Usenet Newsgroup Archive: rec.radio.amateur.antenna

2005-09 - 2005-12

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Date span: 2005-09-01 through 2005-12-31

Source text: rec.radio.amateur.antenna.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 5,364

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 00:10:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hchmsi55e5hc6@corp.supernews.com>
Source record: 71192

Ham op wrote:
>
> A balanced antenna fed with balanced line, and the line goes away from
> the antenna perpendicular [90 degrees angle] for a minimum of 1/4
> wavelength is a properly installed antenna system: [line has minimum or
> no radiation]

The line will have minimum or no radiation only if fed at the transmitter end with a balanced feed. An unbalanced feed will create unequal currents in the conductors, resulting in radiation. A symmetrical (e.g., twinlead) line doesn't assure balance (equal and opposite currents in the two conductors), and an unbalanced line will radiate, regardless of its physical construction.

> A balanced antenna fed with balanced line, and the line goes away from
> the antenna non-perpendicular [other than 90 degrees angle] for a
> minimum of 1/4 wavelength is an improperly installed antenna system:
> [line will radiate]

True for both symmetrical line and coax. Radiation is due to common mode current induced on the line. It can be reduced by inserting "current baluns" (common mode chokes) in the line. A couple spaced about a quarter wavelength apart are usually adequate.

> A balanced antenna fed with un-balanced line, and the line goes away
> from the antenna perpendicular [90 degrees angle] for a minimum of 1/4
> wavelength is an improperly installed antenna system: [line will radiate]

The amount of common mode current and therefore radiation depends on the length of the path along the outside of the coax to ground. A current balun (common mode choke) at the feedpoint will reduce the current and therefore radiation.

> A balanced antenna fed with un-balanced line, and the line goes away
> from the antenna non-perpendicular [other than 90 degrees angle] for a
> minimum of 1/4 wavelength is an improperly installed antenna system:
> [line will radiate]

This is due to induced common mode current. The mechanism is identical to that when a symmetrical line is used.

> A balanced antenna fed with un-balanced line and a properly installed
> balun, and the line goes away from the antenna perpendicular [90 degrees
> angle] for a minimum of 1/4 wavelength is a properly installed antenna
> system: [line has minimum or no radiation].

Correct. A current balun at the feedpoint reduces the conducted common mode current. Induced common mode current is prevented by symmetrical feedline placement.

> An un-balanced antenna fed with balanced line is an improperly installed
> antenna and the line will radiate.

Coax feeding an unbalanced antenna will radiate just as much as twinlead feeding an unbalanced antenna.
>
> NEED I CONTINUE??

A lot of people have learned a list of handy rules like this without having much of an understanding of where they came from or under what circumstances they do and don't apply. For anyone interested in learning more about common mode current, feedline radiation, types of feedlines, and feedline radiation, I suggest taking a look at http://eznec.com/Amateur/Articles/Baluns.pdf. It deals only with conducted common mode current and doesn't discuss induced common mode current -- I'll try to get together a supplement covering that topic when I have time. There was some discussion on this newsgroup not long ago about induced common mode current, but I can't locate the topic right off. It should be possible to find it with a google search. Be sure to also look at the work by Walt Maxwell, W2DU referenced at the end of the balun article.

Roy Lewallen, W7EL

2. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 00:32:16 UTC
From: Greg <gfight@tampabay.rr.com>
Message-ID: <BF3BC55C.46E07%gfight@tampabay.rr.com>
Source record: 71193
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.shortwave

> From: "kegwasher" <nodonkeys@soupnazisforpeace.com>
> Organization: none
> Reply-To: "kegwasher" <nodonkeys@soupnazisforpeace.com>
> Newsgroups:
> rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equ
> ipment,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.shortwave
> Date: Wed, 31 Aug 2005 11:52:17 -0400
> Subject: Re: Amateur Radio Assistance to Katrina Disaster!
>
>
> "laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
> news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
>> I have been watching wwltv.com and wdsutv.com on the Internet.
>> I keep hearing about the lack of emergency services to communicate.
>> Does anyone know if any Amateur Operators are being engaged to assist?
>>
>
> The West Gulf ARES Emergency Net remains active (7.285 MHz days/3.873 MHz
> nights), and radio amateurs not involved in emergency communication have
> been asked to keep these frequencies clear when the net is in session.
> (this is an emergency H&W freq)
>
> A high volume of health-and-welfare requests reportedly is slowing the
> passage of critical tactical and emergency traffic. The Salvation Army Team
> Emergency Radio Network (SATERN) on 14.265 MHz has been accepting and
> handling general health-and-welfare inquiries on the air and via its Web
> site.
>
There's also a health & welfare net on 3.935 LSB, Louisiana based, I think.

Greg

3. Re: Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 01:09:37 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <uJGdnQqfi_pFyYveRVn-tw@comcast.com>
Source record: 71194

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1125519228.281357.3190@z14g2000cwz.googlegroups.com...
> My old Cushcraft A3 is more than likely due for a take down and
> refurbish. Ive not really touched it in a long time and have never
> opened the traps. 15m is suffering so I may have a bad trap.
>
> So, I did a net search and not too many have posted how its done.
> SOOOO, with that I come hat in hand for hints/tips etc from those that
> have went there.
>
> Scotty N7HJ
>

Scotty -

The first step I would take is get replacement stainless steel hardware - IF this was version before that usage.

These web pages may be helpful
http://www.iol.ie/~bravo/Troubleshooting%20Traps.htm

If you try to disassemble the driven element traps on the Cushcraft A3 - the proper way to remove the trap covers is to slip the black trap caps off. If the traps have been up in the weather for a while, it may be difficult to remove them without breaking them.
You can order replacement caps from Cushcraft. they were around $1.30 apiece in 2001. There are 24 caps on an A3S.

When your A3 was new, the traps had a paper sticker indicating which was which. Why the traps weren't engraved or marked with a permanent sticker is a mystery that only CC can answer. Taking them apart though is not one of them though! Inside - the traps look the same.

1) Attach them using very short leads to a HP network analyzer and punch up the Smith chart. Start around 18 Mhz , and crank the frequency up until the readout on the display switches from inductance to capacitance. Note that
frequency. You will find 2 whose frequency is about 150Kz higher than the other 4.

2) Use a grid dip meter placed end to end on a non-conductive table to determine which 2 resonate higher that the other 4. The network analyzer is a better approach.

Cushcraft directions (via email on towertalk / contesting.com) for trap disassembly:

The traps of the A3 and A3S can only be separated one way.
First of all, the 10 meter traps are the same and you can use them in any position. Be sure the end with the contact screw for the body to element junction is
nearest the boom.
The 15 meter traps can be identified by the fact that they are "swagged" to a smaller tubing size on the outboard side. There are 2 different types of 15 meter traps. 4 of the traps are used in the reflector and driver elements. There are two 15 meter traps that are used in the director and they have a higher frequency of resonance. That is the only way to tell the difference. Check the traps with a dip meter and that should tell you which are which."

Cushcraft used to perform this service often for a nominal fee, but it looks like that level of support has stopped.

4. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 01:12:59 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <j-udnVn2NI08yIveRVn-3A@comcast.com>
Source record: 71195

"Rick Scott" <RickN7HJ@gmail.com> wrote in message
news:1125521743.045175.230160@f14g2000cwb.googlegroups.com...
> Hope not according to wunderground.com Union MS only recieved wind
> gusts of 51mph.
>
> http://www.wunderground.com/history/airport/KMEI/2005/8/29/DailyHistory.html
>
Say, the barometric pressure was still quite low ... even that far north.

gb

5. Re: Dual Band "on glass" antennas, good or bad? BAD

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 01:14:25 UTC
From: Steve <sahd@hotmail.com>
Message-ID: <2KKdndC7UN5lyIveRVn-og@comcast.com>
Source record: 71196

I have an on glass on my truck and it works well. I have used them for a few years.
If your using FM Repeaters, they do just fine.

Steve

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message news:rOoRe.3022$xw1.2740@bignews6.bellsouth.net...
> BAD
> "Michael Herron" <hurricane145@worldnet.att.net> wrote in message
> news:xgaRe.3851$kn4.1241@bgtnsc04-news.ops.worldnet.att.net...
>> What do youse guise think of on glass dualband 2/440 antennas? I have
> never
>> used one but are now considering it as an option rather than drilling a
> hole
>> in the roof of my new Chev Silverado. An on glass antenna would also be
> much
>> easier to route the coax with rather than needing to remove the
>> headliner.
>> Anyone out there that was impressed or particularly dissappointed by on
>> glass antenna performance? Any issues with mounting on a window that has
> the
>> defog element in it? Thanks, Mike K7MH.
>>
>>
>
>

6. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 01:14:31 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <l6qdna_bJc5gyIveRVn-rg@comcast.com>
Source record: 71197

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
>I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?
>
>
I was listening to West Gulf ARES Emergency traffic on 40 meters late this
afternoon.

gb

7. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 01:15:57 UTC
From: wizard12342002@yahoo.com
Message-ID: <1125537357.289743.279370@g44g2000cwa.googlegroups.com>
Source record: 71198

Thanks all for the replies.

-JJ

ml wrote:
> In article <43151589_3@news1.prserv.net>,
> "Crazy George" <munsch@atglobal.net> wrote:
>
> > There is one additional step which seems, from many anecdotal references, to
> > provide further help. Somewhere along the
> > cable route, run the coax through at least two sections of steel electrical
> > conduit. Size immaterial, and grounding
> > optional. And they need not be connected together. Theories about why this
> > works run from it forms a lossy coax for
> > the lightning induced wave on the outside, to impedance mismatch on the
> > outside to eddy current losses in the steel.
> > Whatever the mechanism, I know of several locations where it seems to have
> > reduced the damage from continuing lightning
> > strikes. And it is certainly cheap enough to include.
> >
> > --
> > Crazy George
> > The attglobal.net address is a SPAM trap. Please change that part to:
> > att<dot>biz properly formatted.
> >
> > <wizard12342002@yahoo.com> wrote in message
> > news:1125443164.355999.136830@g47g2000cwa.googlegroups.com...
> > > Suppose I have an antenna some distance from the house. I run the
> > > transmission line down from the antenna, bury the line, run it
> > > underground to the house, place a lightning arrestor and ground just
> > > outside the house, then run the transmission line up the side of the
> > > house to the operating position on the second floor. Does anyone see a
> > > problem with this arrangement? I can't imagine that a lightning would
> > > "want" to travel back up toward the operating position when it has a
> > > good ground (at the arrestor) closer to the antenna.
> > >
> > > -JJ
> > >
>
> i wonder if anyone did any actual research on adding some pipe
> sections?? wonder if that would woork?
>
>
> i'd also recomend some good lightning surperssors such as those made
> by ice they seem about the best

8. Re: BBB Complaint # 414840 against Bozak Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 01:17:52 UTC
From: FredSmith <nospam@nospam.net>
Message-ID: <tflch1155vfgc23ncsneekbd3dd53q86fu@4ax.com>
Source record: 71199

Sounds like you simply need to contact your credit card company with a copy of the original quote and have them credit you with the difference. They should be willing to take care of this without any problem; at least that's been my experience.

Good luck
Fred

On Wed, 31 Aug 2005 16:51:58 GMT, your name <you@company.com> wrote:

>COMPANY OR ORGANIZATION INFORMATION:
>
>Bozak Antenna
>8 Timberwick Drive
>Clifton Park, NY United States 12065
>(518)373-8069
>http://www.bozak.org
>http://members.tripod.com/~Bozak/HOMEPAGE.HTM
>
>
>COMPLAINT INFORMATION:
>
>Complaint #: 414840
>Complaint Type: Company (other than automobile)
>Date Received: 9/12/2001
>Primary Complaint Classification: Credit or
>Billing Disputes
>Secondary Complaint Classification: Delivery
>Issues
>Complaint:
>
>To whom it may concern:
>
>Mr. Steve G. Bozak was contacted in mid July 2001
>regarding products (eg.
>antennas and coax cables) which were available
>for sale from his firm. Mr.
>Bozak quoted prices and then later changed the
>quote to reflect higher prices
>(25% higher) without my authorization. Mr. Bozak
>concludes that since I gave
>my credit card info that I agreed in principle
>with the altered price quote
>(which I did not agree too).
>

>In addition to the order being 2-3 weeks late
>(because his firm did not have
>enough coax cable on hand), I then had to follow-
>up and specifically request
>a copy of the original billing invoice. When the
>invoice was finally received
>in late August, and after noting the higher
>prices charged, I immediately
>called and complain to Greg (Bozak's sales rep).
>Greg was informed that I
>received a lower price quote in mid July. Greg
>requested that I forward that
>quote which I did. After reviewing, Mr. Bozak
>wrote back on September 12,
>2001 that "I am sorry for the confusion about the
>prices.... every effort
>has been made so this does not happen."
>
>Thus, Mr. Bozak concedes that he (and his
>organization) screwed up but they
>want me to eat the higher costs. This is why this
>matter is being forwarded
>to your offices for recording and resolution
>purposes. Prospective customers
>need to know about Bozak's deplorable customer
>service/business practices.
>
>

9. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 02:13:24 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <431663C4.5070204@comcast.net>
Source record: 71200

Walt,

I reported a model at the following link:

http://www.smeter.net/feeding/feedpowr.php

At resonance it reports a 'normal' pattern. Off resonance it reports up to 90% feedline radiation. I intend to mimic the results this weekend. I will build a 10 meter dipole, misfeed it, an measure the results. I will let you know.

Dan

Walter Maxwell wrote:
> On Tue, 30 Aug 2005 20:05:05 -0700, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>I have tried several parameters and have gotten results from a very low level
>>with a close match to over 90% of power radiated in the feedline when the dipole
>>resonance is far from the transmit frequency.
>>
>>We may use this model for a couple of things. It is available and it predicts
>>radiation. That gives the opportunity to create a test. I for one are willing to
>>experiment.
>>
>>Dan
>
>
> Will you please describe the details of your experiment where you
> claim 90% of the power is radiated from the feedline? How did you make
> this measurement?
>
> Walt, W2DU
>

10. Re: Looking for help regarding satellie antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 02:21:41 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <VAtRe.33526$yv2.4518@trnddc04>
Source record: 71201

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:666-43154E03-1184@storefull-3255.bay.webtv.net...
> Roger, ZR3RC wrote:
> "These dishes also have very narrow beamwidth making their aiming very
> precise."
>
> You are right. Even an 18-invh dish needs a pretty good elevation angle
> in the UK to get best reception in the KU band from a satellite parked
> over the equator. I checked the Direct TV website. A geostationary
> synchronous bird flys at more than 22 000 miles above the earth`s
> surface. The horizontal distance is always a fraction of the altitude of
> the satellite, so the elevation angle for line of sight is substantial
> no matter what the azimuth. I am still puzzled as to why so many dishes
> I saw in Scotland were aimed so low.
>
>>
>>
> Best regards, Richard Harrison, KB5WZI

Richard

I suspect that you have confused yourself about the distance and elevation angle to satellites. I'm sure you can clear up the situation if you consider the distance to the geostationary satellite 22,300 miles above the equator when it is viewed from somewhere near the North or South Pole.

Jerry

11. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 02:39:52 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <YRtRe.33667$yv2.3040@trnddc04>
Source record: 71202

Reg Edwards wrote:
> I am truly disappointed with the long-running discourse on balanced
> and unbalanced feedlines and the power radiated therefrom. It's been
> going on for years.
>
> Nobody, especially poor novices, has ever learned anything from it.
>
> 99% of it is bafflegab.
>
> Few of us understand what on Earth is being waffled about. And those
> who do, prefer not to waste their time by joining in.
>
> The reason I'm making this seemingly outrageous statement is that
> NOBODY HAS EVER QUANTIFIED, not even once, what they are waffling
> about. This demonstrates a great ignorance of the subject.
>
> (Remember what Lord Kelvin said about the ability to measure and
> quantify what it is you are gabbing about and how that ability is
> directly related to what you really know about it.)
>
> Perhaps somebody might be prepared to state the power actually
> radiated from feedlines in watts. At least it may create the
> impression you know what you are talking about.
>
> It might possibly be at such a low level that, in the great majority
> of cases, it's not worth all the megabytes of bandwidth which are
> wasted on it.
>
> As an unbiased World Citizen, I now find myself half-way down a bottle
> of Merlo, 2000, a produce of France. But I have in reserve some decent
> Californian stuff.
>
> May I say how saddened I am to learn about the terrible disastrous
> storm which has befallen some of the Southern states.
> ----
> Reg, G4FGQ
>

Instead of sitting around for years reading the "bafflegab" and then complaining about it, why didn't you QUANTIFY it yourself and report it so as to make yourself useful?

John

12. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 02:48:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125543053_783@spool6-east.superfeed.net>
Source record: 71203

dansawyeror wrote:
> At resonance it reports a 'normal' pattern. Off resonance it reports up
> to 90% feedline radiation. I intend to mimic the results this weekend. I
> will build a 10 meter dipole, misfeed it, an measure the results. I will
> let you know.

Try "misfeeding" a 10m dipole with N*1/2WL 450 ohm ladder-line
through a good choke and get back to us. (N is a natural number)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

13. Re: Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 03:24:17 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <RrKdnf9zaobS6YveRVn-hw@comcast.com>
Source record: 71204

gb wrote:

Outstanding information. Exactly what I needed. Thanks a ton

Scotty N7HJ

14. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 03:30:25 UTC
From: Crazy George <munsch@atglobal.net>
Message-ID: <43167b70_1@news1.prserv.net>
Source record: 71206
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

They are still on here in San Antonio. I no longer recall exactly where their transmitter is located, and haven't
taken time to look it up on one of the look up sites. The one I used to use and have stored in my favorites is gone,
and I haven't replaced it. Do you have the transmitter location? I *think* it is somewhere in Jefferson Parish.

--
Crazy George
The attglobal.net address is a SPAM trap. Please change that part to: att<dot>biz properly formatted.

<nm5k@wt.net> wrote in message
news:1125531270.935221.22570@f14g2000cwb.googlegroups.com...
> I've been getting a good signal on WWL 870 in the daytime
> using my big indoor loop. ....
>
> Dang, I just checked it now, and it *seems* to be off the air...
> Hope it's just propagation.... Hope they didn't finally lose
> power... It is 6.30 PM, so it's possible I just lost them due
> to the propagation...I get them much better in the day, than
> night. I hear a station on freq, but don't know if it's them or not.
> MK
>

15. Re: Dual Band "on glass" antennas, good or bad?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 03:31:06 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <oAuRe.10738$ON5.4817@bignews1.bellsouth.net>
Source record: 71205

Use a mag-mount. Route the coax out the bottom of the side window.
You don't have to drill. A piece of saran wrap protects the paint.
A friend I know used a stick-on-the-glass antenna to make the xyl happy.
He had trouble with the swr swinging all over the place.
I forget the brand he used.

"Michael Herron" <hurricane145@worldnet.att.net> wrote in message
news:xgaRe.3851$kn4.1241@bgtnsc04-news.ops.worldnet.att.net...
> What do youse guise think of on glass dualband 2/440 antennas? I have
never
> used one but are now considering it as an option rather than drilling a
hole
> in the roof of my new Chev Silverado. An on glass antenna would also be
much
> easier to route the coax with rather than needing to remove the headliner.
> Anyone out there that was impressed or particularly dissappointed by on
> glass antenna performance? Any issues with mounting on a window that has
the
> defog element in it? Thanks, Mike K7MH.
>
>

16. Re: The penis is way too delicate for masturbation

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 04:18:50 UTC
From: Hazel <none@nospam.ir>
Message-ID: <rivRe.7831$2F1.489341@news20.bellglobal.com>
Source record: 71207
Cross-posted to: rec.radio.amateur.antenna,alt.religion.wicca,alt.os.linux.slackware,alt.anti-ebay,rec.arts.sf.composition

dgr1400@hotmail.com wrote:

> .
OK, so play with your cock instead.

17. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 05:32:16 UTC
From: WCB <wbarwell@Mungggedd.mylinuxisp.com>
Message-ID: <11hd3rgs0rf4m77@corp.supernews.com>
Source record: 71208
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna

Matthew Weber wrote:

> WCB wrote:
>
>>Matthew Weber wrote:
>>
>>
>>
>>>Cecil Moore wrote:
>>>
>>>
>>>
>>>>Dave Althoff, Jr. wrote:
>>>>
>>>>
>>>>
>>>>>Do you believe the Bible to be the "Word of God"? Or the "Words of
>>>>>God"?
>>>>>
>>>>>
>>>>Actually, the word or words of "Elohim", i.e. Gods.
>>>>Elohim is *PLURAL*. Yahweh was one of the Elohim.
>>>>
>>>>
>>>Yes, Elohim is a plural word. It doesn't necessarily signify that
>>>Yahweh is one of many gods. Some grammarians have referred to it as a
>>>"plural of majesty".
>>>
>>>
>>>
>>
>>See Genesis 6, god has a number of sons,
>>when the bible says gods, plural, it means that literally.
>>
>>
>>
> How do you figure? That isn't in line with anything found elsewhere in
> the Bible, or any respectable hermeneutic.

Read Genesis 6. We get only heavily edited, redacted bits and pieces
of old myths. Much has been thrown out, edited out, gone
forever.
We just a few bits of the old myth peeking out through cracks in the
old testament.

Where did they come from? What was the deal with them? Well
that has been edited out and we wil never know, except
the fossil language. Behold the man has become one of us to know
good and evil... Why the magic fruit trees? There is a lot
that was taken out of the original myths.

--

Xenu is around and about,
mention Hubbard, Xenu pops out!
No way for the clams to stamp Xenu out,
Xenu is around and about!

Cheerful Charlie

18. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 07:24:45 UTC
From: kashe@sonic.net
Message-ID: <a4bdh1d8jf7uithnugf9o7lnej7c8ollg9@4ax.com>
Source record: 71211

On Tue, 30 Aug 2005 17:19:51 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>Like someone else said - instead of a trencher, why not try a edger.
>You can buy an electric edger and a long extension cord cheap enough -
>probably cheaper than renting a trencher.
>I heard one person say he just purchared a new chain for his chainsaw - and
>used the old chain to make the trenches for radials.

Great way to destroy the bar slot before installing the new
chain.

>Another thought - don't do radials at all - hire a front-end-loader to bury
>a few chain-link fence sections and tie ground to them.
>
>Be sure to grunt like the tool-man when installing the radial system - its a
>tradition.
>
>

19. Re: ENOUGH OF THIS!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 07:30:59 UTC
From: kashe@sonic.net
Message-ID: <4gbdh1d4g7mkqbcvacg8utfn0a8vhlf6cj@4ax.com>
Source record: 71212
Cross-posted to: rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler

On Wed, 31 Aug 2005 19:14:11 -0400, Ham op <hamop@comcast.net> wrote:

>Matthew Weber wrote:
>
>> Cecil Moore wrote:
>>
>>> Tony Elka wrote:
>>>
>>>> You do realize that Texas was part of Mexico before we stole it?
>>>
>>>
>>>
>>> Texas was actually stolen four or five times and one
>>> time Mexico was the thief when they stole Texas from
>>> Spain. Texas was originally stolen by the Europeans
>>> from the Indians who thought owning land was a ridiculous
>>> concept.
>>
>>
>> And look where that attitude got them!
>
>Yep!! They rob the white man today ... Foxwoods, Mohegan Sun, etc.
>
>For the uninitiated, Foxwoods et al are gambling casinos on indian
>reservations.
>>

What goes around ....

Tough when the second shoe fits too tight, huh?

20. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 07:34:54 UTC
From: kashe@sonic.net
Message-ID: <pnbdh1l3lbce2u0uo61r0heepe9uf78i4d@4ax.com>
Source record: 71213

On Tue, 30 Aug 2005 23:34:00 GMT, Russ <carlzomer@hotmail.com> wrote:

>On 30 Aug 2005 16:06:04 -0700, wizard12342002@yahoo.com wrote:
>
>>Suppose I have an antenna some distance from the house. I run the
>>transmission line down from the antenna, bury the line, run it
>>underground to the house, place a lightning arrestor and ground just
>>outside the house, then run the transmission line up the side of the
>>house to the operating position on the second floor. Does anyone see a
>>problem with this arrangement? I can't imagine that a lightning would
>>"want" to travel back up toward the operating position when it has a
>>good ground (at the arrestor) closer to the antenna.
>>
>>-JJ
>
>There are sooo many digits to the left of the decimal in lightning
>that ALL bets are off if it strikes the antenna.

Words to live (longer) by. :-)

> The arrestor will
>ground induced voltages from nearby strikes and wind ot precip static.
>Ground your antenna when not in use by diconnecting the feedline and
>grounding both sides. Don't operate when mother nature is
>transmitting.
>
>R

21. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 07:35:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <df6b07afr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71214

"Walter Maxwell" wrote
> Will you please describe the details of your experiment where you
> claim 90% of the power is radiated from the feedline? How did you
make
> this measurement?
>
==========

Walt,

If you erect a 10 meter 1/2-wave dipole and center-feed it with a 50 feet length of coax, and then transmit on 1.9 MHz, 99.9 percent of available power will be radiated from the feedline and only 0.1 percent from the antenna itself.

SWR on the line will be about 1400 and the amount of power available will not be very great.

Reg.

22. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 08:18:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hdeb436tdo741@corp.supernews.com>
Source record: 71215

If anyone besides me is having trouble keeping track of what Reg is trying to say, maybe the following recent quotes will help. That is, they'll help you understand why you're having trouble keeping track.

For what it's worth, I agree with the first quotation of 8/31. But apparently Reg doesn't, even though he said it.

Roy Lewallen, W7EL

8/30:

Perhaps somebody might be prepared to state the power actually radiated from feedlines in watts. At least it may create the impression you know what you are talking about.

8/30:

Roy, do everybody a favour, by stating, numerically, how much power is radiated from feedlines. Then somebody might have some confidence in what you are bafflegabbing about.

8/31:

Any current which finds its way on to (3), which ought to flow in the antenna, will result in the coax participating in the radiation pattern of the whole antenna structure.

BUT IT IS A SILLY QUESTION TO ASK HOW MANY WATTS ARE RADIATED FROM THE FEEDLINE.

OR, CONVERSELY, HOW MANY MICROWATTS ARE PICKED UP BY THE FEEDLINE ON RECEIVE.

The feedline cannot be treated in isolation as if it behaves independently of the antenna. For starters, the radiation resistances of the feedline and antenna do not add arithmetically. They interact with each other.

8/31:

If you erect a 10 meter 1/2-wave dipole and center-feed it with a 50 feet length of coax, and then transmit on 1.9 MHz, 99.9 percent of available power will be radiated from the feedline and only 0.1 percent from the antenna itself.

http://www.smeter.net/feeding/feedpowr.php:

Centre-Fed Dipole - Radiation from Coaxial Feedline
Author: R.J.Edwards G4FGQ ï¿½ 25th March 2003

Program Notes
. . .
With no loss in accuracy, to simplify the model, the transmitter is
located at the dipole centre and the coaxial line is replaced by a
single conductor of the same diameter as the coaxial braid. There are 3
radiating elements. Radiation resistance, input impedance, and input
current of each element is calculated. Finally, the percent of total
power radiated by each of the three elements is calculated.

23. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 12:10:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125576769_1949@spool6-east.superfeed.net>
Source record: 71216

Reg Edwards wrote:
> If you erect a 10 meter 1/2-wave dipole and center-feed it with a 50
> feet length of coax, and then transmit on 1.9 MHz, 99.9 percent of
> available power will be radiated from the feedline and only 0.1
> percent from the antenna itself.

I think most RF people would consider radiant heat from the feedline
to be heat dissipation (as opposed to RF radiation).
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

24. Re: Amplifier Opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 12:11:08 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <wdCRe.226160$tt5.43044@edtnps90>
Source record: 71217

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11hcf15p65hrhae@corp.supernews.com...
> Just don't make the common mistake of thinking that the units on your
> receiver's S meter are 6 dB. That can lead to some extremely mistaken
> conclusions.
>
> Hams keep insisting that an "S-unit" is 6 dB, while the marks on typical
> S-meters almost never are, and sometimes are much different (< 2 dB for
> example).
>
> Roy Lewallen, W7EL

The following are my findings on an IC751, which I had previously posted on another NG:
"As an example; the Icom IC-751 S meter calibration procedure requires that the S meter adjustment pot be set to S9 +40dB, with 5 mV at the antenna input. The S meter should then be verified to show: S8 - S9 with 50 uV input, and S2 - S3 with 5 uV input. Note that this approximates to 3.33dB per S unit. The amateur standard has traditionally been 6 dB per S unit.

I have calibrated my IC-751 as per the manual instructions. 50 uV reads S9 + 15 dB, and 5uV reads S5. Increasing the generator above 5uV requires 11 dB to reach S9, or 2.75 dB per S unit."

I have seen it claimed that linear amplifiers often provide more than the theoretical gain, and that the cause is some indefinable ionospheric nonlinearity rather than meaningless S meters!

Regards,

Frank

25. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 12:56:20 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <45e80$4316fa83$471c610a$30252@ALLTEL.NET>
Source record: 71218

Reg, put up the corkscrew, your arguing with yourself. Here, we put people
in rubber rooms that exhibit these propensities...

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:df6b07afr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Walter Maxwell" wrote
> > Will you please describe the details of your experiment where you
> > claim 90% of the power is radiated from the feedline? How did you
> make
> > this measurement?
> >
> ==========
>
> Walt,
>
> If you erect a 10 meter 1/2-wave dipole and center-feed it with a 50
> feet length of coax, and then transmit on 1.9 MHz, 99.9 percent of
> available power will be radiated from the feedline and only 0.1
> percent from the antenna itself.
>
> SWR on the line will be about 1400 and the amount of power available
> will not be very great.
> ----
> Reg.
>
>

26. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 14:05:56 UTC
From: richardharrison@webtv.net
Message-ID: <574-43170AC4-156@storefull-3257.bay.webtv.net>
Source record: 71219

Roy, W7EL wrote:
"The calculations you qupte assume equal and opposite (i.e. purely differential mode) currents in the feedline conductors. The topic under discussion is radiation due to common mode current."

Radiation from current on the outside of a coax feedline can be calculated too by using formulas appropriate to the actual current distribution.

Refer to the infamous "ARRL Antenna Book" figure (Fig 24 on page 26-16 of my 19th edition), "showing various current paths at feed point of a balanced dipole fed eith unbalanced coaxial cable."

From the text:

"The antenna current in arm 2 is thus equal to the difference between I2 and I3.

The magnitude of I3 (on coax exterior) is proportional to the relative impedance in each current path beyond the split."

Best regards, Richard Harrison, KB5WZI

27. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 14:22:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125584786_2041@spool6-east.superfeed.net>
Source record: 71220

Richard Harrison wrote:
> "The antenna current in arm 2 is thus equal to the difference between I2
> and I3.
> The magnitude of I3 (on coax exterior) is proportional to the relative
> impedance in each current path beyond the split."

Could be Roy or Walt wrote that. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

28. Re: Amplifier Opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 14:31:50 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <us-dnauH-ItPjYreRVn-1A@comcast.com>
Source record: 71221

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:wdCRe.226160$tt5.43044@edtnps90...
>
> I have seen it claimed that linear amplifiers often provide more than the
> theoretical gain, and that the cause is some indefinable ionospheric
> nonlinearity rather than meaningless S meters!
>
> Regards,
>
> Frank
>
We should not confuse more than advertized gain with more than advertized output, though. A 1KW amplifier could quite likely have 1KW output with 70W in. That does not mean 1.2KW linear output with 120W in. Still, the extra gain is useful; some claimed 100W radios will not put out 100W on all bands.

Tam/WB2TT

29. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 15:26:40 UTC
From: "Percival P. Cassidy" <Nobody@NotMyISP.net>
Message-ID: <Q4FRe.2472$3R1.1179@fe06.lga>
Source record: 71222
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Look at the top two items at http://www.arrl.org/ (as of 1120 EDT on Sept. 1).

NPR interviewed Ben Joplin WB5VST about his part in a multi-stage relay that resulted in the rescue of 15 people:

http://www.npr.org/templates/story/story.php?storyId=4824598

WOOD-TV in Grand Rapids, MI yesterday aired an interview with local hams about the usefulness of amateur radio in emergency situations:

http://www.electroblog.com:8090/~electrode/woodtv_nts.avi

"Perce"
(aka Alan NV8A)

On 08/31/05 09:48 am laborkei tossed the following ingredients into the ever-growing pot of cybersoup:

> I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?

30. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 15:47:42 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <yoFRe.73520$DW1.40416@fed1read06>
Source record: 71223
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

See URL:
http://www.arrl.org/news/stories/2005/08/30/1/

--
CL -- I doubt, therefore I might be !

"Percival P. Cassidy" <Nobody@NotMyISP.net> wrote in message
news:Q4FRe.2472$3R1.1179@fe06.lga...
> Look at the top two items at http://www.arrl.org/ (as of 1120 EDT on Sept.
> 1).
>
> NPR interviewed Ben Joplin WB5VST about his part in a multi-stage relay
> that resulted in the rescue of 15 people:
>
> http://www.npr.org/templates/story/story.php?storyId=4824598
>
> WOOD-TV in Grand Rapids, MI yesterday aired an interview with local hams
> about the usefulness of amateur radio in emergency situations:
>
> http://www.electroblog.com:8090/~electrode/woodtv_nts.avi
>
> "Perce"
> (aka Alan NV8A)
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>
> On 08/31/05 09:48 am laborkei tossed the following ingredients into the
> ever-growing pot of cybersoup:
>
>> I have been watching wwltv.com and wdsutv.com on the Internet.
>> I keep hearing about the lack of emergency services to communicate.
>> Does anyone know if any Amateur Operators are being engaged to assist?

31. Hurricane Katrina HF Response and Recovery Frequencies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 16:47:53 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <ZgGRe.73526$DW1.67925@fed1read06>
Source record: 71224

From another NG
Hurricane Katrina HF Response and Recovery Frequencies

02802.4 USB American Red Cross Disaster (F-91) **
03171.4 USB American Red Cross Disaster (F-92) **
05136.4 USB American Red Cross Disaster (F-93) **
05141.4 USB American Red Cross Disaster (F-94) **
05211.0 USB FEMA
05236.0 USB SHARES Coordination Network (nationwide HF voice coordination)
06859.5 USB American Red Cross Disaster (F-95) **
07507.0 USB USN/USCG hurricane net (pri)
07550.5 USB American Red Cross Disaster (F-96 - primary) **
07698.5 USB American Red Cross Disaster (F-97) **
09380.0 USB USN/USCG hurricane net (sec)
10493.0 USB FEMA
14396.5 USB SHARES Coordination Network (nationwide HF voice coordination)
** Type-accepted equipment and an issued US FCC license are required to transmit on Red Cross frequencies

AMATEUR HIGH-FREQUENCY GULF COAST HURRICANE NETS

03845.0 LSB Gulf Coast West Hurricane
03862.5 LSB Mississippi Section Traffic
03873.0 LSB Central Gulf Coast Hurricane
03873.0 LSB Louisiana ARES Emergency (night)
03873.0 LSB Texas ARES Emergency (night)
03873.0 LSB Mississippi ARES Emergency
03910.0 LSB Mississippi ARES
03910.0 LSB Louisiana Traffic
03923.0 LSB Mississippi ARES
03925.0 LSB Central Gulf Coast Hurricane
03925.0 LSB Louisiana Emergency (altn)
03935.0 LSB Central Gulf Coast Hurricane
03935.0 LSB Louisiana ARES (health & welfare)
03935.0 LSB Texas ARES (health & welfare)
03935.0 LSB Mississippi ARES (health & welfare)
03935.0 LSB Alabama Emergency
03940.0 LSB Southern Florida Emergency
03950.0 LSB Northern Florida Emergency
03955.0 LSB South Texas Emergency
03965.0 LSB Alabama Emergency (altn)
03967.0 LSB Gulf Coast (outgoing traffic)
03975.0 LSB Texas RACES

03993.5 LSB Gulf Coast (health & welfare)
03995.0 LSB Gulf Coast Wx
07225.0 LSB Central Gulf Coast Hurricane
07235.0 LSB Louisiana Emergency
07235.0 LSB Central Gulf Coast Hurricane
07235.0 LSB Louisiana Emergency
07240.0 LSB American Red Cross US Gulf Coast Disaster
07240.0 LSB Texas Emergency
07243.0 LSB Alabama Emergency
07245.0 LSB Southern Louisiana
07248.0 LSB Texas RACES
07250.0 LSB Texas Emergency
07260.0 LSB Gulf Coast West Hurricane
07264.0 LSB Gulf Coast (health & welfare)
07265.0 LSB Salvation Army Team Emergency Radio (SATERN) (altn)
07273.0 LSB Texas ARES (altn)
07280.0 LSB NTS Region 5
07280.0 LSB Louisiana Emergency (altn)
07283.0 LSB Gulf Coast (outgoing only)
07285.0 LSB West Gulf ARES Emergency (day)
07285.0 LSB Louisiana ARES Emergency (day)
07285.0 LSB Mississippi ARES Emergency
07285.0 LSB Texas ARES Emergency (day)
07290.0 LSB Central Gulf Coast Hurricane
07290.0 LSB Gulf Coast Wx
07290.0 LSB Texas ARES (health & welfare)
07290.0 LSB Louisiana ARES (health & welfare) (day)
07290.0 LSB Texas ARES (health & welfare)
07290.0 LSB Mississippi ARES (health & welfare)
14265.0 USB Salvation Army Team Emergency Radio (SATERN) (health &
welfare) 14300.0 USB Intercontinental Traffic
14300.0 USB Maritime Mobile Service
14303.0 USB International Assistance & Traffic
14313.0 USB Intercontinental Traffic (altn)
14313.0 USB Maritime Mobile Service (altn)
14316.0 USB Health & Welfare
14320.0 USB Health & Welfare
14325.0 USB Hurricane Watch (Amateur-to-National Hurricane Center)
14340.0 USB Louisiana (1900)

--Thanks to:
General Johnson Jameson
USAF Alien Spacecraft Recovery Operations
North American Alliance

--
CL -- I doubt, therefore I might be !

32. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 17:05:33 UTC
From: Ro <roland_lemmersN0ZPAEMM@planet.nl>
Message-ID: <431734d2$0$317$ba620dc5@text.nova.planet.nl>
Source record: 71225

Paul Hinman wrote:
> I came across an interesting antenna the other day on the web. It
> called for four radials for each band that one would want to use it on.
> In order to protect the lawn mower I would like to bury the radials. If
> I use insulated wires for the radials can I bury multiple radials for
> different frequencies in the same trench. I would rent a small trencher
> like they use for underground power and utility feeds, make four
> trenches and drop in the radials, then cover them.
>
> Thanx for any responses.
>
> Paul VE6LDS
That trencher will do the job for you. Here is another tip that worked
like a charm for me. I just can't believe that nobody came up with it
ages ago. Here it comes: "fertilizer!" Use that and the the sky is no
limit. I still recieve Pioneer 10! Need i say more?

Hope this helps.

33. Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 17:07:27 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <95deh15s3g0vkhoirnm5ede0c43783rks8@4ax.com>
Source record: 71126

Hi, I was looking to buy one of these. But running ground radials will be a problem because the area is woods. I was looking to not using ground radials. I do have a small running stream in the woods. Would a ground rod in the stream, offer a good counterpoise that would eliminate the need for radials?

Vinnie S.

34. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 17:31:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125596080_2365@spool6-east.superfeed.net>
Source record: 71127

Vinnie S. wrote:
> Hi, I was looking to buy one of these. But running ground radials will be a
> problem because the area is woods. I was looking to not using ground radials. I
> do have a small running stream in the woods. Would a ground rod in the stream,
> offer a good counterpoise that would eliminate the need for radials?

A ground rod would result in rather high ground losses.
With woods all around, why not put up a multi-band dipole?
--
73, Cecil, http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

35. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 17:37:16 UTC
From: Dave <dave@telnet.com>
Message-ID: <g%GRe.321486$xm3.156926@attbi_s21>
Source record: 71128

Use your lawn edger. Save your money for a toy.

"Ro" <roland_lemmersN0ZPAEMM@planet.nl> wrote in message
news:431734d2$0$317$ba620dc5@text.nova.planet.nl...
> Paul Hinman wrote:
> > I came across an interesting antenna the other day on the web. It
> > called for four radials for each band that one would want to use it on.
> > In order to protect the lawn mower I would like to bury the radials. If
> > I use insulated wires for the radials can I bury multiple radials for
> > different frequencies in the same trench. I would rent a small trencher
> > like they use for underground power and utility feeds, make four
> > trenches and drop in the radials, then cover them.
> >
> > Thanx for any responses.
> >
> > Paul VE6LDS
> That trencher will do the job for you. Here is another tip that worked
> like a charm for me. I just can't believe that nobody came up with it
> ages ago. Here it comes: "fertilizer!" Use that and the the sky is no
> limit. I still recieve Pioneer 10! Need i say more?
>
> Hope this helps.

36. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 18:25:05 UTC
From: MD <mdonoghue4@cogeco.ca>
Message-ID: <4HHRe.7159$884.726844@news20.bellglobal.com>
Source record: 71130

"Fred W4JLE" <fred@w4jle.com> wrote in message
news:e4d2c$4314d2e3$97d55b95$18080@ALLTEL.NET...
> Why do you need one on 80? The reality is if you can hear the other guy,
he
> can hear you. Now if your ego requires that you have to be the first one
in
> the pile to break through, then I guess you need a big amplifier.
>
> My pet peeve is hearing a DX station calling CQ DX and some high powered
> asshole starts out "Good evening again Carlos, your almost as strong as
you
> were last night when we talked........" while some guy with a 100 watts
> gets to set on their thumbs until Got Rocks is through bloviating.
>
> Many are trying to get a new country while Mr. Got Rocks plays "watch this
> you lowly peons". Yes! you asshole in New England, I am refering to you.
You
> splatter the entire DX window and have no regard for your fellow hams...
Not
> one time have I heard him say, "Carlos listen for KB2***, he is trying to
> call you".
>
> Boy, I am glad I got that out of my system. :>)

I know the feeling Fred. I was trying to work a new SA station on 17m the other night with my measly 100w to an R7. Time after time I would hear the DX station say.."nice to work you again ________", one guy he even commented on working about 6 times over the last year. Well I finally worked him for the new one, only to find I had already worked him on 20m 14 years ago. At least it wasn't on the same band!

Max

37. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 18:25:49 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <a5b5e$431747b4$471c610a$32175@ALLTEL.NET>
Source record: 71129
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

I am a DEC with ARES and have been told by a number of newer hams that ARES is obsolete in the 21st Century.

It was pointed out to me that echo link, cell phones, wireless internet etc etc. obviated the need for a "bunch of old farts" that couldn't read the handwritting on the wall...

We all watched in amazement as New Orleans was relagated to the Stone Age. All the wizz bang technology fell on it's hind parts. No cell phones, no internet, no echo link, no communications.

No emergency system that relies on intact infrastructure can be relied upon period! Those who fail to heed this lesson, are doomed to repeat it.

Now take it one step further and change the disaster to a nuclear explosion. The EMP wipes out all the rest of the neat toys necessary to communicate in the digital modes.

The SOS and requests for help being transmitted on CW from an old tube type rig go unanswered, as no one can understand code. Mores the pity.

38. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 18:42:08 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <emieh1lvq0sa7dqoskft3hj6gkg7g2ctt5@4ax.com>
Source record: 71131

On Thu, 01 Sep 2005 12:31:06 -0500, Cecil Moore <w5dxp@hotmail.com> wrote:

>Vinnie S. wrote:
>> Hi, I was looking to buy one of these. But running ground radials will be a
>> problem because the area is woods. I was looking to not using ground radials. I
>> do have a small running stream in the woods. Would a ground rod in the stream,
>> offer a good counterpoise that would eliminate the need for radials?
>
>A ground rod would result in rather high ground losses.
>With woods all around, why not put up a multi-band dipole?

That was my first choice. I am not strong on antenna theory, so I and afraid to
build one. I was looking at a Alpha Delta DX-CC, but they have been on backorder
sonce March. I emailed them 3 weeks ago, and they said 7-10 days. I emailed them
again today, and they said 2 weeks. I liked that antenna because of the coax
feed. I was trying to sta away from the other dipole that use ladder line.

Vinnie S.

39. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 18:56:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125601187_2575@spool6-east.superfeed.net>
Source record: 71132

Vinnie S. wrote:

> <w5dxp@hotmail.com> wrote:
>>A ground rod would result in rather high ground losses.
>>With woods all around, why not put up a multi-band dipole?
>
> That was my first choice. I am not strong on antenna theory, so I and afraid to
> build one. I was looking at a Alpha Delta DX-CC, but they have been on backorder
> sonce March. I emailed them 3 weeks ago, and they said 7-10 days. I emailed them
> again today, and they said 2 weeks. I liked that antenna because of the coax
> feed. I was trying to sta away from the other dipole that use ladder line.

A 130 ft. dipole fed with 450 ohm ladder-line through a good
choke is hard to beat as an all-HF-band antenna and costs
about $25.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

40. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 19:38:35 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <%MIRe.5270$_84.3397@newsread1.news.atl.earthlink.net>
Source record: 71133

"Ham op" <hamop@comcast.net> wrote in message
news:NqOdnbmOQvihpIveRVn-jA@comcast.com...
> 7.78 Db BETTER [+1 1/4 S unit] than 100 watts.
>
> Upgrade the vertical to a beam and the net gain can be as high as +19.78
> dB [3+ S units] on the path:
> 1] + 6 dB in receive
> 2] + 6 dB in transmit
> 3] + 7.78 dB for the amplifier.
>
> For $1400, a beam has a much better return on investment than an
> amplifier by itself.
>
> The #1 rule I teach new or aspiring hams is "Your station efficiency,
> and your enjoyment, is directly proportional to your antenna."
>
I will agree that it is best to go with a beter antenna, sometimes it is just not practical. Not many can put up a beam for 80 meters and not that many for ever 40 meters. Most amps will do 80 to 15 meters. Some will go to 10 meters. The specs for a TH3 tribander is only 5.8 db over a dipole. That is slightly less than 4 times the power. That is only for 20,15, 10 meters. That only takes your 100 watt rig to 400 watts. An amp that is worth buying will put out atleast 600 to 800 watts and you can almost double that and stay legal.

If you have to pay someone to put your beam antenna, the cost will go way over the $ 1400.

The thing of hearing a station and he can hear you is also bogus in some cases. I was trying to work a mobile on 80 meters that was parked running 100 watts. I could hear him just fine. About 1/4 scale on my S-meter. He could not hear me for some local (to him) qrm and qrn. By turning on my amp we could work each other.

The amp will not let you turn it to cut out some qrm/qrn like the beam may.

41. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 19:42:26 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11hemcsgces66a0@corp.supernews.com>
Source record: 71134

"Vinnie S." <none@coldmail.com> wrote in message
news:95deh15s3g0vkhoirnm5ede0c43783rks8@4ax.com...
> Hi, I was looking to buy one of these. But running ground radials will be
> a
> problem because the area is woods. I was looking to not using ground
> radials. I
> do have a small running stream in the woods. Would a ground rod in the
> stream,
> offer a good counterpoise that would eliminate the need for radials?
>
> Vinnie S.

Hustler 5BTV popular here and used at about 4 1/2 inches off the ground
without radials.
May have to do with pretty good soil conductivity here in south central
Oklahoma. Our local Elmer tells us ground moisture hasn't much to do with
effective antennas. Quien Sabe?

Harold
KD5SAK

42. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 20:41:13 UTC
From: chuck <nospam@nospam.net>
Message-ID: <JHJRe.5210$9i4.1783@newsread2.news.atl.earthlink.net>
Source record: 71135

As an alternative to a trap vertical, you might consider a horizontal
trap dipole.

Probably cheaper than the Hustler and a pretty good performer if the
trees in the woods are high enough (at least 30 feet).

They come in different lengths based, in part, on the lowest design
frequency.

No radials or tuner required. Ultra simple.

73,

Chuck

Vinnie S. wrote:
> Hi, I was looking to buy one of these. But running ground radials will be a
> problem because the area is woods. I was looking to not using ground radials. I
> do have a small running stream in the woods. Would a ground rod in the stream,
> offer a good counterpoise that would eliminate the need for radials?
>
> Vinnie S.

43. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 20:47:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11heq6fkbsp4q53@corp.supernews.com>
Source record: 71136

Ralph Mowery wrote:
> . . .
> The thing of hearing a station and he can hear you is also bogus in some
> cases. I was trying to work a mobile on 80 meters that was parked running
> 100 watts. I could hear him just fine. About 1/4 scale on my S-meter. He
> could not hear me for some local (to him) qrm and qrn. By turning on my amp
> we could work each other.
> . . .

The idea that if you can hear a station he can hear you is totally wrong, especially at HF. At HF, you can have a terribly inefficient antenna and hear people just fine. This is because the dominant noise is coming from outside the receiver and therefore both signal and noise are attenuated by the same amount by the loss. I can easily hear 20 meter DX on my little Sony SW radio with a 2 foot rod antenna. But there's no hope they'd hear me if I were transmitting with that antenna, even if I'm running an equal or much greater amount of power than they are.

At VHF and above, where receiver noise dominates, a station you hear can hear you if you're running about the same amount of power and if your receivers have about the same noise figure. But this isn't at all true at HF and below.

Roy Lewallen, W7EL

44. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 20:57:44 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <htpeh1d1ngbid9k6tl1hb9ecoo3j99qkao@4ax.com>
Source record: 71137

On Thu, 01 Sep 2005 13:07:27 -0400, Vinnie S. <none@coldmail.com>
wrote:

>Hi, I was looking to buy one of these. But running ground radials will be a
>problem because the area is woods. I was looking to not using ground radials. I
>do have a small running stream in the woods. Would a ground rod in the stream,
>offer a good counterpoise that would eliminate the need for radials?

My experience was with a 4BTV that was mounted about 15' above ground
with several sets of (nominally) resonant radials. This was better
than a dummy load, but not much.

I second the idea of one or more dipoles in the trees. Without a
decent ground -and- being in the trees, the vertical will be a very
big disappointment I'm afraid.

I don't see the appeal of one antenna that is capable of being matched
on every band, when the radiation is poor. The Alpha-Delta DX-CC
leaps to mind.

Pick two or three bands and get your feet wet. The higher bands are
poor these days anyway. I would put up a dipole for 20 and one for
80. These can be fed in parallel without interaction if place at
right angles to each other. You will have a daytime band and a
nighttime band and you will make contacts.

What do you have to lose or fear? You need the coax and balun anyway
and a few bucks worth of wire and you're in business.

45. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 21:07:05 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <fsqeh1thvjkea82ldplltv6f9jd5bdh04j@4ax.com>
Source record: 71138

On Thu, 1 Sep 2005 14:25:05 -0400, "MD" <mdonoghue4@cogeco.ca> wrote:

>
>"Fred W4JLE" <fred@w4jle.com> wrote in message
>news:e4d2c$4314d2e3$97d55b95$18080@ALLTEL.NET...
>> Why do you need one on 80? The reality is if you can hear the other guy,
>he
>> can hear you. Now if your ego requires that you have to be the first one
>in
>> the pile to break through, then I guess you need a big amplifier.
>>
>> My pet peeve is hearing a DX station calling CQ DX and some high powered
>> asshole starts out "Good evening again Carlos, your almost as strong as
>you
>> were last night when we talked........" while some guy with a 100 watts
>> gets to set on their thumbs until Got Rocks is through bloviating.
>>
>> Many are trying to get a new country while Mr. Got Rocks plays "watch this
>> you lowly peons". Yes! you asshole in New England, I am refering to you.
>You
>> splatter the entire DX window and have no regard for your fellow hams...
>Not
>> one time have I heard him say, "Carlos listen for KB2***, he is trying to
>> call you".
>>
>> Boy, I am glad I got that out of my system. :>)
>
>I know the feeling Fred. I was trying to work a new SA station on 17m the
>other night with my measly 100w to an R7. Time after time I would hear the
>DX station say.."nice to work you again ________", one guy he even commented
>on working about 6 times over the last year. Well I finally worked him for
>the new one, only to find I had already worked him on 20m 14 years ago. At
>least it wasn't on the same band!

Do any of you ever think that the DX stations just might get tired of
giving out 59s (or 33s in you guys cases) and might actually want to
engage in some civilized conversation with someone they've worked over
and over?

If a big antenna and higher power make this more enjoyable, what's the
issue? Oh, I almost forgot, this is the land of welfare and
entitlements.

46. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 21:09:41 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <e6b27$43176e1c$471c610a$5928@ALLTEL.NET>
Source record: 71139

Come on Roy, your picking an example that has nothing to do with the real world. How many people try to work 20 meters on a 2 foot Sony whip?

I failed to state the obvious. Given: Both stations are using antennas matched to the transmitter and of a length appropriate to the band being utilized. YaDa YaDa.

Back in the AM days, my wife heard me coming out of a skillet on the stove. I doubt she could have talked back to me no matter how high she turned up the heat. :>)

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11heq6fkbsp4q53@corp.supernews.com...
> The idea that if you can hear a station he can hear you is totally
> wrong, especially at HF. At HF, you can have a terribly inefficient
> antenna and hear people just fine. This is because the dominant noise is
> coming from outside the receiver and therefore both signal and noise are
> attenuated by the same amount by the loss. I can easily hear 20 meter DX
> on my little Sony SW radio with a 2 foot rod antenna. But there's no
> hope they'd hear me if I were transmitting with that antenna, even if
> I'm running an equal or much greater amount of power than they are.
>
> At VHF and above, where receiver noise dominates, a station you hear can
> hear you if you're running about the same amount of power and if your
> receivers have about the same noise figure. But this isn't at all true
> at HF and below.
>
> Roy Lewallen, W7EL

47. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 22:12:26 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <74veh11puhocm0msf7c3kgu0fu8ah0kfms@4ax.com>
Source record: 71142

On Thu, 01 Sep 2005 13:56:12 -0500, Cecil Moore <w5dxp@hotmail.com> wrote:

>Vinnie S. wrote:
>
>> <w5dxp@hotmail.com> wrote:
>>>A ground rod would result in rather high ground losses.
>>>With woods all around, why not put up a multi-band dipole?
>>
>> That was my first choice. I am not strong on antenna theory, so I and afraid to
>> build one. I was looking at a Alpha Delta DX-CC, but they have been on backorder
>> sonce March. I emailed them 3 weeks ago, and they said 7-10 days. I emailed them
>> again today, and they said 2 weeks. I liked that antenna because of the coax
>> feed. I was trying to sta away from the other dipole that use ladder line.
>
>A 130 ft. dipole fed with 450 ohm ladder-line through a good
>choke is hard to beat as an all-HF-band antenna and costs
>about $25.

I have to do a inverted V config. I would be unable to run it horizontal. Can I
build one using simply a coax feed?

Vinnie S.

48. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 22:21:53 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <G8LRe.6777$ZL4.3784@bignews4.bellsouth.net>
Source record: 71145
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

"Fred W4JLE" <fred@w4jle.com> wrote in message
news:a5b5e$431747b4$471c610a$32175@ALLTEL.NET...
>I am a DEC with ARES and have been told by a number of newer hams that ARES
> is obsolete in the 21st Century.
>
> It was pointed out to me that echo link, cell phones, wireless internet
> etc
> etc. obviated the need for a "bunch of old farts" that couldn't read the
> handwritting on the wall...
>
> We all watched in amazement as New Orleans was relagated to the Stone Age.
> All the wizz bang technology fell on it's hind parts. No cell phones, no
> internet, no echo link, no communications.
>
> No emergency system that relies on intact infrastructure can be relied
> upon
> period! Those who fail to heed this lesson, are doomed to repeat it.
>
> Now take it one step further and change the disaster to a nuclear
> explosion.
> The EMP wipes out all the rest of the neat toys necessary to communicate
> in
> the digital modes.
>
> The SOS and requests for help being transmitted on CW from an old tube
> type
> rig go unanswered, as no one can understand code. Mores the pity.

Ah Ha! But there will be *some* of us still around until of course all us
geezers kick the bucket. Then they' re on their own.

73

J

>
>

49. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 22:24:56 UTC
From: dplatt@radagast.org
Message-ID: <11hevto9fk3ocbe@corp.supernews.com>
Source record: 71146

In article <74veh11puhocm0msf7c3kgu0fu8ah0kfms@4ax.com>,
Vinnie S. <none@coldmail.com> wrote:

>>A 130 ft. dipole fed with 450 ohm ladder-line through a good
>>choke is hard to beat as an all-HF-band antenna and costs
>>about $25.

>I have to do a inverted V config. I would be unable to run it horizontal. Can I
>build one using simply a coax feed?

A single dipole, fed with coax, configured as an inverted V, will
serve well on its resonant frequency and is also usable on its odd
harmonics. For example, a dipole cut for 40 meters (nominally 66 feet
in length for a horizontal, and perhaps 60 feet in length as an
inverted V) can usually be used on 15 meters as well since that's
close to the third harmonic.

Such an antenna will not serve well as an "all-band" antenna. Its
feedpoint impedance will be too high, or too reactive, on non-resonant
bands (e.g. on 20, the above dipole will have a very high feedpoint
impedance). You may be able to tune it on non-resonant bands using a
wide-range external transmatch, but the losses in the coax and
transmatch due to the high VSWR will likely be prohibitive.

Several solutions to this:

- Feed the dipole with ladder line or open-wire line, use a good choke
or balun and a good tuner/transmatch, and if necessary tune the
length of the wire so that the impedance seen at the transmatch is
acceptable.

- Build a multi-wire "fan" dipole, with one set of wires cut for each
band of interest. These are somewhat easier to trim (less
interaction between the wires) if the wires are fanned apart at a
broad angle, but it's quite possible to get them to work with each
wire simply hanging 6" below the next-longest one using simple
insulators of some sort. I use a three-wire fan dipole of this
sort, cut for 40/20/10, fed with coax, and it works quite respectably.

- Use a trap dipole (feeding with coax should be fine).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

50. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 22:54:40 UTC
From: Phil Kane <Phil.Kane@nov.shmovz.ka.pop>
Message-ID: <cuvyxnansvbet.im5lz4b.pminews@newsgroups.comcast.net>
Source record: 71148
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

On Thu, 1 Sep 2005 18:21:53 -0400, Jerry wrote:

>Ah Ha! But there will be *some* of us still around until of course all us
>geezers kick the bucket. Then they' re on their own.

There's a bunch of teen-agers in our local radio club who think that
Morse is "Reel Kewl" because their non-ham friends can't read it.....

Old geezers (like us) never die - we just pass the key to the young
whipper-snappers.

--
73 de K2ASP - Phil Kane
(Orig, call sign 53 years ago)

51. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 22:57:01 UTC
From: Dan Richardson <>
Message-ID: <tl1fh1t17vo5ngvmhibej7pea1c3jd4vbu@4ax.com>
Source record: 71149

On Thu, 01 Sep 2005 22:24:56 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>A single dipole, fed with coax, configured as an inverted V, will
>serve well on its resonant frequency and is also usable on its odd
>harmonics. For example, a dipole cut for 40 meters (nominally 66 feet
>in length for a horizontal, and perhaps 60 feet in length as an
>inverted V) can usually be used on 15 meters as well since that's
>close to the third harmonic.

However, although it may "match" on 15-meters it will not work all
that great as the effective antenna height will be substantiality
lower. (Been there done that!).

Danny, K6MHE

52. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 23:10:40 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <8g2fh1d5vjvvqv7evm7m6du6rkm6pbjljt@4ax.com>
Source record: 71150

On Thu, 01 Sep 2005 22:24:56 -0000, dplatt@radagast.org (Dave Platt) wrote:

>In article <74veh11puhocm0msf7c3kgu0fu8ah0kfms@4ax.com>,

>- Build a multi-wire "fan" dipole, with one set of wires cut for each
> band of interest. These are somewhat easier to trim (less
> interaction between the wires) if the wires are fanned apart at a
> broad angle, but it's quite possible to get them to work with each
> wire simply hanging 6" below the next-longest one using simple
> insulators of some sort. I use a three-wire fan dipole of this
> sort, cut for 40/20/10, fed with coax, and it works quite respectably.

Can I use inulated 14 AWG wire and not use the fan method? Can I run them tied
together?

>- Use a trap dipole (feeding with coax should be fine).

Vinnie S.

53. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 23:50:58 UTC
From: Charlie <chas@aol.com>
Message-ID: <11hf4v9q97d9i20@news.supernews.com>
Source record: 71151

Yes the tower is fine...see this updated page

1. http://www.deepsouthnet.net/storm_damage.html

Now you bozos that berated it and disbelieved my account of hurricane Dennis might now see thinks more clearly with Katrina. We had hour upon hour of 60 mph + winds with gusts from 80-90mph. Believe it or fuck-off..I don't much give a shit
Just got our phone,power and water restored today...

I invite you dick heads to drop by my callbook address for a "cup of coffee"...oh yeah come on over....

--

Charlie

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message news:QShRe.7184$ct5.91@fed1read04...
> --
> X-No-Archive: Yes
>
> I've noticed that you've not posted here bragging
> about that P.O.S. tower of yours still standing.
>
> I wonder if your silence means Katrina got you?
>
> Enquiring minds want to know
>
> --
> 73 de Ken KGWX - Flying Pigs #-1055
> Elecraft K2 #4913
>

54. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-01 23:57:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <df84hh$c4k$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71152

"Walter Maxwell" <walt@w2du.com> wrote in message
news:6f5gh1dhslo8qb8p4dm9to8mfjkmt691ig@4ax.com...
> On Thu, 1 Sep 2005 07:35:35 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >
> >"Walter Maxwell" wrote
> >> Will you please describe the details of your experiment where you
> >> claim 90% of the power is radiated from the feedline? How did you
> >make
> >> this measurement?
> >>
> >==================================
> >
> >Walt,
> >
> >If you erect a 10 meter 1/2-wave dipole and center-feed it with a
50
> >feet length of coax, and then transmit on 1.9 MHz, 99.9 percent of
> >available power will be radiated from the feedline and only 0.1
> >percent from the antenna itself.
> >
> >SWR on the line will be about 1400 and the amount of power
available
> >will not be very great.
> >----
> >Reg.
> >
> Sorry to disagree, Reg, But if a balun at the feedline-antenna
> junction is a perfect balun at 1.9 MHz, NO power will be radiated
from
> the feedline with any amount of SWR, even 1400. It is true that only
> 0.1% of the power will be radiated, but the 99.9% will be reflected
> back to the input of the line, not radiated,, making a 50-ohm
> transmitter see a 1400:1 mismatch. In the steady state the
transmitter
> will only deliver 0.1% of its available power into the line due to
the
> mismatch.
>
> The 1400 SWR inside the coax will not cause it to radiate, unless
the
> outer conductor is full of holes.
>

==========
Walt,

Back along the thread you asked for details of the experiment which demonstrated that a feedline could radiate as much as 90 percent (of the available power). But you received no reply.

So I provided an example in which nearly all the power is radiated by the feedline simply because the short antenna is unable to accept very much and is inefficient. The power available at the antenna input HAS to go somewhere if it cannot be accepted by the antenna.

Walt, my statement is correct. There is NO choke balun involved. The unbalanced coax goes straight into the balanced antenna which inevitable injects power into the outside of the coax. The choke is omitted just to acheive that purpose.

I made the statement because you seemed to doubt it was possible for 90 percent of the available power ever to be radiated from an unbalanced feedline. I may possibly have mis-interpretted you.

Admitted, there may not be very much power available at the antenna due to high SWR and loss within the coax. But nevertheless most of the power will be radiated by the outside of the feedline. The feedline makes an excellent, efficient antenna wire compared with the dipole.

An approximate analysis can possibly be done by using Eznec and placing the transmitter directly at the center of the dipole.

The outer conductor of the coax can be represented by a thick wire down to ground, the transmission loss inside the coax being ignored without having the slightest effect on the experiment.

Incidentally, the length of the feedline in wavelengths and the resistance of the bottom end ground connection will have a considerable effect on results.

I mention Eznec because of the number of people who swear by it.

For Roy's benefit, the experiment will not tell him how many watts are radiated from the feedline because it is impossible to separate the three radiation resistances involved and there will be only one very peculiar radiation pattern from their combination.

I entered this extremely long-standing discussion only to say that, in general, the amount of "Power Radiated from a Feedline" is not worth the effort which has been expended in waffling about it.

I use the words "Power Radiated from a Feedline" only because, to make myself understood, I am obliged to use the same confusing language as used by old-wives for the last 50 years. I try to be helpful.

Reg, G4FGQ

55. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 00:07:52 UTC
From: dplatt@radagast.org
Message-ID: <11hf5uo5tp2a704@corp.supernews.com>
Source record: 71153

In article <8g2fh1d5vjvvqv7evm7m6du6rkm6pbjljt@4ax.com>,
Vinnie S. <none@coldmail.com> wrote:

>Can I use inulated 14 AWG wire and not use the fan method? Can I run them tied
>together?

The closer the wires are together, the greater the amount of
electrical coupling between them. As the amount of coupling
increases, the wires' ability to behave independently decreases... one
effect is that the useful SWR bandwidth of the wires becomes narrower.
The presence or absence of insulation won't have too much effect on
this change... some, but not a lot.

Eventually, if the wires are close enough together, they'll tend to
behave pretty much like one wire (the longest one) which is "fatter"
near the feedpoint, and you'll lose the ability to tune the
higher-frequency bands properly.

A separation of 4-5" inches seems to work pretty well. There are
plans in one of the ARRL handbooks which show a "fan" dipole made from
300-ohm twinlead, with one wire cut off short (and a second 300-ohm
section with two even shorter wires hung an inch or so below). I'd
expect this to have a narrower useful bandwidth on the shorter-wire
bands than one with a 4" separation.

I've even heard of people making these sort of fan dipoles out of
computer-type ribbon cable, in which the wires are only about a tenth
of an inch apart! I have no personal experience with this particular
version and don't how well this actually works in practice, but I have
a feeling it might be difficult to get to tune properly.

I suppose you could try making one with insulated wire, with the wires
tied together every few feet, and the shorter (lower) wires being tied
in loosely so that they sag downwards a few inches in between the
ties. This might separate 'em enough to allow for independent tuning.

If you can use insulators, do so, is my advice. You can make
insulators very cheaply from short lengths of 1/2" PVC irrigation
tubing.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

56. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 00:20:36 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <7m6fh1lhkgk48cpsdq1o76efaraqhh9g3f@4ax.com>
Source record: 71154

On Fri, 02 Sep 2005 00:07:52 -0000, dplatt@radagast.org (Dave Platt) wrote:

>If you can use insulators, do so, is my advice. You can make
>insulators very cheaply from short lengths of 1/2" PVC irrigation
>tubing.

Great idea !

Vinnie S.

57. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 00:33:53 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11hf7gj9b6ek9ce@corp.supernews.com>
Source record: 71155

Charlie wrote:
> Yes the tower is fine...see this updated page
>
> 1. http://www.deepsouthnet.net/storm_damage.html
>
> Now you bozos that berated it and disbelieved my account of hurricane Dennis
> might now see thinks more clearly with Katrina. We had hour upon hour of 60
> mph + winds with gusts from 80-90mph. Believe it or fuck-off..I don't much
> give a shit
> Just got our phone,power and water restored today...
>
> I invite you dick heads to drop by my callbook address for a "cup of
> coffee"...oh yeah come on over....
>
Charlie;

Congratulations on surviving Katrina. Glad to see your tower is still up
and functioning. New pictures can't be beat.

Figured you were out of power and phone, didn't know about the water.
(Are you on a well?).

Frustration is no excuse for the language though.

Dave WD9BDZ

58. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 01:31:24 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11hfaou1v9nrp9a@corp.supernews.com>
Source record: 71157

A similar set of examples of apparent one way HF communication:
Michigan to Bangladesh in the rainy season. [much more QRN at one end than the other]
Michigan to Antarctica in the (N.A.) Summer [heavy QRN on one end, none on the other end]

... and then there are the paths that have to go through the magnetic pole ...

These examples assume reasonable equipment in a rural setting.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11heq6fkbsp4q53@corp.supernews.com...

>
> The idea that if you can hear a station he can hear you is totally
> wrong, especially at HF. At HF, you can have a terribly inefficient
> antenna and hear people just fine. This is because the dominant noise is
> coming from outside the receiver and therefore both signal and noise are
> attenuated by the same amount by the loss. I can easily hear 20 meter DX
> on my little Sony SW radio with a 2 foot rod antenna. But there's no
> hope they'd hear me if I were transmitting with that antenna, even if
> I'm running an equal or much greater amount of power than they are.
>
> At VHF and above, where receiver noise dominates, a station you hear can
> hear you if you're running about the same amount of power and if your
> receivers have about the same noise figure. But this isn't at all true
> at HF and below.
>
> Roy Lewallen, W7EL

59. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 02:50:39 UTC
From: Charlie <chas@aol.com>
Message-ID: <11hffgatnkomr37@news.supernews.com>
Source record: 71158

Well I do apologize for the language. We lost all power in the entire county ..the water is city supplied but pumped with electric pumps.

Yeah I kinda let loose a bit..it has been a stressful 72 hours. 73

--

Charlie

"David G. Nagel" <nagel@core.com> wrote in message news:11hf7gj9b6ek9ce@corp.supernews.com...
> Charlie wrote:
>> Yes the tower is fine...see this updated page
>>
>> 1. http://www.deepsouthnet.net/storm_damage.html
>>
>> Now you bozos that berated it and disbelieved my account of hurricane
>> Dennis might now see thinks more clearly with Katrina. We had hour upon
>> hour of 60 mph + winds with gusts from 80-90mph. Believe it or
>> fuck-off..I don't much give a shit
>> Just got our phone,power and water restored today...
>>
>> I invite you dick heads to drop by my callbook address for a "cup of
>> coffee"...oh yeah come on over....
>>
> Charlie;
>
> Congratulations on surviving Katrina. Glad to see your tower is still up
> and functioning. New pictures can't be beat.
>
> Figured you were out of power and phone, didn't know about the water. (Are
> you on a well?).
>
> Frustration is no excuse for the language though.
>
> Dave WD9BDZ

60. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 04:05:57 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <3bQRe.7609$%j7.6891@bignews3.bellsouth.net>
Source record: 71159

<kashe@sonic.net> wrote in message
news:a4bdh1d8jf7uithnugf9o7lnej7c8ollg9@4ax.com...
> On Tue, 30 Aug 2005 17:19:51 -0400, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
>
> >Like someone else said - instead of a trencher, why not try a edger.
> >You can buy an electric edger and a long extension cord cheap enough -
> >probably cheaper than renting a trencher.
> >I heard one person say he just purchared a new chain for his chainsaw -
and
> >used the old chain to make the trenches for radials.
>
> Great way to destroy the bar slot before installing the new
> chain.
>

I never tried it myself, but you're right - might need to buy a bar too.

61. Re: Mulit-band Hustler 6-BTV question/help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 04:07:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125634184_393@spool6-east.superfeed.net>
Source record: 71160

Vinnie S. wrote:
> I have to do a inverted V config. I would be unable to run it horizontal. Can I
> build one using simply a coax feed?

If you go with coax, you probably should use multiple dipoles (fan)
or a trapped dipole to obtain a low feedpoint impedance on your
bands of choice.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

62. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 04:12:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125634530_399@spool6-east.superfeed.net>
Source record: 71161

Reg Edwards wrote:
> So I provided an example in which nearly all the power is radiated by
> the feedline simply because the short antenna is unable to accept very
> much and is inefficient.

But how much of that power is heat and how much is RF?
With an SWR of 1000:1, the I^2*R losses are bound to
be pretty high.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

63. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 05:04:10 UTC
From: Polymath <aiyr.r.bean@lycos.co.uk>
Message-ID: <1125637450.429645.31700@g44g2000cwa.googlegroups.com>
Source record: 71162
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

What a lot of fuss about _NOTHING_ from you Yanks!

What has happened down south is exactly what you have
been meting out to the citizenry of Yugoslavia, of
Afghanistan and latterly of Iraq - the destruction
of the civilain infrastructure.

It's normal Yankland experience!

Serves you right for your illegal invasion of Iraq!

Fred W4JLE wrote:
> We all watched in amazement as New Orleans was relagated to the Stone Age.
> All the wizz bang technology fell on it's hind parts. No cell phones, no
> internet, no echo link, no communications.

64. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 09:14:18 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <6f5gh1dhslo8qb8p4dm9to8mfjkmt691ig@4ax.com>
Source record: 71140

On Thu, 1 Sep 2005 07:35:35 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Walter Maxwell" wrote
>> Will you please describe the details of your experiment where you
>> claim 90% of the power is radiated from the feedline? How did you
>make
>> this measurement?
>>
>==========
>
>Walt,
>
>If you erect a 10 meter 1/2-wave dipole and center-feed it with a 50
>feet length of coax, and then transmit on 1.9 MHz, 99.9 percent of
>available power will be radiated from the feedline and only 0.1
>percent from the antenna itself.
>
>SWR on the line will be about 1400 and the amount of power available
>will not be very great.
>----
>Reg.
>
Sorry to disagree, Reg, But if a balun at the feedline-antenna
junction is a perfect balun at 1.9 MHz, NO power will be radiated from
the feedline with any amount of SWR, even 1400. It is true that only
0.1% of the power will be radiated, but the 99.9% will be reflected
back to the input of the line, not radiated,, making a 50-ohm
transmitter see a 1400:1 mismatch. In the steady state the transmitter
will only deliver 0.1% of its available power into the line due to the
mismatch.

The 1400 SWR inside the coax will not cause it to radiate, unless the
outer conductor is full of holes.

Walt

65. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 10:10:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <df98fj$57v$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71163

> But how much of that power is heat and how much is RF?
> With an SWR of 1000:1, the I^2*R losses are bound to
> be pretty high.
==========

Your question is not relevant. We are concerned only with the possible high ratio of feedline radiation to radiation from the antenna.

If you are worried about transmission loss in the coax then that can be reduced by transmitting at a higher frequency than 1.9 MHz where the 10m dipole provides a better terminating impedance and SWR will be lower.

With an appropriate line-length in wavelengths the coax can still be forced into radiating better than the short 10m dipole.

But the conditions under which this occurs are NEVER those under which the system would normally be operated.

Under normal conditions, eg., transmitting on 29 MHz, radiation from the feedline is low enough never to cause interference to the neighbor's television. If such an unwelcome event should occur then it will be due to legitimate high-power radiation from the dipole and your conscience will be clear.

Now Cecil, you can stop trying to pull my leg. ;o)

Reg.

66. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 11:11:52 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <y6idnUyJwKHoroXeRVn-oQ@bright.net>
Source record: 71164
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Hmmm, I could have sworn I saw pictures of British troops in Iraq as
well. Oh well, maybe they were doctored photos...

Polymath wrote:

> What a lot of fuss about _NOTHING_ from you Yanks!

>
> Serves you right for your illegal invasion of Iraq!
>

67. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 12:10:27 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <73ggh1lnblt7m40a8lif0eot6g1059hg5v@4ax.com>
Source record: 71165
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

On 1 Sep 2005 22:04:10 -0700, "Polymath" <aiyr.r.bean@lycos.co.uk>
wrote:

>What a lot of fuss about _NOTHING_ from you Yanks!
>
>What has happened down south is exactly what you have
>been meting out to the citizenry of Yugoslavia, of
>Afghanistan and latterly of Iraq - the destruction
>of the civilain infrastructure.
>
>It's normal Yankland experience!
>
>Serves you right for your illegal invasion of Iraq!
>
>Fred W4JLE wrote:
>> We all watched in amazement as New Orleans was relagated to the Stone Age.
>> All the wizz bang technology fell on it's hind parts. No cell phones, no
>> internet, no echo link, no communications.

Thanks, you worthless piece of crap. We note your caring attitude for
those in distress. Deep down, all socialists are violent, hate-filled
potential dictators. Oh, and Jerry Hollombe would be surprised at
your screen name. Polymath, indeed. Do you call yourself that
because you can actually count past three?

R

68. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 12:21:09 UTC
From: Polymath <aiyr.r.bean@lycos.co.uk>
Message-ID: <1125663669.776144.205160@o13g2000cwo.googlegroups.com>
Source record: 71166
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Yup - it is/was an Axis Of Evil combining together the hypocrisy
of the religious loonies, Bush, Blair and Windsor.

Insofar as they contrived to send many young men to their
deaths, they're not a lot different to the Muslim loonies
directing all these suicidal youngsters.

Scott wrote:
> Hmmm, I could have sworn I saw pictures of British troops in Iraq as
> well. Oh well, maybe they were doctored photos...
> Polymath wrote:
> > What a lot of fuss about _NOTHING_ from you Yanks!
> > Serves you right for your illegal invasion of Iraq!

69. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 12:22:22 UTC
From: Polymath <aiyr.r.bean@lycos.co.uk>
Message-ID: <1125663742.594980.56970@g49g2000cwa.googlegroups.com>
Source record: 71167
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Stupid boy.

Russ wrote:
> Thanks, you worthless piece of crap. We note your caring attitude for
> those in distress. Deep down, all socialists are violent, hate-filled
> potential dictators. Oh, and Jerry Hollombe would be surprised at
> your screen name. Polymath, indeed. Do you call yourself that
> because you can actually count past three?

70. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 13:02:12 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <3pigh1d51u5l3hr8opform9dl52hp29epr@4ax.com>
Source record: 71156

```
On Thu, 1 Sep 2005 23:57:37 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Walter Maxwell" <walt@w2du.com> wrote in message
>news:6f5gh1dhslo8qb8p4dm9to8mfjkmt691ig@4ax.com...
>> On Thu, 1 Sep 2005 07:35:35 +0000 (UTC), "Reg Edwards"
>> <g4fgq.regp@ZZZbtinternet.com> wrote:
>>
>> >
>> >"Walter Maxwell" wrote
>> >> Will you please describe the details of your experiment where you
>> >> claim 90% of the power is radiated from the feedline? How did you
>> >make
>> >> this measurement?
>> >>
>> >==================================
>> >
>> >Walt,
>> >
>> >If you erect a 10 meter 1/2-wave dipole and center-feed it with a
>50
>> >feet length of coax, and then transmit on 1.9 MHz, 99.9 percent of
>> >available power will be radiated from the feedline and only 0.1
>> >percent from the antenna itself.
>> >
>> >SWR on the line will be about 1400 and the amount of power
>available
>> >will not be very great.
>> >----
>> >Reg.
>> >
>> Sorry to disagree, Reg, But if a balun at the feedline-antenna
>> junction is a perfect balun at 1.9 MHz, NO power will be radiated
>from
>> the feedline with any amount of SWR, even 1400. It is true that only
>> 0.1% of the power will be radiated, but the 99.9% will be reflected
>> back to the input of the line, not radiated,, making a 50-ohm
>> transmitter see a 1400:1 mismatch. In the steady state the
>transmitter
>> will only deliver 0.1% of its available power into the line due to
>the
>> mismatch.
>>
```

>> The 1400 SWR inside the coax will not cause it to radiate, unless
>the
>> outer conductor is full of holes.
>>
>============================
>Walt,
>
>Back along the thread you asked for details of the experiment which
>demonstrated that a feedline could radiate as much as 90 percent (of
>the available power). But you received no reply.
>
>So I provided an example in which nearly all the power is radiated by
>the feedline simply because the short antenna is unable to accept very
>much and is inefficient. The power available at the antenna input HAS
>to go somewhere if it cannot be accepted by the antenna.
>
>Walt, my statement is correct. There is NO choke balun involved. The
>unbalanced coax goes straight into the balanced antenna which
>inevitable injects power into the outside of the coax. The choke is
>omitted just to acheive that purpose.

snip

>I use the words "Power Radiated from a Feedline" only because, to make
>myself understood, I am obliged to use the same confusing language as
>used by old-wives for the last 50 years. I try to be helpful.
>----
>Reg, G4FGQ
>

Thank you for the detailed explanation, Reg, I'm sorry I began
transmission while off frequency. I jumped on too soon without
considering you were talking specifically a condition without a balun.
You are correct about the feedline radiation without the balun.
However, with the 1400 SWR in the case you described, because even
though the SWR at the input of the feedline will be substantially less
that at the load, the mismatch seen by the source will allow only an
insignificant amount of the available power to be delivered to the
feedline.

Walt

71. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 13:26:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125667754_1809@spool6-east.superfeed.net>
Source record: 71168

Reg Edwards wrote:
> Now Cecil, you can stop trying to pull my leg. ;o)

I'm just wondering how 99.9% of the power can be radiated
from the feedline when 80% of the power turns to heat in
the feedline. Is that what is known as gain? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

72. EMRP effective monopole radiated power

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 13:44:29 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1125668669.498531.146570@g44g2000cwa.googlegroups.com>
Source record: 71169

Hello again everyone,

I was reading through a transmitter datasheet and it stated that it is capable of outputting 1-50W. However, I got an email from the company stating that it is only designed to work at 1W EMRP. Upon further reading, I discovered that the effective monopole radiated power is the transmitter output power multiplied by the antenna gain.

I'm a bit confused because if EMRP depends on antenna gain, then can't the antenna be designed to have a higher gain and thus have a higher EMRP? How can a transmitter be designed only for 1W EMRP? Does changing the antenna design likely affect the transmitter performance?

I figured since the TX has a standard 50ohm output impedance, then as long as I match the antenna I should not worry about VSWR going over the max rating for the TX, no?

Thanks!

73. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 14:03:00 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <e3b6f$43185bac$471c610a$31817@ALLTEL.NET>
Source record: 71170
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

With all do respect, may I entice you to have an auto-erotic experience.

If we had not helped you during WW2, I would not be reading your trash as I do not understand German.

Regardless of your politics, to show such utter disregard for the suffering of the people is indicative of your anti US stance as opposed to your concern for humanity of any stripe.

But were you not a rabid mouth breather, you would know that.

"Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message news:1125637450.429645.31700@g44g2000cwa.googlegroups.com...
> What a lot of fuss about _NOTHING_ from you Yanks!
>
> What has happened down south is exactly what you have
> been meting out to the citizenry of Yugoslavia, of
> Afghanistan and latterly of Iraq - the destruction
> of the civilain infrastructure.
>
> It's normal Yankland experience!
>
> Serves you right for your illegal invasion of Iraq!
>
> Fred W4JLE wrote:
> > We all watched in amazement as New Orleans was relagated to the Stone Age.
> > All the wizz bang technology fell on it's hind parts. No cell phones, no
> > internet, no echo link, no communications.
>

74. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 14:12:36 UTC
From: Polymath <aiyr.r.bean@lycos.co.uk>
Message-ID: <1125670356.254742.160010@g43g2000cwa.googlegroups.com>
Source record: 71171
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Your challenge is rather silly and infantile.

Perhaps it is indicative of the malaise that
prepossesses Yankland when Yankland visits the
same style of destruction on the innocent
citizenry of the World?

You did not help me during WWII.

I am not showing "utter disregard for the suffering
of the people". Far from it, but your self-obsession
and the self-obsession of Yankland might lead you
to think so.

Fred W4JLE wrote:
> With all do respect, may I entice you to have an auto-erotic experience.
> If we had not helped you during WW2, I would not be reading your trash as I
> do not understand German.
> Regardless of your politics, to show such utter disregard for the suffering
> of the people is indicative of your anti US stance as opposed to your
> concern for humanity of any stripe.
> But were you not a rabid mouth breather, you would know that.
>
> "Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message
> news:1125637450.429645.31700@g44g2000cwa.googlegroups.com...
> > What a lot of fuss about _NOTHING_ from you Yanks!
> > What has happened down south is exactly what you have
> > been meting out to the citizenry of Yugoslavia, of
> > Afghanistan and latterly of Iraq - the destruction
> > of the civilain infrastructure.
> > It's normal Yankland experience!
> > Serves you right for your illegal invasion of Iraq!
> > Fred W4JLE wrote:
> > > We all watched in amazement as New Orleans was relagated to the Stone
> Age.
> > > All the wizz bang technology fell on it's hind parts. No cell phones, no
> > > internet, no echo link, no communications.

75. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 14:19:25 UTC
From: k <spam@uce.gov>
Message-ID: <NbZRe.348$Gh.110@tornado.socal.rr.com>
Source record: 71172
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

If you or your ancestors were 'anywhere' in Europe in WWII, we sure as
hell did help you, dipshit!

"Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message
news:1125670356.254742.160010@g43g2000cwa.googlegroups.com...
: Your challenge is rather silly and infantile.
:
: Perhaps it is indicative of the malaise that
: prepossesses Yankland when Yankland visits the
: same style of destruction on the innocent
: citizenry of the World?
:
: You did not help me during WWII.
:
: I am not showing "utter disregard for the suffering
: of the people". Far from it, but your self-obsession
: and the self-obsession of Yankland might lead you
: to think so.
:
: Fred W4JLE wrote:
: > With all do respect, may I entice you to have an auto-erotic
experience.
: > If we had not helped you during WW2, I would not be reading your
trash as I
: > do not understand German.
: > Regardless of your politics, to show such utter disregard for the
suffering
: > of the people is indicative of your anti US stance as opposed to
your
: > concern for humanity of any stripe.
: > But were you not a rabid mouth breather, you would know that.
: >
: > "Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message
: > news:1125637450.429645.31700@g44g2000cwa.googlegroups.com...
: > > What a lot of fuss about _NOTHING_ from you Yanks!
: > > What has happened down south is exactly what you have
: > > been meting out to the citizenry of Yugoslavia, of
: > > Afghanistan and latterly of Iraq - the destruction
: > > of the civilain infrastructure.
: > > It's normal Yankland experience!
: > > Serves you right for your illegal invasion of Iraq!
: > > Fred W4JLE wrote:
: > > > We all watched in amazement as New Orleans was relagated to the

Stone
: > Age.
: > > > All the wizz bang technology fell on it's hind parts. No cell
phones, no
: > > > internet, no echo link, no communications.
:

76. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 14:30:24 UTC
From: Mike Lee <mldl21624@blueyonder.co.uk>
Message-ID: <4mZRe.1741$hv5.251@fe2.news.blueyonder.co.uk>
Source record: 71173
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

k wrote:
> If you or your ancestors were 'anywhere' in Europe in WWII, we sure as
> hell did help you, dipshit!
>
> "Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message
> news:1125670356.254742.160010@g43g2000cwa.googlegroups.com...
> : Your challenge is rather silly and infantile.
> :
> : Perhaps it is indicative of the malaise that
> : prepossesses Yankland when Yankland visits the
> : same style of destruction on the innocent
> : citizenry of the World?
> :
> : You did not help me during WWII.
> :
> : I am not showing "utter disregard for the suffering
> : of the people". Far from it, but your self-obsession
> : and the self-obsession of Yankland might lead you
> : to think so.
> :
> : Fred W4JLE wrote:
> : > With all do respect, may I entice you to have an auto-erotic
> experience.
> : > If we had not helped you during WW2, I would not be reading your
> trash as I
> : > do not understand German.
> : > Regardless of your politics, to show such utter disregard for the
> suffering
> : > of the people is indicative of your anti US stance as opposed to
> your
> : > concern for humanity of any stripe.
> : > But were you not a rabid mouth breather, you would know that.
> : >
> : > "Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message
> : > news:1125637450.429645.31700@g44g2000cwa.googlegroups.com...
> : > > What a lot of fuss about _NOTHING_ from you Yanks!
> : > > What has happened down south is exactly what you have
> : > > been meting out to the citizenry of Yugoslavia, of
> : > > Afghanistan and latterly of Iraq - the destruction
> : > > of the civilain infrastructure.
> : > > It's normal Yankland experience!
> : > > Serves you right for your illegal invasion of Iraq!
> : > > Fred W4JLE wrote:

> : > > > We all watched in amazement as New Orleans was relagated to the
> Stone
> : > Age.
> : > > > All the wizz bang technology fell on it's hind parts. No cell
> phones, no
> : > > > internet, no echo link, no communications.
> :
>
>
Lett`s all get along shall we, there is enough shit and crap going on in
this world.
--
http://uk.geocities.com/swift240/mikes_page_1.html

77. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 14:40:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125672250_1875@spool6-east.superfeed.net>
Source record: 71174

Reg Edwards wrote:
> Now Cecil, you can stop trying to pull my leg. ;o)

I'm actually trying to make a technical point, Reg.
Walt may be trying to make that same technical point.
The SWR is based on differential energy which doesn't
radiate from the feedline. It just seems to me that
you are trying to have your reflected power and radiate
it too. That doesn't work for radiated power any better
than it works for cake. If the SWR is 1400:1 then the
reflected power is almost equal to the forward power both
of which are associated with *differential* currents which
don't radiate.

If the SWR on the feedline is 1400:1, almost no power
is being radiated! The forward power is 100 watts
then the reflected power is 99.7 watts. Both of these
powers are based on *differential* currents and therefore
don't radiate from the feedline. There's only 0.3 watts
available to radiate.

If 99.9% of the power is being radiated by the outside
braid of the coax, then the reflected power cannot be
more than 0.1% of the power and as a result of that
fact, the SWR on the feedline must necessarily be
very low, i.e. close to 1:1. Seems to me you need to
resolve that contradiction.

You cannot radiate 99.9% your reflected power and still
have it available to the SWR measuring equipment. If the
reflected power is available to the SWR measuring equipment,
it is composed of *differential* currents and is, by definition,
not radiating. If it is radiating, then it is not available to
the SWR measuring equipment and the SWR is, therefore, low. You
simply cannot have a sky high SWR on the feedline with the
feedline radiating 99% of the power. The SWR meter cannot tell
if the antenna or coax braid is doing the radiating and will
report a very low SWR.
--
73, Cecil, http://www.qsl.net/w5dxp

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78. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 14:50:18 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11hgpl54n5s3i32@corp.supernews.com>
Source record: 71175

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:3bQRe.7609$%j7.6891@bignews3.bellsouth.net...
>
> <kashe@sonic.net> wrote in message
> news:a4bdh1d8jf7uithnugf9o7lnej7c8ollg9@4ax.com...
>> On Tue, 30 Aug 2005 17:19:51 -0400, "Hal Rosser"
>> <hmrosser@bellsouth.net> wrote:
>>
>> >Like someone else said - instead of a trencher, why not try a edger.
>> >You can buy an electric edger and a long extension cord cheap enough -
>> >probably cheaper than renting a trencher.
>> >I heard one person say he just purchared a new chain for his chainsaw -
> and
>> >used the old chain to make the trenches for radials.
>>
>> Great way to destroy the bar slot before installing the new
>> chain.
>>
>
> I never tried it myself, but you're right - might need to buy a bar too.
>

I had occasion to replace a 150 foot run of wire to a well a year or so
back. After discovering how shallow the original wiring had been planted, I
was able to duplicate the
run burial by using a sharpshooter spade, it took less than two hours. I
just pushed the spade into the ground and levered open a shallow slot. That
worktime included protecting the new wiring with PVC pipe where it ran
across a pair of gravel trailer parking pads. I realize a really effective
radial system would probably involve more wire than that, but you'd probably
want to do it in short work sessions anyway.

Harold
KD5SAK

79. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 15:11:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125674107_1921@spool6-east.superfeed.net>
Source record: 71076
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

k wrote:
> If you or your ancestors were 'anywhere' in Europe in WWII, we sure as
> hell did help you, dipshit!

Eastern Europeans might disagree. US intervention in WWII
enabled the creation of the Soviet Empire along with its
Iron Curtain.
--
73, Cecil, http://www.qsl.net/w5dxp

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80. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 15:28:11 UTC
From: Polymath <aiyr.r.bean@lycos.co.uk>
Message-ID: <1125674891.930344.53600@z14g2000cwz.googlegroups.com>
Source record: 71077
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

```
Your challenge is rather silly and infantile.

You did not help me during WWII.

k wrote:
> If you or your ancestors were 'anywhere' in Europe in WWII, we sure as
> hell did help you, dipshit!
>
> "Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message
> news:1125670356.254742.160010@g43g2000cwa.googlegroups.com...
> : Your challenge is rather silly and infantile.
> :
> : Perhaps it is indicative of the malaise that
> : prepossesses Yankland when Yankland visits the
> : same style of destruction on the innocent
> : citizenry of the World?
> :
> : You did not help me during WWII.
> :
> : I am not showing "utter disregard for the suffering
> : of the people". Far from it, but your self-obsession
> : and the self-obsession of Yankland might lead you
> : to think so.
> :
> : Fred W4JLE wrote:
> : > With all do respect, may I entice you to have an auto-erotic
> experience.
> : > If we had not helped you during WW2, I would not be reading your
> trash as I
> : > do not understand German.
> : > Regardless of your politics, to show such utter disregard for the
> suffering
> : > of the people is indicative of your anti US stance as opposed to
> your
> : > concern for humanity of any stripe.
> : > But were you not a rabid mouth breather, you would know that.
> : >
> : > "Polymath" <aiyr.r.bean@lycos.co.uk> wrote in message
> : > news:1125637450.429645.31700@g44g2000cwa.googlegroups.com...
> : > > What a lot of fuss about _NOTHING_ from you Yanks!
> : > > What has happened down south is exactly what you have
> : > > been meting out to the citizenry of Yugoslavia, of
> : > > Afghanistan and latterly of Iraq - the destruction
> : > > of the civilain infrastructure.
```

> : > > It's normal Yankland experience!
> : > > Serves you right for your illegal invasion of Iraq!
> : > > Fred W4JLE wrote:
> : > > > We all watched in amazement as New Orleans was relagated to the
> Stone
> : > Age.
> : > > > All the wizz bang technology fell on it's hind parts. No cell
> phones, no
> : > > > internet, no echo link, no communications.
> :

81. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 15:30:28 UTC
From: Polymath <aiyr.r.bean@lycos.co.uk>
Message-ID: <1125675028.665701.44960@f14g2000cwb.googlegroups.com>
Source record: 71078
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

A good point.

WWII was started by Britland with the express purpose
of dispersing the invaders from Poland, and yet the
war ended with invaders in Poland.

Therefore, Britland (and Yankland for all its pompous
posturing) _LOST_ WWII.

Cecil Moore wrote:
> k wrote:
> > If you or your ancestors were 'anywhere' in Europe in WWII, we sure as
> > hell did help you, dipshit!
>
> Eastern Europeans might disagree. US intervention in WWII
> enabled the creation of the Soviet Empire along with its
> Iron Curtain.
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
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82. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 16:58:27 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <TtydndNRkadrGYXeRVn-tQ@comcast.com>
Source record: 71079

Fred W4JLE wrote:
> Come on Roy, your picking an example that has nothing to do with the real
> world. How many people try to work 20 meters on a 2 foot Sony whip?
>
Possibly the same people who want to work 80 meters on an 8 foot whip !!!!

SNIPPED

83. Re: EMRP effective monopole radiated power

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 17:22:50 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43188ad1_4@newsfeed.slurp.net>
Source record: 71080

"CD" wrote
>... I figured since the TX has a standard 50ohm output impedance,
>then as long as I match the antenna I should not worry about
>VSWR going over the max rating for the TX, no?

Normally a transmitter is rated to provide some value of r-f power output into a load having no more than 'X:1' SWR with respect to the load impedance the tx is designed for. Such a load can be provided by a large number of antennas of different directional gains, yielding different ERPs even though the tx output power into each antenna type is the same.

One possible concern of the tx manufacturer for ERP might be related to how well his product is shielded. But such a concern probably indicates a rather inferior design.

RF

84. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 17:32:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125682557_2323@spool6-east.superfeed.net>
Source record: 71081

dansawyeror wrote:
> If it is true it proves that a driving a "bad" load can cause the coax
> feedline to radiate a significant portion of the feed energy. At this
> point I am not sure what word to use other then 'bad', but I due intend
> to perform experiments to measure and verify what is happening and the
> model.
>
>> dansawyeror wrote:
>>> Below is a link to a site that claims to model coax radiation from a
>>> dipole.
>>>
>>> http://www.smeter.net/feeding/feedpowr.php

We are in a position now to say what is wrong with that program.
Essentially, it violates the conservation of energy principle.

Energy cannot exist as both reflected power and radiated power
at the same time.

If the SWR is 1400:1, the feedline cannot be radiating much
because the reflected power is 99.7% of the forward power
and both are based on differential currents which don't
radiate. That leaves only 0.3% of the power available for
radiating by the feedline.

If 99.9% of the power is radiated by the coax braid, then the
feedline SWR must be very close to 1.6:1 because the ratio of
reflected power to forward power can be no more than 0.1/100.

As with cake, you cannot have your reflected power and radiate
it too. Reflected power plus radiated power cannot add up to
more than the forward power. In fact, Pfor = Pref + Prad
If 50% of the power is radiated by the antenna plus feedline,
then 50% of the power is reflected and the SWR is 5.83:1.
--
73, Cecil, http://www.qsl.net/w5dxp

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85. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 17:34:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125682677_2325@spool6-east.superfeed.net>
Source record: 71082

Cecil Moore wrote:
> If 99.9% of the power is radiated by the coax braid, then the
> feedline SWR must be very close to 1.6:1 because the ratio of

Sorry, that should be 1.06:1 instead of 1.6:1.

> reflected power to forward power can be no more than 0.1/100.
--
73, Cecil, http://www.qsl.net/w5dxp

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86. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 17:43:25 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <3e3hh1l7nbrhc7frnpo37c8871vsnf8nl9@4ax.com>
Source record: 71083

On 2 Sep 2005 08:30:28 -0700, "Polymath" <aiyr.r.bean@lycos.co.uk>
wrote:

>WWII was started by Britland with the express purpose
>of dispersing the invaders from Poland, and yet the
>war ended with invaders in Poland.
>
>Therefore, Britland (and Yankland for all its pompous
>posturing) _LOST_ WWII.

You're saying the Brits started WWII? Are you trying to rewrite
history?

What do you believe Hitler's German troops were doing in the
Sudetenland in 1938, rounding up rebels?

What were Hitler's V-2 rockets doing over London, cleaning out their
chimneys?

Your railing against the US is hurtful, and shows how demented you
are.

87. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 17:45:30 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4318901c_2@newsfeed.slurp.net>
Source record: 71084

"Cecil Moore" wrote>
> ... If 99.9% of the power is being radiated by the outside
> braid of the coax, then the reflected power cannot be
> more than 0.1% of the power and as a result of that
> fact, the SWR on the feedline must necessarily be
> very low, i.e. close to 1:1 ...

... and therefore incapable of melting down the inner conductor of the coax, and/or causing catastrophic failure of components in the output network of the tx PA.

But, given enough tx power, these failure events are common when a tx tries to supply its full output power into a very high mismatch at the end of a run of coax. I have had to fix some of these systems after this happened to them.

Please explain how this fits with your theory, Reg.

RF

88. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 17:45:57 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <pd0Se.5659$_84.3395@newsread1.news.atl.earthlink.net>
Source record: 71085

"Ham op" <hamop@comcast.net> wrote in message
news:TtydndNRkadrGYXeRVn-tQ@comcast.com...
> Fred W4JLE wrote:
> > Come on Roy, your picking an example that has nothing to do with the
real
> > world. How many people try to work 20 meters on a 2 foot Sony whip?
> >
> Possibly the same people who want to work 80 meters on an 8 foot whip !!!!
>
> SNIPPED

It s easy to see you have no concept of how things work. An 8 foot whip is about as big as most mobiles can use. I just worked a friend of mine that does a lot of camping. He uses either a screwdriver antenna or a dipole only up about 10 to 15 feet depending on where he is at. Most distances are around 200 miles from my house. There does not seem to be much differance in his signal with that low dipole. I am sure the dipole would be beter if he could get it up higher, but you use what you have.

Many times the absolute strength of the signal does not make that much differance. It is how well you can get above the noise and qrm that is on the bands. That is where the beter antenna and higher power come in.

All of this is for the low bands , when you get to vhf and above then the antenna system usually becomes all important.
>

89. Re: EMRP effective monopole radiated power

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 17:59:26 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <3d4hh1l7p4knop8jsust9dm5bgm3aklu0f@4ax.com>
Source record: 71086

On 2 Sep 2005 06:44:29 -0700, "CD" <mr.whatever@gmail.com> wrote:

>Hello again everyone,
>
>I was reading through a transmitter datasheet and it stated that it is
>capable of outputting 1-50W. However, I got an email from the company
>stating that it is only designed to work at 1W EMRP. Upon further
>reading, I discovered that the effective monopole radiated power is the
>transmitter output power multiplied by the antenna gain.
>
>I'm a bit confused because if EMRP depends on antenna gain, then can't
>the antenna be designed to have a higher gain and thus have a higher
>EMRP? How can a transmitter be designed only for 1W EMRP? Does changing
>the antenna design likely affect the transmitter performance?
>
>I figured since the TX has a standard 50ohm output impedance, then as
>long as I match the antenna I should not worry about VSWR going over
>the max rating for the TX, no?

I'm guessing that you aren't a ham or that if you are this transmitter
is specified for some other service that is regulated to 1 W erp.
With an efficient antenna the transmitter output should be limited;
with a less efficient antenna the transmitter has reserve capability
to overcome the inefficiency.

Just a guess...

90. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 18:27:51 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <zcCdnS3gyqJxBIXeRVn-sQ@comcast.com>
Source record: 71087
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Polymath wrote:

> A good point.
>
> WWII was started by Britland with the express purpose
> of dispersing the invaders from Poland, and yet the
> war ended with invaders in Poland.

Who were NOT British, French, Belgian, Finnish, Irish, Canadian,
Scottish, Aussie, NZlanders, American or German.

If I recall ancient history, ca 1991, Poland is FREE!
>
> Therefore, Britland (and Yankland for all its pompous
> posturing) _LOST_ WWII.

German's surrended, NOT Brits or Yanks or the members of the above list.

Get your head out of the 'pint' and do REAL history!!

We love you anyway.

91. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 18:39:02 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dfa8j2kbt1@news.service.uci.edu>
Source record: 71089

Cecil Moore wrote:

> dansawyeror wrote:
>
>> If it is true it proves that a driving a "bad" load can cause the coax
>> feedline to radiate a significant portion of the feed energy. At this
>> point I am not sure what word to use other then 'bad', but I due
>> intend to perform experiments to measure and verify what is happening
>> and the model.
>>
>>> dansawyeror wrote:
>>>
>>>> Below is a link to a site that claims to model coax radiation from a
>>>> dipole.
>>>>
>>>> http://www.smeter.net/feeding/feedpowr.php
>
>
> We are in a position now to say what is wrong with that program.
> Essentially, it violates the conservation of energy principle.
>
> Energy cannot exist as both reflected power and radiated power
> at the same time.
>
> If the SWR is 1400:1, the feedline cannot be radiating much
> because the reflected power is 99.7% of the forward power
> and both are based on differential currents which don't
> radiate. That leaves only 0.3% of the power available for
> radiating by the feedline.
>
> If 99.9% of the power is radiated by the coax braid, then the
> feedline SWR must be very close to 1.6:1 because the ratio of
> reflected power to forward power can be no more than 0.1/100.
>
> As with cake, you cannot have your reflected power and radiate
> it too. Reflected power plus radiated power cannot add up to
> more than the forward power. In fact, Pfor = Pref + Prad
> If 50% of the power is radiated by the antenna plus feedline,
> then 50% of the power is reflected and the SWR is 5.83:1.

Bear in mind that current flowing in a conductor will always generate a
field. Alternating current flowing in a (straight) conductor will
always generate a radiating electromagnetic field. That radiating field
will convey energy if it is not nulled by another equal and opposite
field. You need to demonstrate that all the fields resulting from all

the currents are nulled in this scenario.

Back into the woodwork.

ac6xg

92. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 19:11:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125688453_2449@spool6-east.superfeed.net>
Source record: 71088

Walter Maxwell wrote:
> You're saying the Brits started WWII?

It's a trick question, Walt. It technically wasn't yet
a "World War" when the Nazis invaded Poland. It wasn't
a "World War" until the Brits declared war and their
allies joined them. :-) Some would argue that it really
wasn't a "World War" until the US was attacked by Japan.
As they say, the rest is history.
--
73, Cecil http://www.qsl.net/w5dxp

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93. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 19:23:49 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1125689029.937945.323420@f14g2000cwb.googlegroups.com>
Source record: 71090

I'm not sure where in this convoluted thread to put this, and please excuse me if the point has been made before but I just wanted to reiterate...

When you put up an antenna system, pretty much _everything_ in the vicinity of the wires you think of as the "antenna" is actually part of the antenna system. Of special concern are all conductors, as well as big pieces of dielectric material and lossy material. Certainly ground has a profound effect on the radiation pattern, for example.

I'm really not so concerned with "how much power is radiated from my feedline" as I am with "what is the radiation pattern (and in some cases, efficiency) of my entire antenna system." To the end of controlling the radiation pattern, I may wish to suppress antenna currents on things like support wires and feedlines. Or, I may model the system and find that antenna currents on the feedline are really not a problem. In the case where I do care, I can add "current baluns" or "choke baluns" or other structures as needed, or change the configuration to break up the unwanted currents. In some cases, a balun can be as simple as a hunk of ferrite clamped over the feedline. I've also used self-resonant coils of coaxial feedline to very effectively suppress current at a particular frequency. Breaking up support wires with insulators can be very useful.

If you think that antenna current on the feedline is always a BAD thing, consider the coaxial collinear, where the sections of feedline that compose the antenna are INTENDED to radiate. On the other hand, with that antenna, it's very important to suppress antenna current on the line feeding the antenna part, because it doesn't take much antenna current on that line to mess up the radiation pattern. But with an 80 meter coax-fed dipole, the pattern may actually be better for some purposes if you don't suppress the antenna current on the feedline.

Again, the question I care about is, "What is the pattern for this antenna," not "How much power does the feedline radiate." Is this really so different from caring more about properly loading a transmitter and getting power efficiently to the antenna, instead of caring specifically about transmission line SWR? Focus on what gets you the results you want, not on red herrings or old husband's tales.

Cheers,
Tom

94. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 19:38:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125690083_2477@spool6-east.superfeed.net>
Source record: 71091

Jim Kelley wrote:
> Bear in mind that current flowing in a conductor will always generate a
> field. Alternating current flowing in a (straight) conductor will
> always generate a radiating electromagnetic field. That radiating field
> will convey energy if it is not nulled by another equal and opposite
> field. You need to demonstrate that all the fields resulting from all
> the currents are nulled in this scenario.

It is true by definition for ideal coaxial feedlines in which the
radiating fields are 100% nulled by the basic shielded design, i.e.
solid copper outer tubing much thicker than the skin effect depth.
The problem with the program is that the conclusions violate the
conservation of energy principle. It is simply impossible to have
a coax SWR of 1400:1 while radiating 99.9% of the power from the
feedline.
--
73, Cecil http://www.qsl.net/w5dxp

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95. Re: Power radiated from feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 19:40:41 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125690199_2481@spool6-east.superfeed.net>
Source record: 71092

K7ITM wrote:
> Again, the question I care about is, "What is the pattern for this
> antenna," not "How much power does the feedline radiate."

The present question has nothing to do with reality. The
present question is: what is wrong with the simulation software?
--
73, Cecil http://www.qsl.net/w5dxp

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96. Re: EMRP effective monopole radiated power

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 19:52:51 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <O22Se.114$FO3.68@bignews3.bellsouth.net>
Source record: 71093

Why don'tcha share with us the rest of the story.
What brand and model number is the transmitter you speak of.

97. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 19:55:49 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <4318ad1a.871931361@news.blueyonder.co.uk>
Source record: 71094
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

On Fri, 02 Sep 2005 12:10:27 GMT, Russ <carlzomer@hotmail.com> wrote:

>On 1 Sep 2005 22:04:10 -0700, "Polymath" <aiyr.r.bean@lycos.co.uk>
>wrote:
>
>>What a lot of fuss about _NOTHING_ from you Yanks!
>>
>>What has happened down south is exactly what you have
>>been meting out to the citizenry of Yugoslavia, of
>>Afghanistan and latterly of Iraq - the destruction
>>of the civilain infrastructure.
>>

<Snip crap>
>
>Thanks, you worthless piece of crap. We note your caring attitude for
>those in distress. Deep down, all socialists are violent, hate-filled
>potential dictators. Oh, and Jerry Hollombe would be surprised at
>your screen name. Polymath, indeed. Do you call yourself that
>because you can actually count past three?
>
>R

Just ignore Plymath!

He is actually Gareth A. Evans, G4SDW of Chippenham, England. He is
obviously retarded in many ways as you can see..

I'm very sorry you folk in the USA have to read his garbage,
particularly in a situation like the hurriucane disaster.

Peter, G3PHO

98. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 19:59:33 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <8mbhh1dul0v18n8a7728035vihmf7b6k40@4ax.com>
Source record: 71095

On Fri, 02 Sep 2005 14:11:33 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Walter Maxwell wrote:
>> You're saying the Brits started WWII?
>
>It's a trick question, Walt. It technically wasn't yet
>a "World War" when the Nazis invaded Poland. It wasn't
>a "World War" until the Brits declared war and their
>allies joined them. :-) Some would argue that it really
>wasn't a "World War" until the US was attacked by Japan.
>As they say, the rest is history.

No trick question, Cecil, just perception. What became WWII was
without question the Hitlerian invasion of Sudetenland.

99. Re: Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 20:00:12 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <H92Se.118$FO3.115@bignews3.bellsouth.net>
Source record: 71096

I dunno for sure but, this might work ...
has anyone out there tried putting traps into a food dehydrator for a few days to dry out ?
then of course, you would seal it up with something like scotchkote or urethane.

"Rick Scott" <RickN7HJ@gmail.com> wrote in message news:1125519228.281357.3190@z14g2000cwz.googlegroups.com...
> My old Cushcraft A3 is more than likely due for a take down and
> refurbish. Ive not really touched it in a long time and have never
> opened the traps. 15m is suffering so I may have a bad trap.
>
> So, I did a net search and not too many have posted how its done.
> SOOOO, with that I come hat in hand for hints/tips etc from those that
> have went there.
>
>
> Scotty N7HJ
>

100. Re: Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 20:52:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1125694481_2551@spool6-east.superfeed.net>
Source record: 71097

Hal Rosser wrote:
> I dunno for sure but, this might work ...
> has anyone out there tried putting traps into a food dehydrator for a few
> days to dry out ?

Nitrogen flushing always worked for me, at least for awhile.
--
73, Cecil http://www.qsl.net/w5dxp

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101. Polymath (aka Gareth) is a Troll...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 22:06:38 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <O14Se.5361$Wd7.850@newsread1.news.pas.earthlink.net>
Source record: 71098

And we, by definition, are guilty of "feeding the Troll."

But look on the bright side: "Polymath's" demented
and hateful political ravings make those of Reg look
almost sane by comparison... no small feat!

How about we all killfile "Polymath" now, and stop
feeding this particular Troll?

Ed

102. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-02 22:13:00 UTC
From: jm <nospam@garbagecan.com>
Message-ID: <Q64Se.32395$Tf5.23403@newsread1.mlpsca01.us.to.verio.net>
Source record: 71099
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:4318ad1a.871931361@news.blueyonder.co.uk...
> On Fri, 02 Sep 2005 12:10:27 GMT, Russ <carlzomer@hotmail.com> wrote:
>
>>On 1 Sep 2005 22:04:10 -0700, "Polymath" <aiyr.r.bean@lycos.co.uk>
>>wrote:
>>
>>>What a lot of fuss about _NOTHING_ from you Yanks!
>>>
>>>What has happened down south is exactly what you have
>>>been meting out to the citizenry of Yugoslavia, of
>>>Afghanistan and latterly of Iraq - the destruction
>>>of the civilain infrastructure.
>>>
>
> <Snip crap>
>>
>>Thanks, you worthless piece of crap. We note your caring attitude for
>>those in distress. Deep down, all socialists are violent, hate-filled
>>potential dictators. Oh, and Jerry Hollombe would be surprised at
>>your screen name. Polymath, indeed. Do you call yourself that
>>because you can actually count past three?
>>
>>R
>
>
> Just ignore Plymath!
>
> He is actually Gareth A. Evans, G4SDW of Chippenham, England. He is
> obviously retarded in many ways as you can see..
>
> I'm very sorry you folk in the USA have to read his garbage,
> particularly in a situation like the hurriucane disaster.
>
> Peter, G3PHO

We or at least "I" don't judge a whole country on the potty mouth of one.
We're still your friends and probably will be for life! It is sometimes hard
to ignore a$$ holes without defending oneself, but that truly is the best
course of conduct. Maybe one day he'll find himself in the midst of some
terrible plight and as he lays there suffering, he'll think back of all his
assinine words.

jm

jm

103. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 00:49:24 UTC
From: kashe@sonic.net
Message-ID: <inshh11oq61cp15brlk5ne6kek6ii8fgna@4ax.com>
Source record: 71100
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

On Fri, 02 Sep 2005 14:27:51 -0400, Ham op <hamop@comcast.net> wrote:

>Polymath wrote:
>
>> A good point.
>>
>> WWII was started by Britland with the express purpose
>> of dispersing the invaders from Poland, and yet the
>> war ended with invaders in Poland.
>
>Who were NOT British, French, Belgian, Finnish, Irish, Canadian,
>Scottish, Aussie, NZlanders, American or German.
>
>If I recall ancient history, ca 1991, Poland is FREE!
>>
>> Therefore, Britland (and Yankland for all its pompous
>> posturing) _LOST_ WWII.
>
>German's surrended, NOT Brits or Yanks or the members of the above list.

France is in the list. France surrendered.

>
>Get your head out of the 'pint' and do REAL history!!
>
>We love you anyway.

104. Re: Hey Charlie AD5TH - your tower still standing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 00:49:40 UTC
From: John Ferrell <johnferrell@earthlink.net>
Message-ID: <Eq6Se.5848$9i4.525@newsread2.news.atl.earthlink.net>
Source record: 71101

Its OK to vent your frustrations, I am just glad to hear you are doing well
and are safe.

Our country is at a point where we need to close ranks and do what we can to
help. From my distant location, that means pray and not consume any more
resources than necessary.

--
John Ferrell
http://DixieNC.US

"Charlie" <chas@aol.com> wrote in message
news:11hffgatnkomr37@news.supernews.com...
> Well I do apologize for the language. We lost all power in the entire
> county ..the water is city supplied but pumped with electric pumps.
>
> Yeah I kinda let loose a bit..it has been a stressful 72 hours. 73
>
> --
>
> Charlie
>
>
>
>
>
>
> "David G. Nagel" <nagel@core.com> wrote in message
> news:11hf7gj9b6ek9ce@corp.supernews.com...
>> Charlie wrote:
>>> Yes the tower is fine...see this updated page
>>>
>>> 1. http://www.deepsouthnet.net/storm_damage.html
>>>
>>> Now you bozos that berated it and disbelieved my account of hurricane
>>> Dennis might now see thinks more clearly with Katrina. We had hour upon
>>> hour of 60 mph + winds with gusts from 80-90mph. Believe it or
>>> fuck-off..I don't much give a shit
>>> Just got our phone,power and water restored today...
>>>
>>> I invite you dick heads to drop by my callbook address for a "cup of
>>> coffee"...oh yeah come on over....
>>>
>> Charlie;
>>

>> Congratulations on surviving Katrina. Glad to see your tower is still up
>> and functioning. New pictures can't be beat.
>>
>> Figured you were out of power and phone, didn't know about the water.
>> (Are you on a well?).
>>
>> Frustration is no excuse for the language though.
>>
>> Dave WD9BDZ
>
>

105. question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 01:21:07 UTC
From: cheian07@yahoo.com
Message-ID: <1125710467.199345.274220@z14g2000cwz.googlegroups.com>
Source record: 71102

greetings,

can someone direct me on the ways driven element of a yagi is attached to a boom. can a driven element (folded dipole or ordinary dipole)electrically connected to a boom or not? what will be the effect? or can i use wood as a boom? can someone also give me some formula on yagi design (length, spacing etc)

help would be greatly appreciated.

thanks,

ian

106. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 01:49:38 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <537e1$43190139$471c610a$4294@ALLTEL.NET>
Source record: 71103
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Thank you Peter, we have our share of buttheads here as well. We well understand his type. Here it is folks that are blaming the whole deal on George Bush.

.
"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:4318ad1a.871931361@news.blueyonder.co.uk...
> Just ignore Plymath!
>
> He is actually Gareth A. Evans, G4SDW of Chippenham, England. He is
> obviously retarded in many ways as you can see..
>
> I'm very sorry you folk in the USA have to read his garbage,
> particularly in a situation like the hurriucane disaster.
>
> Peter, G3PHO

107. Re: Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 02:02:22 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <dt7Se.1760$L86.1582@bignews6.bellsouth.net>
Source record: 71104

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1125694481_2551@spool6-east.superfeed.net...
> Hal Rosser wrote:
> > I dunno for sure but, this might work ...
> > has anyone out there tried putting traps into a food dehydrator for a
few
> > days to dry out ?
>
> Nitrogen flushing always worked for me, at least for awhile.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

I guess the word is "Kool!"
our Wal-Mart ran out of nitrogen toilets, so nitrogen flushing may be a
second alternative.

108. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 02:23:39 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <LO7Se.6101$FW1.5580@newsread3.news.atl.earthlink.net>
Source record: 71105

<cheian07@yahoo.com> wrote in message
news:1125710467.199345.274220@z14g2000cwz.googlegroups.com...
> greetings,
>
> can someone direct me on the ways driven element of a yagi is attached
> to a boom. can a driven element (folded dipole or ordinary
> dipole)electrically connected to a boom or not? what will be the
> effect? or can i use wood as a boom? can someone also give me some
> formula on yagi design (length, spacing etc)
>
You can make the boom out of anything that will be mechanically strong enough. If it is conductive or not will have an effect on the lengths of the elements. It will also change if the elements are insulated or not. Depending on the design of the driven element element, it may or may not be connected to the boom.

You really need to just find the type of beam you want and copy it. If you find one you want and the frequency is diffeant , you can scale it, but you must be sure to scale all the parts, boom diameter, element diameter and all the other elements.

109. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 04:22:11 UTC
From: richardharrison@webtv.net
Message-ID: <1515-431924F3-109@storefull-3258.bay.webtv.net>
Source record: 71107

Walter, W2DU wrote:
"What became WWII was without question the Hitlerian invasion of the Sudetenland."

Maybe so, but it was taken without firing a shot.

I recall that on September 29, 1938, Neville Chamberlin, Adolph Hitler, Edouard Daladier, and Benito Mussolini signed the Munich Agreement which transferred to Germany the Sudetenland, that contained a large German-speaking population from Czechoslovakia.

Chamberlin, caricatured in the U.S. with his umbrella and briefcase, shared with Hitler an extreme dislike of bolsheviks. These proclivities were demonstrated during the 1937 Spanish Civil War.

Chamberlin, the appeaser, went home from Munich declaring "Peace in Our Time".

On September 1, 1939, nine days after signing a nonagression pact with the Soviet Union, in the predawn darkness, Hitler attacked by land, sea, and air, and captured by day`s end, the Polish port city of Danzig.

WW-2 officially began two days later, on September 3, 1939 when Brittain and France declared war on Germany.

Best regards, Richard Harrison, KB5WZI

110. 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 04:29:17 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfb8r0$u63$1@news.netins.net>
Source record: 71106

45' high, 25.8 sloping wire at the top, 29 feet high at the far end. #12 THHN Insulated copper wire, stranded.

Predicted Radiation Resistance: 25.8 ohms, very good ground (rich pastoral, midwest).

With no radials, I get a flat 50 ohm match at 3595 khz. Obviously this would indicate ground losses of approximately 25 ohms, if I'm thinking about this right. Also, predicted efficiency would then be 50 % (25/(25+25), indicating a 3 dB loss. Forgetting about fresnel region losses, this seems to be better than I had expected. 2:1 vswr bandwidth is very broad....broader than what I get with EZnec 4.x with a 25 ohm load in the base.

This means one of two things to me:

Either my ground losses are much higher than the 25 ohms I'm indirectly calculating, or I have made some sort of conceptual error in thinking about what the implications are of a 25 or 26 ohm feedpoint. All my references point toward a 25 ohm radiation resistance for my 42' vertical x 25.8 ft inverted L (with sloping top wire instead of flat top wire). What is wrong with my logic here? If the R(rad) is 25 ohms, and I measure a flat VSWR (on two other meters) at 3600 khz, then isn't the remaining 25 ohms, ground loss?

I also show about 37 ohms resistance and 0 ohms reactance at 3600 khz with my MFJ-269, which is really confusing, in that if I have 25 ohms for Rrad, then I have 13 ohms of ground losses. Further, 37 ohms is around 1.3 to 1. So I have two other vswr meters showing 1:1 at 3600, and the MFJ showing 37 ohms. This is a pretty large percentage difference.

I would be inclined to believe the 25.8 ohms predicted by both EZnec 4 and the Low Band DX'rs Handbook. In any case, I'll put out 4 radials tomorrow morning and repeat all my measurements, looking for narrowing bandwidth and lowered input Z as my ground losses decrease.

Ultimately, I'm going to put down 16, 66' radials, in steps of four, taking measurements of input Z (mfj-269) and vswr bandwidth for 2:1, at 0,4,8 and 16 radials. I'll report what happens as I go along.

Anywho, without any radials at all there are quite a few distant signals on 80m this evening, that are consistently louder on the newly installed inverted L, than on my Carolina Windom at 45'. Most signals as one pans the band, are louder (at 2 hours after sunset) on the C. Windom than on the radial-less inverted L, but ones from several states away are equal or better on the radial-less inverted L. Both seem to make good sense at this point. I sure will be interested to see the effects of 4 and then 8 and on up radials, but that is going to take a few days, because I don't want to

make radial changes unless I have access to low angle signals, which only happens at night or just before sunrise.

Tomorrow is radial day. I will be laying out 4 radials 65' long to begin with. I have resistance and reactance measurements every 50 khz as a baseline, before installing radials. 4 in the early morning, 4 more just before sunset, then 4 more the next morning, and the final 4 the next evening. #14 THHN stranded insulated copper wire for the radials, btw.

Depending on what I end up seeing for "effect" I'll go to 24 or 32 radials by winter....but only if the improvement is both measurable and "observable on the air"...radials are a pain in the rear (or more accurately, the knees) to put in.

What fun!

...hasan, N0AN

111. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 07:45:30 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <4319549A.2070801@killspam.internode.on.net>
Source record: 71108

> can someone direct me on the ways driven element of a yagi is attached
> to a boom. can a driven element (folded dipole or ordinary
> dipole)electrically connected to a boom or not? what will be the
> effect? or can i use wood as a boom? can someone also give me some
> formula on yagi design (length, spacing etc)

Just do a Google search on DL6WU - you can download the design program
and go from there.
Alan
VK2TWB

112. Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 08:32:53 UTC
From: Fedthecat <Fedthecat@aol.com>
Message-ID: <1125736373.469540.275780@g14g2000cwa.googlegroups.com>
Source record: 71109

Bought a small boombox. It has no antenna connection screws, just a built-in antenna. It gets no AM stations at all, just static. I work in a big GM plant (all steel building). Nobodies radios get AM.

I mounted a car antenna on a bracket (isolated from the bracket with a rubber gromet) and mounted the bracket to a chain link fence 20ft from the plant. I hooked a coax center wire to the antenna base. I clamped the braided wire to the bracket. At the other end, inside the plant, I connected the center wire to the built-in antenna on the radio via an alligator clip. I still get no AM. I haven't hooked the braided wire to anything because I have no terminals on the radio. Do I hook it to any ground, such as an eletrical conduit or can I hook it to the radios battery ground terminals(I am not using the battery terminals because I am plugged into an outlet)? Am I far enough from the building? Do I need to be above the building? Is there a limit to how long my coax can be? Any advice is more than I currently have. Thanks...

113. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 11:47:20 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfc2g9$8a3$1@news.netins.net>
Source record: 71110

Starting point for the inverted L with sloping top loading wire.

45' high, 25.8' sloping wire at the top, 29 feet high at the far end. #12 THHN Insulated copper wire, stranded. Mounted 7" above the earth, directly to a 3' ground rod (strictly for mechanical support, as I had a prefab mount with 3/8x24 on one end and SO-29 on the other)

Predicted Radiation Resistance (Devoldere): 25.8 ohms, very good ground (rich pastoral, midwest).

I see I had confused feedpoint impedance and radiation resistance (after reading some more in Devoldere's "Low-Band DX'ing")

According to Figure 9-94, the radiation resistance for my inverted L is approximately 25 ohms. According to EZnec 4.1, source data says:

Impedance = 25.58 + J 1.872 ohms at 3600 khz.

When I measure the antenna with the MFJ-269, I get:

R=37 and X=0

If Devoldere and EZNEC are correct (although EZNEC may or may not be measuring radiation resistance), then my radial-less inverted L is showing ground losses of 37-25=12 ohms. If so, then my efficiency, without radials is:
25/(25+12) or 25/37 or approximately 67%.

Before installing radials this morning, I just want to make sure I'm looking at the right variables and interpreting them properly. 4 radials, laying on the ground, will be ready to install when the sun comes up. 4 more later in the day, etc., up to a total of 16 (the amount of wire I have ready to go). Each time I put down 4, I'll take another measurement with the 269. For kicks, I might take a measurement with just one or two first.

...hasan, N0AN

114. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 11:55:13 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <xMudncGoYMbmEoTeRVn-jw@comcast.com>
Source record: 71111

Richard Harrison wrote:
> Walter, W2DU wrote:
> "What became WWII was without question the Hitlerian invasion of the
> Sudetenland."
>
> Maybe so, but it was taken without firing a shot.
>
> I recall that on September 29, 1938, Neville Chamberlin, Adolph Hitler,
> Edouard Daladier, and Benito Mussolini signed the Munich Agreement which
> transferred to Germany the Sudetenland, that contained a large
> German-speaking population from Czechoslovakia.
>
> Chamberlin, caricatured in the U.S. with his umbrella and briefcase,
> shared with Hitler an extreme dislike of bolsheviks. These proclivities
> were demonstrated during the 1937 Spanish Civil War.
>
> Chamberlin, the appeaser, went home from Munich declaring "Peace in Our
> Time".
>
> On September 1, 1939, nine days after signing a nonagression pact with
> the Soviet Union, in the predawn darkness, Hitler attacked by land, sea,
> and air, and captured by day`s end, the Polish port city of Danzig.
>
> WW-2 officially began two days later, on September 3, 1939 when Brittain
> and France declared war on Germany.
>
> Best regards, Richard Harrison, KB5WZI
>
Don't you just love people who have their facts straight?

115. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 11:58:34 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <xMudncCoYMbZDYTeRVn-jw@comcast.com>
Source record: 71112

All YAGI elements can, and most are, center mounted on a conductive boom.

Reason: Voltage minimum.

You could use wood, but, man oh man, the problems that will surface
under weather condx.

cheian07@yahoo.com wrote:

> greetings,
>
> can someone direct me on the ways driven element of a yagi is attached
> to a boom. can a driven element (folded dipole or ordinary
> dipole)electrically connected to a boom or not? what will be the
> effect? or can i use wood as a boom? can someone also give me some
> formula on yagi design (length, spacing etc)
>
> help would be greatly appreciated.
>
> thanks,
>
> ian
>

116. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 12:00:42 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <xMudncOoYMZYDYTeRVn-jw@comcast.com>
Source record: 71113

At what point in the system are you making your measurements?

hasan schiers wrote:

> 45' high, 25.8 sloping wire at the top, 29 feet high at the far end. #12
> THHN Insulated copper wire, stranded.
>
> Predicted Radiation Resistance: 25.8 ohms, very good ground (rich pastoral,
> midwest).
>
> With no radials, I get a flat 50 ohm match at 3595 khz. Obviously this would
> indicate ground losses of approximately 25 ohms, if I'm thinking about this
> right. Also, predicted efficiency would then be 50 % (25/(25+25), indicating
> a 3 dB loss. Forgetting about fresnel region losses, this seems to be better
> than I had expected. 2:1 vswr bandwidth is very broad....broader than what I
> get with EZnec 4.x with a 25 ohm load in the base.
>
> This means one of two things to me:
>
> Either my ground losses are much higher than the 25 ohms I'm indirectly
> calculating, or I have made some sort of conceptual error in thinking about
> what the implications are of a 25 or 26 ohm feedpoint. All my references
> point toward a 25 ohm radiation resistance for my 42' vertical x 25.8 ft
> inverted L (with sloping top wire instead of flat top wire). What is wrong
> with my logic here? If the R(rad) is 25 ohms, and I measure a flat VSWR (on
> two other meters) at 3600 khz, then isn't the remaining 25 ohms, ground
> loss?
>
> I also show about 37 ohms resistance and 0 ohms reactance at 3600 khz with
> my MFJ-269, which is really confusing, in that if I have 25 ohms for Rrad,
> then I have 13 ohms of ground losses. Further, 37 ohms is around 1.3 to 1.
> So I have two other vswr meters showing 1:1 at 3600, and the MFJ showing 37
> ohms. This is a pretty large percentage difference.
>
> I would be inclined to believe the 25.8 ohms predicted by both EZnec 4 and
> the Low Band DX'rs Handbook. In any case, I'll put out 4 radials tomorrow
> morning and repeat all my measurements, looking for narrowing bandwidth and
> lowered input Z as my ground losses decrease.
>
> Ultimately, I'm going to put down 16, 66' radials, in steps of four, taking
> measurements of input Z (mfj-269) and vswr bandwidth for 2:1, at 0,4,8 and
> 16 radials. I'll report what happens as I go along.
>
> Anywho, without any radials at all there are quite a few distant signals on
> 80m this evening, that are consistently louder on the newly installed

> inverted L, than on my Carolina Windom at 45'. Most signals as one pans the
> band, are louder (at 2 hours after sunset) on the C. Windom than on the
> radial-less inverted L, but ones from several states away are equal or
> better on the radial-less inverted L. Both seem to make good sense at this
> point. I sure will be interested to see the effects of 4 and then 8 and on
> up radials, but that is going to take a few days, because I don't want to
> make radial changes unless I have access to low angle signals, which only
> happens at night or just before sunrise.
>
> Tomorrow is radial day. I will be laying out 4 radials 65' long to begin
> with. I have resistance and reactance measurements every 50 khz as a
> baseline, before installing radials. 4 in the early morning, 4 more just
> before sunset, then 4 more the next morning, and the final 4 the next
> evening. #14 THHN stranded insulated copper wire for the radials, btw.
>
> Depending on what I end up seeing for "effect" I'll go to 24 or 32 radials
> by winter....but only if the improvement is both measurable and "observable
> on the air"...radials are a pain in the rear (or more accurately, the knees)
> to put in.
>
> What fun!
>
> ...hasan, N0AN
>
>

117. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 14:27:52 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfcbt9dij1@news.netins.net>
Source record: 71114

Question: Where was I taking my measurements.

I started out at the actual feedpoint...then put in about 55' of LMR-400,
and started a new set of measurements in the shack. Here is the latest data:

Radials 2:1 Fo 2:1 BW Z VSWR @ Fo
0 3340 3522 3920 580 36,0 1.3
2 3354 3524 3774 420 45,0 1.0
4 3419 3533 3741 322 60,1 1.2
8 3445 3550 3742 297 65,4 1.3

The formatting is bad, but in order, left to right:

Number of Radials
Lower 2:1 vswr point
Resonant Freq point
Upper 2:1 point
Bandwidth in kilohertz
Impedance as shown on the MFJ 269 at resonance.

I'm a bit confused by the rising feedpoint impedance with increasing number
of radials. That seems backwards to me.

73,

...hasan, N0AN

VSWR shown by MFJ 269 at resonance
"Ham op" <hamop@comcast.net> wrote in message
news:xMudncOoYMZYDYTeRVn-jw@comcast.com...
> At what point in the system are you making your measurements?
>
> hasan schiers wrote:
>
>> 45' high, 25.8 sloping wire at the top, 29 feet high at the far end. #12
>> THHN Insulated copper wire, stranded.
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>> Predicted Radiation Resistance: 25.8 ohms, very good ground (rich
>> pastoral, midwest).
>>
>> With no radials, I get a flat 50 ohm match at 3595 khz. Obviously this
>> would indicate ground losses of approximately 25 ohms, if I'm thinking
>> about this right. Also, predicted efficiency would then be 50 %
>> (25/(25+25), indicating a 3 dB loss. Forgetting about fresnel region
>> losses, this seems to be better than I had expected. 2:1 vswr bandwidth
>> is very broad....broader than what I get with EZnec 4.x with a 25 ohm
>> load in the base.

>>
>> This means one of two things to me:
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>> Either my ground losses are much higher than the 25 ohms I'm indirectly
>> calculating, or I have made some sort of conceptual error in thinking
>> about what the implications are of a 25 or 26 ohm feedpoint. All my
>> references point toward a 25 ohm radiation resistance for my 42' vertical
>> x 25.8 ft inverted L (with sloping top wire instead of flat top wire).
>> What is wrong with my logic here? If the R(rad) is 25 ohms, and I measure
>> a flat VSWR (on two other meters) at 3600 khz, then isn't the remaining
>> 25 ohms, ground loss?
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>> I also show about 37 ohms resistance and 0 ohms reactance at 3600 khz
>> with my MFJ-269, which is really confusing, in that if I have 25 ohms for
>> Rrad, then I have 13 ohms of ground losses. Further, 37 ohms is around
>> 1.3 to 1. So I have two other vswr meters showing 1:1 at 3600, and the
>> MFJ showing 37 ohms. This is a pretty large percentage difference.
>>
>> I would be inclined to believe the 25.8 ohms predicted by both EZnec 4
>> and the Low Band DX'rs Handbook. In any case, I'll put out 4 radials
>> tomorrow morning and repeat all my measurements, looking for narrowing
>> bandwidth and lowered input Z as my ground losses decrease.
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>> Ultimately, I'm going to put down 16, 66' radials, in steps of four,
>> taking measurements of input Z (mfj-269) and vswr bandwidth for 2:1, at
>> 0,4,8 and 16 radials. I'll report what happens as I go along.
>>
>> Anywho, without any radials at all there are quite a few distant signals
>> on 80m this evening, that are consistently louder on the newly installed
>> inverted L, than on my Carolina Windom at 45'. Most signals as one pans
>> the band, are louder (at 2 hours after sunset) on the C. Windom than on
>> the radial-less inverted L, but ones from several states away are equal
>> or better on the radial-less inverted L. Both seem to make good sense at
>> this point. I sure will be interested to see the effects of 4 and then 8
>> and on up radials, but that is going to take a few days, because I don't
>> want to make radial changes unless I have access to low angle signals,
>> which only happens at night or just before sunrise.
>>
>> Tomorrow is radial day. I will be laying out 4 radials 65' long to begin
>> with. I have resistance and reactance measurements every 50 khz as a
>> baseline, before installing radials. 4 in the early morning, 4 more just
>> before sunset, then 4 more the next morning, and the final 4 the next
>> evening. #14 THHN stranded insulated copper wire for the radials, btw.
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>> Depending on what I end up seeing for "effect" I'll go to 24 or 32
>> radials by winter....but only if the improvement is both measurable and
>> "observable on the air"...radials are a pain in the rear (or more
>> accurately, the knees) to put in.
>>
>> What fun!

>>
>> ...hasan, N0AN
>

118. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 14:36:37 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfccdl$e3n$1@news.netins.net>
Source record: 71115

OK, here is my summary table for up to 8 radials, 66 feet long, insulated wire, laying on the ground: (all measurements at the shack end of 55' of LMR-400 coax, buried)

Radials 2:1 Fo 2:1 BW Z VSWR @ Fo
0 3340 3522 3920 580 36,0 1.3
2 3354 3524 3774 420 45,0 1.0
4 3419 3533 3741 322 60,1 1.2
8 3445 3550 3742 297 65,4 1.3

The formatting is bad, but in order, left to right:

Number of Radials
Lower 2:1 vswr point
Resonant Freq point
Upper 2:1 point
Bandwidth in kilohertz
Impedance as shown on the MFJ 269 at resonance.

I'm a bit confused by the rising feedpoint impedance with increased radial numbers, but the narrowing down of the bandwidth indicates decreased losses. It also indicates (since it continues to decrease), that I should add another 8 radials to see if I begin approaching the asymptote (sp?). The rate of change is slowing quite a bit.

Any input as to explanations and the data are most welcome.

...hasan, N0AN

p.s. Performance seems quite good for a VERY limited sample. A w6 this morning was 2 to 3 S-units stronger on the inverted L than on the 45' high Carolina Windom 80. An LU6 was coming in S9 with an S5 noise level, and responded with a 59+ signal report on the first call. A sampling of other signals prior to or shortly after sunrise is showing a clear superiority of the inverted L with 8 radials over the CW 80, at distances > 1500 km. Less than that distance and either antenna could have the upper hand until one gets to within the state of Iowa. I'll have to do more measurements to get a firm idea as to where the cross-over point is between the two antennas.
"hasan schiers" <schiers@netins.net> wrote in message news:dfb8r0$u63$1@news.netins.net...
> 45' high, 25.8 sloping wire at the top, 29 feet high at the far end. #12
> THHN Insulated copper wire, stranded.
>
> Predicted Radiation Resistance: 25.8 ohms, very good ground (rich
> pastoral, midwest).
>

> With no radials, I get a flat 50 ohm match at 3595 khz. Obviously this
> would indicate ground losses of approximately 25 ohms, if I'm thinking
> about this right. Also, predicted efficiency would then be 50 %
> (25/(25+25), indicating a 3 dB loss. Forgetting about fresnel region
> losses, this seems to be better than I had expected. 2:1 vswr bandwidth is
> very broad....broader than what I get with EZnec 4.x with a 25 ohm load in
> the base.
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> references point toward a 25 ohm radiation resistance for my 42' vertical
> x 25.8 ft inverted L (with sloping top wire instead of flat top wire).
> What is wrong with my logic here? If the R(rad) is 25 ohms, and I measure
> a flat VSWR (on two other meters) at 3600 khz, then isn't the remaining 25
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> "observable on the air"...radials are a pain in the rear (or more
> accurately, the knees) to put in.
>
> What fun!
>
> ...hasan, N0AN
>

119. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 14:47:17 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <g7djh19f260apvll8gjevfffk5jhbpqe5d@4ax.com>
Source record: 71116

On Fri, 2 Sep 2005 23:29:17 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>45' high, 25.8 sloping wire at the top, 29 feet high at the far end. #12
>THHN Insulated copper wire, stranded.
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>by winter....but only if the improvement is both measurable and "observable
>on the air"...radials are a pain in the rear (or more accurately, the knees)
>to put in.
>
>What fun!

Indeed.

Unfortunately, I believe that you are at the mercy of your
instrumentation. I doubt that you can make meaningful measurements of
the differences resulting from the addition of a few radials at a
time.

The fact that you can't get correlation between measurements made on
the -same- antenna with different instruments is a problem. Until you
have two clocks that read the same, you don't know what time it is.

120. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 14:50:43 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfcd83$dv8$1@news.netins.net>
Source record: 71117

I do have correlation now. The vswr meters and the mfj all read the same resonant frequency now, Wes. See my post that shows the data for 0,2,4,8 radials. While a given absolute value might be in error (a certainty due to inexpensive instruments), the trend is sound for bandwidth, but a bit strange for feedpoint impedance. (BW is narrowing but input Z is going up, with increasing numbers of radials.)

Ideas?

73,

...hasan, N0AN
"Wes Stewart" <n7ws_@*yahoo.com> wrote in message
news:g7djh19f260apvll8gjevfffk5jhbpqe5d@4ax.com...
> On Fri, 2 Sep 2005 23:29:17 -0500, "hasan schiers"
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>>inverted L, than on my Carolina Windom at 45'. Most signals as one pans
>>the
>>band, are louder (at 2 hours after sunset) on the C. Windom than on the
>>radial-less inverted L, but ones from several states away are equal or
>>better on the radial-less inverted L. Both seem to make good sense at
>>this
>>point. I sure will be interested to see the effects of 4 and then 8 and on
>>up radials, but that is going to take a few days, because I don't want to
>>make radial changes unless I have access to low angle signals, which only
>>happens at night or just before sunrise.
>>
>>Tomorrow is radial day. I will be laying out 4 radials 65' long to begin
>>with. I have resistance and reactance measurements every 50 khz as a
>>baseline, before installing radials. 4 in the early morning, 4 more just
>>before sunset, then 4 more the next morning, and the final 4 the next
>>evening. #14 THHN stranded insulated copper wire for the radials, btw.
>>
>>Depending on what I end up seeing for "effect" I'll go to 24 or 32 radials
>>by winter....but only if the improvement is both measurable and
>>"observable
>>on the air"...radials are a pain in the rear (or more accurately, the
>>knees)
>>to put in.
>>
>>What fun!

>
> Indeed.
>
> Unfortunately, I believe that you are at the mercy of your
> instrumentation. I doubt that you can make meaningful measurements of
> the differences resulting from the addition of a few radials at a
> time.
>
> The fact that you can't get correlation between measurements made on
> the -same- antenna with different instruments is a problem. Until you
> have two clocks that read the same, you don't know what time it is.

121. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 15:29:36 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <oNidnYoqTfXBXITeRVn-rA@web-ster.com>
Source record: 71118

Fedthecat wrote:
> Bought a small boombox. It has no antenna connection screws, just a
> built-in antenna. It gets no AM stations at all, just static. I work in
> a big GM plant (all steel building). Nobodies radios get AM.

But the radio _does_ work outside, yes? If not you're out of luck with
that radio.
>
> I mounted a car antenna on a bracket (isolated from the bracket with a
> rubber gromet) and mounted the bracket to a chain link fence 20ft from
> the plant. I hooked a coax center wire to the antenna base. I clamped
> the braided wire to the bracket. At the other end, inside the plant, I
> connected the center wire to the built-in antenna on the radio via an
> alligator clip. I still get no AM. I haven't hooked the braided wire to
> anything because I have no terminals on the radio.

> Do I hook it to any
> ground, such as an eletrical conduit or can I hook it to the radios
> battery ground terminals(I am not using the battery terminals because I
> am plugged into an outlet)?

Hooking it to the radio's battery ground terminal should work, if that
radio will work at all. If you can try the antenna installation with a
radio that has dedicated external antenna and ground terminals that
would be better - if it works with another radio and not yours then you
know that it's your radio.

> Am I far enough from the building?

Yes. You should be able to put the antenna right on the skin of the
building and have this idea work.

> Do I
> need to be above the building?

No, but it might help. Putting the antenna on a short mast (5-10 feet)
on the roof of the building would be ideal if you could get by building
maintenance.

> Is there a limit to how long my coax can
> be?

Not a limit, per se, but the longer your coax the more the signal will
be attenuated. Since your antenna isn't a significant fraction of a
wavelength long it will have a very poor match to your cable. Little
antennas like this look more like capacitive probes than like nice
healthy resistive sources. With a long cable any electric field around

the antenna will get split between the small capacitance of the whip and the large capacitance of the cable, so a long cable run will really pull the signal strength down.

The usual technique for good reception with capacitive whips like this is either to use a really short run of cable (like you see in a car) or to put a preamplifier with a high-impedance input right at the antenna and a low impedance drive to the cable -- then the signal down to the radio gets sent in a manner that's not attenuated by capacitive loading.

> Any advice is more than I currently have. Thanks...
>
Keep plugging away. I'd start with something known to work (like a radio right outside the door) and get closer to your goal with something that still works, until the radio is right where you want it to be and working the way you want.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

122. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 15:31:51 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <m5gjh19gmaqcotag6s9tmlma150veqts1f@4ax.com>
Source record: 71119

On 3 Sep 2005 01:32:53 -0700, "Fedthecat" <Fedthecat@aol.com> wrote:

>Bought a small boombox. It has no antenna connection screws, just a
>built-in antenna. It gets no AM stations at all, just static. I work in
>a big GM plant (all steel building). Nobodies radios get AM.
>
>I mounted a car antenna on a bracket (isolated from the bracket with a
>rubber gromet) and mounted the bracket to a chain link fence 20ft from
>the plant. I hooked a coax center wire to the antenna base. I clamped
>the braided wire to the bracket. At the other end, inside the plant, I
>connected the center wire to the built-in antenna on the radio via an
>alligator clip. I still get no AM. I haven't hooked the braided wire to
>anything because I have no terminals on the radio. Do I hook it to any
>ground, such as an eletrical conduit or can I hook it to the radios
>battery ground terminals(I am not using the battery terminals because I
>am plugged into an outlet)? Am I far enough from the building? Do I
>need to be above the building? Is there a limit to how long my coax can
>be? Any advice is more than I currently have. Thanks...

I could believe that it would be more cost effective to find an
existing AM radio that happens to already incorporate a ferrite rod
antenna and just go with that. If that wont work, then hopefully, it
will also have a single terminal as does the radio you are now trying,
and you could run a long wire.

Get about 100 to 200 feet of insulated hook up wire and run it from
the radio antenna terminal out a window, or whatever, and run it out
as far and as high as you can, staying away from metal objects.

Your idea of using a car antenna with a coax line is hopeless - forget
that.

123. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 15:53:11 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <p8mdnUPUvc_aWoTeRVn-ug@comcast.com>
Source record: 71120

If your antenna is over a PERFECT ground, an EM mirror, then the mutually coupled impedance between the antenna and it's image antenna gets to be a bit difficult to calculate or estimate. The Apex and it's image are 80 feet apart. That is 107 degree spacing, and the ends are 77 degrees apart. The mutual impedance along the length of the antenna changes due to the difference in phase shift.

Change from perfect reflecting ground to 'real' ground with varying conductivity and permittivity as a function of length, width and depth and the problem becomes much more complicated.

Your measurements, in your location, with your installation indicate, to me, that your 8 radial solution is starting to converge to best solution. I say this for two reasons. Your 2:1 VSWR bandwidth is narrow and your Z is approaching 73 ohms.

I would use the eight radial solution and trim the antenna length to your desired center frequency. Remember, a 2:1 VSWR indicates that 90% of your energy is going into the antenna.

For the best analysis of your installation, the soil characteristics would have to be known and controlled for several wavelengths square and approximately 1/4 wavelength deep. Your radials [counterpoise] are simplifying and stabilizing your solution.

Roy Llewellen is much better qualified than I to proceed deeper into the EM Physics regarding all the possible interactions. If the science of what's happening is your interest then contact Roy off-line [Roy, sorry to volunteer you without your consent]. If a brief understanding of possible contributing EM effects is your desire, then I hope this contributes to your understanding.

Ham Op

hasan schiers wrote:

> Question: Where was I taking my measurements.
>
> I started out at the actual feedpoint...then put in about 55' of LMR-400,
> and started a new set of measurements in the shack. Here is the latest data:
>
> Radials 2:1 Fo 2:1 BW Z VSWR @ Fo
> 0 3340 3522 3920 580 36,0 1.3
> 2 3354 3524 3774 420 45,0 1.0
> 4 3419 3533 3741 322 60,1 1.2
> 8 3445 3550 3742 297 65,4 1.3
>

> The formatting is bad, but in order, left to right:
>
> Number of Radials
> Lower 2:1 vswr point
> Resonant Freq point
> Upper 2:1 point
> Bandwidth in kilohertz
> Impedance as shown on the MFJ 269 at resonance.
>
> I'm a bit confused by the rising feedpoint impedance with increasing number
> of radials. That seems backwards to me.
>
> 73,
>
> ...hasan, N0AN
>
> VSWR shown by MFJ 269 at resonance
> "Ham op" <hamop@comcast.net> wrote in message
> news:xMudncOoYMZYDYTeRVn-jw@comcast.com...
>
>>At what point in the system are you making your measurements?
>>
>>hasan schiers wrote:
>>
>>
>>>45' high, 25.8 sloping wire at the top, 29 feet high at the far end. #12
>>>THHN Insulated copper wire, stranded.
>>>
>>>Predicted Radiation Resistance: 25.8 ohms, very good ground (rich
>>>pastoral, midwest).
>>>
>>>With no radials, I get a flat 50 ohm match at 3595 khz. Obviously this
>>>would indicate ground losses of approximately 25 ohms, if I'm thinking
>>>about this right. Also, predicted efficiency would then be 50 %
>>>(25/(25+25), indicating a 3 dB loss. Forgetting about fresnel region
>>>losses, this seems to be better than I had expected. 2:1 vswr bandwidth
>>>is very broad....broader than what I get with EZnec 4.x with a 25 ohm
>>>load in the base.
>>>
>>>This means one of two things to me:
>>>
>>>Either my ground losses are much higher than the 25 ohms I'm indirectly
>>>calculating, or I have made some sort of conceptual error in thinking
>>>about what the implications are of a 25 or 26 ohm feedpoint. All my
>>>references point toward a 25 ohm radiation resistance for my 42' vertical
>>>x 25.8 ft inverted L (with sloping top wire instead of flat top wire).
>>>What is wrong with my logic here? If the R(rad) is 25 ohms, and I measure
>>>a flat VSWR (on two other meters) at 3600 khz, then isn't the remaining
>>>25 ohms, ground loss?
>>>

>>>I also show about 37 ohms resistance and 0 ohms reactance at 3600 khz
>>>with my MFJ-269, which is really confusing, in that if I have 25 ohms for
>>>Rrad, then I have 13 ohms of ground losses. Further, 37 ohms is around
>>>1.3 to 1. So I have two other vswr meters showing 1:1 at 3600, and the
>>>MFJ showing 37 ohms. This is a pretty large percentage difference.
>>>
>>>I would be inclined to believe the 25.8 ohms predicted by both EZnec 4
>>>and the Low Band DX'rs Handbook. In any case, I'll put out 4 radials
>>>tomorrow morning and repeat all my measurements, looking for narrowing
>>>bandwidth and lowered input Z as my ground losses decrease.
>>>
>>>Ultimately, I'm going to put down 16, 66' radials, in steps of four,
>>>taking measurements of input Z (mfj-269) and vswr bandwidth for 2:1, at
>>>0,4,8 and 16 radials. I'll report what happens as I go along.
>>>
>>>Anywho, without any radials at all there are quite a few distant signals
>>>on 80m this evening, that are consistently louder on the newly installed
>>>inverted L, than on my Carolina Windom at 45'. Most signals as one pans
>>>the band, are louder (at 2 hours after sunset) on the C. Windom than on
>>>the radial-less inverted L, but ones from several states away are equal
>>>or better on the radial-less inverted L. Both seem to make good sense at
>>>this point. I sure will be interested to see the effects of 4 and then 8
>>>and on up radials, but that is going to take a few days, because I don't
>>>want to make radial changes unless I have access to low angle signals,
>>>which only happens at night or just before sunrise.
>>>
>>>Tomorrow is radial day. I will be laying out 4 radials 65' long to begin
>>>with. I have resistance and reactance measurements every 50 khz as a
>>>baseline, before installing radials. 4 in the early morning, 4 more just
>>>before sunset, then 4 more the next morning, and the final 4 the next
>>>evening. #14 THHN stranded insulated copper wire for the radials, btw.
>>>
>>>Depending on what I end up seeing for "effect" I'll go to 24 or 32
>>>radials by winter....but only if the improvement is both measurable and
>>>"observable on the air"...radials are a pain in the rear (or more
>>>accurately, the knees) to put in.
>>>
>>>What fun!
>>>
>>>...hasan, N0AN
>>
>
>

124. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 16:22:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfcijt$fd0$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71121

> I'm a bit confused by the rising feedpoint impedance with increasing
number
> of radials. That seems backwards to me.
>
==========

SWR increases the further the impedance, either HIGHER or LOWER,
departs from 50 ohms.

The only way to measure antenna input impedance is by means of an
impedance bridge. Try one of the small antenna analysers.

Reg.

125. Eznec magnetic loop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 16:33:45 UTC
From: Dobar Dabar <dobardabarBEZSPAMA@mail.com>
Message-ID: <dfcj7c$54r$1@ss405.t-com.hr>
Source record: 71122

Has anyone Eznec description file for magnetic loop antenna?
Please send it to my mail (remove BEZSPAMA from e-mail address).
I want to simulate this antenna in Eznec software to see 3D pattern. For dipole it is simple but magnetic loop has two loops and capacitor.
Please help. I checked on google and all people talks that they made simulation for this antenna but how they have done it I don't know.
I made two loops in Eznec software and I placed source on small loop and load (capacitor?) on big loop. I can't achieve low SWR. I get some pattern but I think that I missed something.
In real life I made this antenna and she works very good with low SWR :-)
73 de 9A4MN
Nenad Mihajlovic

126. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 16:45:32 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfcjve$hh2$1@news.netins.net>
Source record: 71123

That is exactly what I'm using Reg, and why I"m puzzled. I'm getting rising feedpoint impedance with increasing numbers of radials. The 2:1 bandwidth is getting narrower, as it should, but what accounts for the increasing feedpoint impedance? MFJ-269 antenna analyzer is what generated the table I posted earlier.

Very strange?

...hasan, N0AN
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dfcijt$fd0$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>> I'm a bit confused by the rising feedpoint impedance with increasing
> number
>> of radials. That seems backwards to me.
>>
> ============================
>
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> departs from 50 ohms.
>
> The only way to measure antenna input impedance is by means of an
> impedance bridge. Try one of the small antenna analysers.
> ----
> Reg.
>
>

127. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 16:46:54 UTC
From: richardharrison@webtv.net
Message-ID: <5141-4319D37E-525@storefull-3253.bay.webtv.net>
Source record: 71124

Fedthecat wrote:
"I still get no AM."

A typical telescopic automobile antenna presents an impedance of about 5185 ohms at 1MHz because it appears as a 50 picofarad capacitor according to the "Radiotron Designer`s Handbook".

This is about a 100 to 1 mismatch to 50-ohm cable.

The The coax used with car radios for the AM broadcast reception has a tiny-diameter center conductor and a large diameter outer conductor for a high-impedance Zo so as not to lose the signal to mismatch.

There is no magic in the car radio whip beyond its stiffness to hoold its position..

Wavelength at 1 MHz is 300 meters. A resonant 1/4-wave antenna is 75 meters and impractical. Any car antenna s going to be too short, be capacitive, and have a high impedance.

Coax of the 50-ohm or 75-ohm variety is available in long continuous lengths. The right length may alreaady be in place.

A tuned loop receives and reradiates very well. Fedthecat needs two tuned loops, one outside where the signal is, and one inside where the receiver is. A couple of turns should be wound on each loop to make connections to the cable between the loops. A twisted pair could interconnect the loops but may be more susceptible to noise than properly grounded coax.

Connect the two loops, tune them to the desired signal and position both for best reception.

Best regards, Richard Harrison, KB5WZI

128. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 16:59:30 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfckpkilu1@news.netins.net>
Source record: 71125

Interesting observations.

The 2:1 swr points are only being mentioned to show that the bandwidth is narrowing with increasing number of radials. That makes sense.

What doesn't make sense is the increasing feedpoint Z at resonance in response to increasing radial numbers. There could be some minor trimming, but 3 or 4 ohms reactance is probably close enough...the antenna is near resonance and the resistive component is not likely to change much by trimming the last 3 or 4 ohms of reactance out. The problem is, I can't explain the the 65 ohm feedpoint impedance.

Most installations, start with a Z too high (because it includes ground losses), and as radials are added, the feedpoint Z drops (as the loss resistance disappears). This is the classical 1/4w ground mounted vertical case. You know when to stop adding radials when the measured feedpoint impedance at resonance is equal to the Z of the antenna over a "perfect" ground.

Another way to accomplish the same thing is to keep adding radials until the 2:1 vswr bandwidth no longer narrows. I think I'm approaching that right now.

The anomaly I'm trying to deal with is why the feedpoint Z has increased as I went from 0 to 2, to 4, to 8 radials, when it should have decreased. I wouldn't care a whit, if the terminal (end point) feedpoint Z was 65 ohms resistive with no reactive component.

This is a technical element that I want to understand...no further changes are likely to make any real difference in performance. What is it Johnny Cochran said, "If the data don't fit, I just won't quit."? <vbg>

73,

...hasan, N0AN
"Ham op" <hamop@comcast.net> wrote in message
news:p8mdnUPUvc_aWoTeRVn-ug@comcast.com...
> If your antenna is over a PERFECT ground, an EM mirror, then the mutually
> coupled impedance between the antenna and it's image antenna gets to be a
> bit difficult to calculate or estimate. The Apex and it's image are 80
> feet apart. That is 107 degree spacing, and the ends are 77 degrees apart.
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> Change from perfect reflecting ground to 'real' ground with varying
> conductivity and permittivity as a function of length, width and depth and
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> me, that your 8 radial solution is starting to converge to best solution.
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> what's happening is your interest then contact Roy off-line [Roy, sorry to
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> Ham Op
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>> VSWR shown by MFJ 269 at resonance
>> "Ham op" <hamop@comcast.net> wrote in message
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>>>>vertical x 25.8 ft inverted L (with sloping top wire instead of flat top
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>>>>measure a flat VSWR (on two other meters) at 3600 khz, then isn't the
>>>>remaining 25 ohms, ground loss?
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>>>>with my MFJ-269, which is really confusing, in that if I have 25 ohms
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>>>>and the MFJ showing 37 ohms. This is a pretty large percentage
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>>>>and the Low Band DX'rs Handbook. In any case, I'll put out 4 radials
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>>>>bandwidth and lowered input Z as my ground losses decrease.
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>>>>Ultimately, I'm going to put down 16, 66' radials, in steps of four,
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>>>>installed inverted L, than on my Carolina Windom at 45'. Most signals as
>>>>one pans the band, are louder (at 2 hours after sunset) on the C. Windom
>>>>than on the radial-less inverted L, but ones from several states away
>>>>are equal or better on the radial-less inverted L. Both seem to make
>>>>good sense at this point. I sure will be interested to see the effects
>>>>of 4 and then 8 and on up radials, but that is going to take a few days,
>>>>because I don't want to make radial changes unless I have access to low
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>>>>baseline, before installing radials. 4 in the early morning, 4 more just
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>>>>evening. #14 THHN stranded insulated copper wire for the radials, btw.
>>>>
>>>>Depending on what I end up seeing for "effect" I'll go to 24 or 32
>>>>radials by winter....but only if the improvement is both measurable and
>>>>"observable on the air"...radials are a pain in the rear (or more
>>>>accurately, the knees) to put in.
>>>>
>>>>What fun!
>>>>
>>>>...hasan, N0AN
>>>
>>
>>
>

129. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 17:54:47 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11hjornbggsb0f0@corp.supernews.com>
Source record: 71026

I have done this dozens of times inside of steel structures, mainly aircraft hangars.

Forget the boombox. You never WILL get it to work. Go down to the auto salvage yard and get an automobile radio that was made in the last ten years or so. They are intended to be fed with 50 ohm coax of any reasonable length -- I've hung antennas into wingtips that are 50 feet from the radio and fed with RG-174 (the little tiny stuff) and the radio works just fine.

You will need a 12 volt power supply or a battery/battery charger setup for a power source and external speaker(s). Don't forget to buy a motorola plug for the coax going into the car radio antenna jack.

Jim

"Tim Wescott" <tim@seemywebsite.com> wrote in message news:oNidnYoqTfXBXITeRVn-rA@web-ster.com...

> Fedthecat wrote:
>> Bought a small boombox. It has no antenna connection screws, just a
>> built-in antenna. It gets no AM stations at all, just static. I work in
>> a big GM plant (all steel building). Nobodies radios get AM.

130. Re: 4Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 17:57:44 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <31303030383738354319F22861@zetnet.co.uk>
Source record: 70981

> Dave, take a look at this forum:

> http://www.70mhz.org/

> Ian, G3NRW

Ian many thanks for your pointer. Cheers Dave.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

131. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 19:25:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfctbt$cu6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71027

Hasan,

I think you are measuring the input impedance of an Inverted-L against a system of ground radials.

You are trying to estimate the input resistance of the ground radials by subtracting the CALCULATED radiation resistance of the Inverted-L from the measured antenna input resistance.

Excellent, there is no better way of doing it!

First of all, the overall length of the antenna must be 1/4-wavelength resonant at the testing frequency such that its input impedance is PURELY RESISTIVE. The measured input resistance, of course, will be greater than the calculated radiation resistance referred to its base. The difference between them is the required input resistance of the ground radials.

The hard part of the exercise is calculating the radiation resistance referred to the base of the Inverted-L. The radiation resistance is a very complicated function of the dimensions, overall length and height, of the antenna.

However, for the purposes of estimating ground loss resistance, (it changes with rainfall and temperature of the season), the following approximation for radiation resistance is good enough.

RadRes = 18 * (1 - Cos(Theta)) ohms,

where Theta is an angle = 180 * H / (H + L) / Lambda degrees,

H = height of vertical portion of Inverted-L,
L = length of horizontal portion of Inverted-L
and Lambda is the free-space wavelength.

This formula applies ONLY when L+H is 1/4-wave resonant. Which is the condition under which you are working if you are doing the job correctly.

You will not find the formula in the books of bible-writer Terman. Nor in any of the works of the other regular gurus. If you ask from where it came from, it came from one of my old notebooks and I worked it out for myself, years back.

Bear in mind it is only an approximation. It would take 6 months to work out how precisely accurate it is and I don't have the time. But it's as least as accurate as you can make impedance measurements. I do hope I have copied it out correctly.

By the way, as the number of your radials increases and the ground loss resistance gets very low, don't be surprised if you calculate negative values of ground loss resistance.

Reg, G4FGQ

132. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 19:40:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hjv1clrgvsn11@corp.supernews.com>
Source record: 71028

I think your main problem is that the boom box antenna isn't connected to the AM part of its radio at all. The whip antenna is probably used only for FM. For AM, the boom box likely has an internal ferrite rod antenna. Some of the other people on this newsgroup should be better able than I am to suggest ways of coupling to it with your external antenna. It might or might not be successful.

The best solution is to get an auto radio, which is designed to use a short external whip antenna on AM. You'll need a speaker and a 12 volt power supply to go with it.

If you're going to use coaxial cable to connect to the antenna, you should put the antenna as close to the building as possible (to keep the coax short), and use the special coax which is used with automobile radios. The location of the antenna isn't very important, as long as it's outside the building.

Roy Lewallen, W7EL

Fedthecat wrote:
> Bought a small boombox. It has no antenna connection screws, just a
> built-in antenna. It gets no AM stations at all, just static. I work in
> a big GM plant (all steel building). Nobodies radios get AM.
>
> I mounted a car antenna on a bracket (isolated from the bracket with a
> rubber gromet) and mounted the bracket to a chain link fence 20ft from
> the plant. I hooked a coax center wire to the antenna base. I clamped
> the braided wire to the bracket. At the other end, inside the plant, I
> connected the center wire to the built-in antenna on the radio via an
> alligator clip. I still get no AM. I haven't hooked the braided wire to
> anything because I have no terminals on the radio. Do I hook it to any
> ground, such as an eletrical conduit or can I hook it to the radios
> battery ground terminals(I am not using the battery terminals because I
> am plugged into an outlet)? Am I far enough from the building? Do I
> need to be above the building? Is there a limit to how long my coax can
> be? Any advice is more than I currently have. Thanks...
>

133. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 20:10:20 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11hk0p2lda6iuc8@corp.supernews.com>
Source record: 71029

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11hjv1clrgvsn11@corp.supernews.com...
>I think your main problem is that the boom box antenna isn't connected to
>the AM part of its radio at all. The whip antenna is probably used only for
>FM. For AM, the boom box likely has an internal ferrite rod antenna. Some
>of the other people on this newsgroup should be better able than I am to
>suggest ways of coupling to it with your external antenna. It might or
>might not be successful.
>
> The best solution is to get an auto radio, which is designed to use a
> short external whip antenna on AM. You'll need a speaker and a 12 volt
> power supply to go with it.
>
> If you're going to use coaxial cable to connect to the antenna, you should
> put the antenna as close to the building as possible (to keep the coax
> short), and use the special coax which is used with automobile radios. The
> location of the antenna isn't very important, as long as it's outside the
> building.
>
> Roy Lewallen, W7EL
>
I've seen the coiled "antenna augmenters" used for fringe are reception.
Never bought one or tried one. When I recently tried a small boom box in my
new metal shop I had nearly no AM reception. Remembering those fringe area
antenna coils I wound a coil about 8 inches in diam. from 50' approx. of 14
ga. insulated wire and laid the coiled portion on top of the radio and hung
a few feet of the wire out the shop window. Didn't turn it into a miracle
radio, but stations barely hearable came up to the listenable level. I
wonder if a much longer coil (coil with a lot more wire in it) and a longer
tail hung out the window would raise my reception to an even better level.

Harold Burton

134. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 21:42:37 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfd5cesgk1@news.netins.net>
Source record: 71030

I'm calculating as we speak, thanks tip, I'll see if the numbers line up. Also, I'm going out to the feedpoint to do some measurements as the 55' of coax is transforming the impedance at the feedpoint. Gotta beat the misquitoes, the come in swarms at local sunset. 73

...hasan, N0AN

45 high by 25.8 feet are the antenna dimensions.
BTW is lambda in meters (free space wavelength)? I got something on the order of 11.28 ohms, but that was with a new calculator that I'm not sure of the precedence of operations in. Very fancy, but completely backwards from all the other calcs I had previously owned. No wonder it was cheap.
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dfctbt$cu6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Hasan,
>
> I think you are measuring the input impedance of an Inverted-L against
> a system of ground radials.
>
> You are trying to estimate the input resistance of the ground radials
> by subtracting the CALCULATED radiation resistance of the Inverted-L
> from the measured antenna input resistance.
>
> Excellent, there is no better way of doing it!
>
> First of all, the overall length of the antenna must be 1/4-wavelength
> resonant at the testing frequency such that its input impedance is
> PURELY RESISTIVE. The measured input resistance, of course, will be
> greater than the calculated radiation resistance referred to its base.
> The difference between them is the required input resistance of the
> ground radials.
>
> The hard part of the exercise is calculating the radiation resistance
> referred to the base of the Inverted-L. The radiation resistance is a
> very complicated function of the dimensions, overall length and
> height, of the antenna.
>
> However, for the purposes of estimating ground loss resistance, (it
> changes with rainfall and temperature of the season), the following
> approximation for radiation resistance is good enough.
>
> RadRes = 18 * (1 - Cos(Theta)) ohms,
>
> where Theta is an angle = 180 * H / (H + L) / Lambda degrees,
>

> H = height of vertical portion of Inverted-L,
> L = length of horizontal portion of Inverted-L
> and Lambda is the free-space wavelength.
>
> This formula applies ONLY when L+H is 1/4-wave resonant. Which is the
> condition under which you are working if you are doing the job
> correctly.
>
> You will not find the formula in the books of bible-writer Terman.
> Nor in any of the works of the other regular gurus. If you ask from
> where it came from, it came from one of my old notebooks and I worked
> it out for myself, years back.
>
> Bear in mind it is only an approximation. It would take 6 months to
> work out how precisely accurate it is and I don't have the time. But
> it's as least as accurate as you can make impedance measurements. I
> do hope I have copied it out correctly.
>
> By the way, as the number of your radials increases and the ground
> loss resistance gets very low, don't be surprised if you calculate
> negative values of ground loss resistance.
> ----
> Reg, G4FGQ
>
>

135. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 22:17:59 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o48kh1dj77grpa8281fv9c68tvvi1dosdh@4ax.com>
Source record: 71031

On Sat, 3 Sep 2005 09:27:52 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>Question: Where was I taking my measurements.
>
>I started out at the actual feedpoint...then put in about 55' of LMR-400,
>and started a new set of measurements in the shack. Here is the latest data:
>

>Radials 2:1 Fo 2:1 BW Z VSWR @ Fo

Hassan,

Where are the radials (above ground, buried, how far)?

I think you told us that they radial wire is insulated, is that
correct?

Why did you choose 66' long radials?

Owen
--

136. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 22:55:17 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfd9km$u7k$1@news.netins.net>
Source record: 71032

Owen,

Wire is laying on the ground, insulated, as it doesn't make any difference and lasts longer. 66' is 1/4 wave at 80m which is always a safe starting point. I probably could shorten them and do more. I intend to put in at least 8 more for a total of 16.

I found out why the input Z was going up as I put more radials in...I was measuring at the end of 55' of LMR-400 (as opposed to the measurements I took when I was outside originally tuning the antenna.), and that was acting as a 1/4 wave transformer.

I just went outside and connected through an 18 inch jumper to the MFJ-269 and got the following measurements:

2:1 VSWR Low freq Point: 3460 khz
2:1 VSWR Hi freq Point: 3801 khz
2:1 VSWR Bandwidth: 341 khz
Fo (Resonant freq) = 3560 khz, 40 ohms resistive, 0 ohms reactance

3500 32,9 1.6
3550 38,0 1.0
3600 44,9 1.2
3650 52,19 1.4
3700 57,30 1.6
3750 63,35 1.8
3800 69,39 2.0

Above table: freq, R,+/- j, VSWR, all taken from the MFJ-269

If the radiation resistance is 26 ohms and I measure 38 ohms feed impedance at resonance, then apparently I have 12 ohms of ground loss, for an efficiency of:

26/(26+12) or 26/38 = 68%

At least, that's where I'm at for the moment. Time for another 8 radials.

That 1/4 wave transformer (55' of LMR-400 between feedpoint and shack) that Tom, W8JI, pointed out, makes a big difference in my confusion...at least it all makes sense now.

73,

...hasan, N0AN
"Owen Duffy" <owen@no.where> wrote in message
news:o48kh1dj77grpa8281fv9c68tvvi1dosdh@4ax.com...
> On Sat, 3 Sep 2005 09:27:52 -0500, "hasan schiers"

> <schiers@netins.net> wrote:
>
>>Question: Where was I taking my measurements.
>>
>>I started out at the actual feedpoint...then put in about 55' of LMR-400,
>>and started a new set of measurements in the shack. Here is the latest
>>data:
>>
>
>>Radials 2:1 Fo 2:1 BW Z VSWR @ Fo
>
> Hassan,
>
> Where are the radials (above ground, buried, how far)?
>
> I think you told us that they radial wire is insulated, is that
> correct?
>
> Why did you choose 66' long radials?
>
> Owen
> --

137. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 23:02:59 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfda34ust1@news.netins.net>
Source record: 71033

Reg, et al, yes, you have what I'm doing correctly. I just went out to the feedpoint and made measurements. Here's what I found. (I'm still waiting for clarification on your formula, btw)

I found out why the input Z was going up as I put more radials in...I was measuring at the end of 55' of LMR-400 (as opposed to the measurements I took when I was outside originally tuning the antenna.), and that was acting as a 1/4 wave transformer.

I just went outside and connected through an 18 inch jumper to the MFJ-269 and got the following measurements:

2:1 VSWR Low freq Point: 3460 khz
2:1 VSWR Hi freq Point: 3801 khz
2:1 VSWR Bandwidth: 341 khz
Fo (Resonant freq) = 3560 khz, 40 ohms resistive, 0 ohms reactance

3500 32,9 1.6
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3650 52,19 1.4
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3750 63,35 1.8
3800 69,39 2.0

Above table: freq, R,+/- j, VSWR, all taken from the MFJ-269

If the radiation resistance is 26 ohms and I measure 38 ohms feed impedance at resonance, then apparently I have 12 ohms of ground loss, for an efficiency of:

26/(26+12) or 26/38 = 68%

At least, that's where I'm at for the moment. Time for another 8 radials.

That 1/4 wave transformer (55' of LMR-400 between feedpoint and shack) that Tom, W8JI, pointed out, makes a big difference in my confusion...at least it all makes sense now.

73,

...hasan, N0AN
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dfctbt$cu6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Hasan,
>
> I think you are measuring the input impedance of an Inverted-L against
> a system of ground radials.

>
> You are trying to estimate the input resistance of the ground radials
> by subtracting the CALCULATED radiation resistance of the Inverted-L
> from the measured antenna input resistance.
>
> Excellent, there is no better way of doing it!
>
> First of all, the overall length of the antenna must be 1/4-wavelength
> resonant at the testing frequency such that its input impedance is
> PURELY RESISTIVE. The measured input resistance, of course, will be
> greater than the calculated radiation resistance referred to its base.
> The difference between them is the required input resistance of the
> ground radials.
>
> The hard part of the exercise is calculating the radiation resistance
> referred to the base of the Inverted-L. The radiation resistance is a
> very complicated function of the dimensions, overall length and
> height, of the antenna.
>
> However, for the purposes of estimating ground loss resistance, (it
> changes with rainfall and temperature of the season), the following
> approximation for radiation resistance is good enough.
>
> RadRes = 18 * (1 - Cos(Theta)) ohms,
>
> where Theta is an angle = 180 * H / (H + L) / Lambda degrees,
>
> H = height of vertical portion of Inverted-L,
> L = length of horizontal portion of Inverted-L
> and Lambda is the free-space wavelength.
>
> This formula applies ONLY when L+H is 1/4-wave resonant. Which is the
> condition under which you are working if you are doing the job
> correctly.
>
> You will not find the formula in the books of bible-writer Terman.
> Nor in any of the works of the other regular gurus. If you ask from
> where it came from, it came from one of my old notebooks and I worked
> it out for myself, years back.
>
> Bear in mind it is only an approximation. It would take 6 months to
> work out how precisely accurate it is and I don't have the time. But
> it's as least as accurate as you can make impedance measurements. I
> do hope I have copied it out correctly.
>
> By the way, as the number of your radials increases and the ground
> loss resistance gets very low, don't be surprised if you calculate
> negative values of ground loss resistance.
> ----
> Reg, G4FGQ

>
>

138. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 23:20:25 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <rbqSe.12308$ZL4.1428@bignews4.bellsouth.net>
Source record: 71034

AHA! - so YOU'RE the one foolin' around with that radio when you oughta be working.
You can listen to radio on your way home. Get back to work or you're fired.
:-)

139. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-03 23:49:14 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <gadkh1hnirblji3946lqrd4to0mmd23a7c@4ax.com>
Source record: 71035

On Sat, 3 Sep 2005 09:27:52 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>Question: Where was I taking my measurements.
>
>I started out at the actual feedpoint...then put in about 55' of LMR-400,
>and started a new set of measurements in the shack. Here is the latest data:
>
>Radials 2:1 Fo 2:1 BW Z VSWR @ Fo
>0 3340 3522 3920 580 36,0 1.3

Ok, you have figured out the coax transforms the impedance. If indeed
the Z at the generator end of the coax was 36+j0 (ie it was resonant
at that point), then I make the load Z ~ 62-j5.

This will confuse your efforts to infer an effective ground system
impedance, and losses.

Another point to consider, instruments like you are using (in my
experience) are more accurate near to 50+j0, and you may get better
results by bulking up the feedpoint Z with a known fixed resistor to
exploit the better measurement accuracy around 50+j0.

Owen
--

140. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 00:04:11 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <7dednWbNgJr1p4feRVn-2g@comcast.com>
Source record: 71036

Hal Rosser wrote:
> AHA! - so YOU'RE the one foolin' around with that radio when you oughta be
> working.
> You can listen to radio on your way home. Get back to work or you're fired.
> :-)
>
>

WHAT !!!! I thought I got paid for doing my hobby!!!

What a lousy place to work!!

I want a raise.

141. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 00:12:00 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1sekh1lu557d2vqsmg50u1skfp3aplkj5g@4ax.com>
Source record: 71037

On Sat, 03 Sep 2005 23:49:14 GMT, Owen Duffy <owen@no.where> wrote:

>Ok, you have figured out the coax transforms the impedance. If indeed
>the Z at the generator end of the coax was 36+j0 (ie it was resonant
>at that point), then I make the load Z ~ 62-j5.

Sorry that should have been 69-j7 (above calc was for one of your
other figures, 40+j0).

Owen
--

142. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 00:51:30 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <4ifkh152k1vbcftf3roicm2g5ktrsq974e@4ax.com>
Source record: 71038

On Sat, 3 Sep 2005 09:50:43 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>I do have correlation now. The vswr meters and the mfj all read the same
>resonant frequency now, Wes. See my post that shows the data for 0,2,4,8
>radials. While a given absolute value might be in error (a certainty due to
>inexpensive instruments), the trend is sound for bandwidth, but a bit
>strange for feedpoint impedance. (BW is narrowing but input Z is going up,
>with increasing numbers of radials.)
>
>Ideas?

Well, I think that you're expecting the thing to behave just like a
monopole but it's not a monopole.

When I model your configuration (except for insulation) I get a
resonant freq of 3.573 MHz and R = 23.3 ohm over a Mininec Pastoral
ground.

Making it a full height monopole it must be 67' high and the feedpoint
R = 37.

I believe that I read elsewhere that you are taking data at the input
end of a coax line. Unless you have characterized the line and are
backing out its effects you are going to remain mystified.

Also it you have any other antennas in the area that can be an issue.

I'm a believer in modeling but unless -everything- is accounted for,
reality and the model won't correlate.

For example, I have a Cushcraft AV-80 vertical that I've used as a
test bed. This is a 2" diameter, 36' high pipe with four 3' top hat
wires. Cushcraft supplied a base-loading coil, which is not used.
The antenna is ground-mounted on a 16" square aluminum plate with
sixteen 50' radials. Installing radials at this location is a
"sticky" proposition and the soil is best characterized as sand
(decomposed granite actually).

I have measured the base impedance with both an HP8405 Vector
Voltmeter and coax bridge that was calibrated with an open-short-load
(OSL) method as well as a much faster N2PK vector network analyzer,
calibrated the same way. All measurements were taken at the base of
the antenna. This is an on again off again project (currently off)
with the goal of determining the effectiveness of the radial field.

The data are very repeatable and believed to be correct; however, I cannot construct a model that replicates the physical antenna. For example the curve on the Smith chart of the measured data has a little bump in it and the resonant frequency is slightly off from the model. The "bump" isn't a full-blown resonance loop, but it looks like it's trying. Here is a plot from 1.5 to 15 MHz. The resonant freq is 5.5 MHz.

http://users.triconet.org/wesandlinda/Vertical_Z.gif

As you can see from the photo, there several other "verticals" in the vicinity as well as my 45' foot tower with beam and wire dipoles 90' away.

http://users.triconet.org/wesandlinda/Vertical_4.jpg

143. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 01:21:58 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <W_rSe.9139$cy4.134@trnddc05>
Source record: 71039

"Fedthecat" <Fedthecat@aol.com> wrote in message
news:1125736373.469540.275780@g14g2000cwa.googlegroups.com...
> Bought a small boombox. It has no antenna connection screws, just a
> built-in antenna. It gets no AM stations at all, just static. I work in
> a big GM plant (all steel building). Nobodies radios get AM.
>
> I mounted a car antenna on a bracket (isolated from the bracket with a
> rubber gromet) and mounted the bracket to a chain link fence 20ft from
> the plant. I hooked a coax center wire to the antenna base. I clamped
> the braided wire to the bracket. At the other end, inside the plant, I
> connected the center wire to the built-in antenna on the radio via an
> alligator clip. I still get no AM. I haven't hooked the braided wire to
> anything because I have no terminals on the radio. Do I hook it to any
> ground, such as an eletrical conduit or can I hook it to the radios
> battery ground terminals(I am not using the battery terminals because I
> am plugged into an outlet)? Am I far enough from the building? Do I
> need to be above the building? Is there a limit to how long my coax can
> be? Any advice is more than I currently have. Thanks...

Fedthecat

Some things you might want to consider are:
The thing we refer to as antennas on cars arent as much antennas as they
are probes of the currents flowing on the body of the car.
The coax between the "car antenna" and the radio is a capacitor to ground
that shunts the signal at the receiver input. Car antenna designers keep
the length of the feed line as short as possible and make it's capacity as
low as practical, which coincidently is the highest characteristic impedance

VW (and probably alot of others) have been installing amplifiers at the
base of the "car antenna" so the coax cable capacity is not a problem.

There are alot of web sites that discuss how to build an AM loop antenna
and how it can be coupled to the boombox. The loops work without the
amplifier.

Jerry

144. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 01:39:02 UTC
From: amdxjunk <nojunk@knology>
Message-ID: <499f9$431a5036$18d6b479$18711@KNOLOGY.NET>
Source record: 71040

You need to open up the boombox, locate the ferrite rod and wrap 3 or 4
turns of insulated wire around it. Run the insulated wire to a connector you
mount on your radio. It could be a bnc or an "F" connector.
Install the mating connector on your coax to plug into your radio. Now
outside the plant you can try the auto antenna, but I think a piece of wire
15ft to 50 ft ran along the fence, connected to the center conductor, with
braid
grounded.
Mike K.
P.S. Been there, done this.

"Fedthecat" <Fedthecat@aol.com> wrote in message
news:1125736373.469540.275780@g14g2000cwa.googlegroups.com...
> Bought a small boombox. It has no antenna connection screws, just a
> built-in antenna. It gets no AM stations at all, just static. I work in
> a big GM plant (all steel building). Nobodies radios get AM.
>
> I mounted a car antenna on a bracket (isolated from the bracket with a
> rubber gromet) and mounted the bracket to a chain link fence 20ft from
> the plant. I hooked a coax center wire to the antenna base. I clamped
> the braided wire to the bracket. At the other end, inside the plant, I
> connected the center wire to the built-in antenna on the radio via an
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> anything because I have no terminals on the radio. Do I hook it to any
> ground, such as an eletrical conduit or can I hook it to the radios
> battery ground terminals(I am not using the battery terminals because I
> am plugged into an outlet)? Am I far enough from the building? Do I
> need to be above the building? Is there a limit to how long my coax can
> be? Any advice is more than I currently have. Thanks...
>

145. Re: The penis is way too delicate for masturbation

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 02:45:24 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <8dtSe.91972$gB.77591@tornado.ohiordc.rr.com>
Source record: 71041

The difference between a "penis" and a "cock" is this:
A "penis" is an anatomical member that is used for urination and
procreation.
A "cock" is a hot rod that is used for pissing and fucking, not necessarily
in that order of importance.

Wayne-
(KC8UIO)
"Hazel" <none@nospam.ir> wrote in message
news:rivRe.7831$2F1.489341@news20.bellglobal.com...
> dgr1400@hotmail.com wrote:
>
>> .
> OK, so play with your cock instead.

146. Re: sharing graves

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 02:54:30 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <GltSe.92046$gB.33978@tornado.ohiordc.rr.com>
Source record: 71042

Jeeze...I thought this guy wanted to barrow my French lyrics by Arthur Graves.
"Paul Hinman" <paul.hinman@shaw.ca> wrote in message
news:NFFQe.330061$5V4.212744@pd7tw3no...
I came across an interesting antenna the other day on the web. It called for four radials for each band that one would want to use it on. In order to protect the lawn mower I would like to bury the radials. If I use insulated wires for the radials can I bury multiple radials for different frequencies in the same trench. I would rent a small trencher like they use for underground power and utility feeds, make four trenches and drop in the radials, then cover them.

Thanx for any responses.

Paul VE6LDS

147. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 03:01:21 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <5stSe.92106$gB.58539@tornado.ohiordc.rr.com>
Source record: 71043

Yagi had a friend named Boo-Boo and a girl-friend named Suzy.

<cheian07@yahoo.com> wrote in message
news:1125710467.199345.274220@z14g2000cwz.googlegroups.com...
> greetings,
>
> can someone direct me on the ways driven element of a yagi is attached
> to a boom. can a driven element (folded dipole or ordinary
> dipole)electrically connected to a boom or not? what will be the
> effect? or can i use wood as a boom? can someone also give me some
> formula on yagi design (length, spacing etc)
>
> help would be greatly appreciated.
>
> thanks,
>
> ian
>

148. 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 03:04:48 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <lvokh1hg6dkpggfoocskessd87ekuvmc2i@4ax.com>
Source record: 71044

I want to construct a 80-40-20 meter dipole, but want to trap the 80 meters to shorten the length. Does anyone know where I can get good quality traps? I am a beginner as far as antenna theory.

Vinnie S.

149. Alternate Plan

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 03:13:44 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <IDtSe.92209$gB.58610@tornado.ohiordc.rr.com>
Source record: 71045

Run a LONG extension cord just outside your office window. Plug in the radio and put an umbrella over it. Turn it on and tune in your favorite AM broadcast. Turn the volume up to maximum. Go back inside. Find a suitable drinking glass and place it on the wall (open side toward the wall), just opposite the radio you've just installed outside. Place your ear on the other end of the glass...Enjoy. If your boss asks you, "What the flock you are doing?"...just tell him that you are following advice you got from rec.radio.amateur.antenna.

If this sounds like to much trouble, just get to used to FM broadcast.

"Fedthecat" <Fedthecat@aol.com> wrote in message news:1125736373.469540.275780@g14g2000cwa.googlegroups.com...
> Bought a small boombox. It has no antenna connection screws, just a
> built-in antenna. It gets no AM stations at all, just static. I work in
> a big GM plant (all steel building). Nobodies radios get AM.
>
> I mounted a car antenna on a bracket (isolated from the bracket with a
> rubber gromet) and mounted the bracket to a chain link fence 20ft from
> the plant. I hooked a coax center wire to the antenna base. I clamped
> the braided wire to the bracket. At the other end, inside the plant, I
> connected the center wire to the built-in antenna on the radio via an
> alligator clip. I still get no AM. I haven't hooked the braided wire to
> anything because I have no terminals on the radio. Do I hook it to any
> ground, such as an eletrical conduit or can I hook it to the radios
> battery ground terminals(I am not using the battery terminals because I
> am plugged into an outlet)? Am I far enough from the building? Do I
> need to be above the building? Is there a limit to how long my coax can
> be? Any advice is more than I currently have. Thanks...
>

150. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 04:02:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfdrk7$t0h$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71046

"hasan schiers" wrote (I'm still waiting for
> clarification on your formula, btw)
>
==========

There's a mistake in the formula. I copied it incorrectly from my old notebook.

The wavelength Lambda doesn't come into it. No wonder you asked what units Lambda is in.

The correct, more simple, formula is -

RadRes = 18 * (1 - Cos(180 * H / (H + L)) ohms,

Where H = Height, L = Length of horizontal section, and the angle is in degrees.

Your antenna is 45 feet high and 70.8 feet overall length. (It doesn't matter what the measurement units are. It's just a ratio.)

And so your radiation resistance, at 1/4-wave resonance, is 25.4 ohms, give or take a few ohms.

The only thing I'm unhappy about is making impedance measurements at the other end of 55 feet of coax. You need to know the exact Zo and velocity factor and length of this cable, plus some accurate calculations. The technique is fraught with error.

Get your hand-held antenna analyser right to the bottom end of the antenna wire, on the R + jX range, and immediately adjacent to the focal point of the radials. And hope you don't get interference from the local, high power, MF broadcast station. But you are already aware of this and I mention it for the benefit of the lurkers.

I assume you measure SWR only to estimate antenna bandwidth. At the other end of 55 feet of coax anything can happen to SWR. But if bandwidth decreases as the number of radials increases then at least it is going in the right direction. I don't think you will squeeze any other information out of it.

Reg, G4FGQ

151. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 05:35:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfe13t$md3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71047

Hasan,

If you download program ENDFEED and insert details of your antenna and ground radials system, you will find the impedances closely agee with what you actually get. (I'm always very happy when this happens.)

Enter the exact 80-meter band frequency at which you have found your own antenna to be 1/4-wave resonant. Then slightly prune antenna height until the program says the antenna is 1/4-wavelength long. Very likely your antenna horizontal section is sloping.

As a final check, do with the program what you have done with your own antenna, and subtract the RF ground resistance from the antenna input resistance to give the radiation resistance. (The radiation resistance is not displayed by the program although, obviously, it is used internally.)

The primary purpose of the program is to calculate the L and C values of three different impedance-matching networks (tuners), which you may find useful. Radiating efficiency is also calculated and displayed.

Download ENDFEED, an old program of mine, from website below.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

152. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 11:14:15 UTC
From: Dave <noone@nowhere.com>
Message-ID: <d62dnRdkkqKYSofeRVn-oA@crocker.com>
Source record: 71048

for an 80-40-20 dipole you don't need 'traps' to shorten the 80m piece you need 'loading coils'. 'traps' have a resonance that effectively cuts off the section of the wire past them making the inner part resonant on the higher frequency, so you need 'traps' for 20m and 40m. 'loading coils' are simply an inductance that makes the section appear longer than it physically is.

"Vinnie S." <none@coldmail.com> wrote in message news:lvokh1hg6dkpggfoocskessd87ekuvmc2i@4ax.com...
>I want to construct a 80-40-20 meter dipole, but want to trap the 80 meters
>to
> shorten the length. Does anyone know where I can get good quality traps? I
> am a
> beginner as far as antenna theory.
>
> Vinnie S.

153. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 12:05:45 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <A8qdnVXBidCLfofeRVn-pQ@bright.net>
Source record: 71049

Traps will not shorten your antenna appreciably. To shorten an antenna, you use loading coils, which are just wires turned into a coil. Traps consist of a coil and a capacitor in parallel with each other that stop signal flow through them at a specific frequency.

So, if I understand what you want, is that you want the total antenna length to be shorter than a normal half-wave dipole on 80M. The best place to find the info you seek is in the ARRL Antenna Handbook. They should be available at http://www.arrl.org/

You will first need to determine what length you want the antenna for 80M to be. Then, you will want to look in the chart in the book. You will want to place the coils as far out from the center of the antenna as practical. The further out the loading coils are from center, the larger amount of inductance they need to be to a point where it is impractical to build them. Usually putting them at the 50% point is fairly easy but, if you are going to have a 40M trap in the antenna, these would be right about where the loading coils would go, so, just move the loading coils outward from center, just a few feet past the 40M traps. You will most likely have to adjust the wire lengths from the loading coils out to the ends of the antenna to find resonance.

Scott
N0EDV

Vinnie S. wrote:

> I want to construct a 80-40-20 meter dipole, but want to trap the 80 meters to
> shorten the length. Does anyone know where I can get good quality traps? I am a
> beginner as far as antenna theory.
>
> Vinnie S.

154. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 12:07:17 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <Y8ednaNqFOxnfofeRVn-gg@comcast.com>
Source record: 71050

He wants multi band operation. Therefore he needs traps to provide the
necessary isolation for 40 and 20 meters.

Dave wrote:

> for an 80-40-20 dipole you don't need 'traps' to shorten the 80m piece you
> need 'loading coils'. 'traps' have a resonance that effectively cuts off
> the section of the wire past them making the inner part resonant on the
> higher frequency, so you need 'traps' for 20m and 40m. 'loading coils' are
> simply an inductance that makes the section appear longer than it physically
> is.
>
> "Vinnie S." <none@coldmail.com> wrote in message
> news:lvokh1hg6dkpggfoocskessd87ekuvmc2i@4ax.com...
>
>>I want to construct a 80-40-20 meter dipole, but want to trap the 80 meters
>>to
>>shorten the length. Does anyone know where I can get good quality traps? I
>>am a
>>beginner as far as antenna theory.
>>
>>Vinnie S.
>
>
>

155. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 12:18:40 UTC
From: Dave <noone@nowhere.com>
Message-ID: <NrGdnYu6m9aDe4feRVn-uQ@crocker.com>
Source record: 71051

that is what i said, but in regards to 'shorten the length' of the 80m part
it is a loading coil he needs.

"Ham op" <hamop@comcast.net> wrote in message
news:Y8ednaNqFOxnfofeRVn-gg@comcast.com...
> He wants multi band operation. Therefore he needs traps to provide the
> necessary isolation for 40 and 20 meters.
>
> Dave wrote:
>
>> for an 80-40-20 dipole you don't need 'traps' to shorten the 80m piece
>> you need 'loading coils'. 'traps' have a resonance that effectively cuts
>> off the section of the wire past them making the inner part resonant on
>> the higher frequency, so you need 'traps' for 20m and 40m. 'loading
>> coils' are simply an inductance that makes the section appear longer than
>> it physically is.
>>
>> "Vinnie S." <none@coldmail.com> wrote in message
>> news:lvokh1hg6dkpggfoocskessd87ekuvmc2i@4ax.com...
>>
>>>I want to construct a 80-40-20 meter dipole, but want to trap the 80
>>>meters to
>>>shorten the length. Does anyone know where I can get good quality traps?
>>>I am a
>>>beginner as far as antenna theory.
>>>
>>>Vinnie S.
>>
>>
>>
>

156. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 12:44:21 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfeq6tkpv1@news.netins.net>
Source record: 71052

Outstanding, Reg. Your formula for Rrad agrees completely with the graph in Devoldere's book. I will make a special effort to copy the formula down correctly and put it in the subdirectory of my hard disk that has all your other programs.

I already figured out the 1/4 wave transformer problem, so I went out in measured again directly (18" jumper) the feedpoint impedance and got much more realistic readings.

I recall from reading some of your other posts when people were wringing their hands about what antenna they could put up in a given circumstance. You advised the inverted L in the garden. When I started work on this project (whose goal was a decent DX antenna for 80m), I thought of your comments on many occasions.

As you noted, I'm doing the 2:1 VSWR bandwidth measurements strictly to look for the point of diminishing returns on laying the radial field. It is quite clear at this point that 8 is not quite enough, but 16 should be more than adequate to get me within 1 dB of the idea.

It has been a fun experiment so far, and an enlightening discussion. Thanks so much for your formula and other comments. Most helpful.

...hasan, N0AN
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dfdrk7$t0h$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "hasan schiers" wrote (I'm still waiting for
>> clarification on your formula, btw)
>>
> ==========
>
> There's a mistake in the formula. I copied it incorrectly from my old
> notebook.
>
> The wavelength Lambda doesn't come into it. No wonder you asked what
> units Lambda is in.
>
> The correct, more simple, formula is -
>
> RadRes = 18 * (1 - Cos(180 * H / (H + L)) ohms,
>
> Where H = Height, L = Length of horizontal section, and the angle is
> in degrees.
>
> Your antenna is 45 feet high and 70.8 feet overall length. (It doesn't

> matter what the measurement units are. It's just a ratio.)
>
> And so your radiation resistance, at 1/4-wave resonance, is 25.4 ohms,
> give or take a few ohms.
>
> The only thing I'm unhappy about is making impedance measurements at
> the other end of 55 feet of coax. You need to know the exact Zo and
> velocity factor and length of this cable, plus some accurate
> calculations. The technique is fraught with error.
>
> Get your hand-held antenna analyser right to the bottom end of the
> antenna wire, on the R + jX range, and immediately adjacent to the
> focal point of the radials. And hope you don't get interference from
> the local, high power, MF broadcast station. But you are already aware
> of this and I mention it for the benefit of the lurkers.
>
> I assume you measure SWR only to estimate antenna bandwidth. At the
> other end of 55 feet of coax anything can happen to SWR. But if
> bandwidth decreases as the number of radials increases then at least
> it is going in the right direction. I don't think you will squeeze any
> other information out of it.
> ----
> Reg, G4FGQ
>
>

157. Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 12:56:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfeqte$rs9$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71053

I post the following as a copy of a reply I made to the uk.amateur radio newsgroup.

==========

> I am considering the using some army surplus aluminium alloy poles as
> part of the rf ground for an inverted L antenna. They are thick walled
> 4ft tubes able to withstand stand being driven into the ground, and are
> lying around waiting to be used for something.
> The issues which come to mind are corrosion through contact with the
> earth and electrolytic reaction where a copper cable is attatched with
> steel bolt and eylet connector.
> Has anyone on here tried this?
>
> John
> m1jta

==========

John,
I have used 3 or 4 feet alumininium alloy tubes as earth rods, on and off, for many years. I have found them just the same as any other or metals - ie., no bloody good.

Electrically, at HF, a 3 or 4-feet earth rod is no better than a single, thin, radial, shallow-buried, horizontal wire of the same length which is much easier to install.

The resistance to ground has nothing whatsoever to do with the conductivity of the metal or surface corrosion products. It has everything to do with the resistivity of the soil in which the rod is embedded. ie., the soil in the immediate vicinity of the rod.

Resistance to ground depends almost entirely on rod length and is only very slightly dependent on rod diameter.

Only old wives believe resistance is related to surface area of the rod or electrode and dig great holes in their back gardens to bury unwanted, scrap, hot-water cylinders. They would do better by approaching their local scrap metal merchant.

A 3 or 4 feet rod in typical garden soil has a resistance to ground of the order of 100 to 200 ohms and by itself is useless.

To locate one rod immediately next to another does next to nothing regarding ground connection resistance. A pair of rods must be spaced apart by at least twice their length before the resulting ground resistance approaches half the resistance of one rod.

A collection of a number of rods must be spaced apart by many times greater than their depth of burial to obtain the full benefit of all being connected in parallel.

Consequently, the connecting wires from rods to a focal point themselves constitute a good system of shallow-buried radials and the short rods at the ends of the radial wires can be dispensed with. Exactly the same result can be achieved just by extending the radials by another, insignificant 3 feet. The rods are both wasted effort and wasted copper (or aluminium).

Reg, G4FGQ

158. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 13:25:22 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfesjt$n1q$1@news.netins.net>
Source record: 71054

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dfdrk7$t0h$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...

"I assume you measure SWR only to estimate antenna bandwidth. At the other end of 55 feet of coax anything can happen to SWR. But if bandwidth decreases as the number of radials increases then at least it is going in the right direction. I don't think you will squeeze any other information out of it."

Boy, Reg, that last sentence describes EXACTLY what I have been attempting to do, squeeze the last bit of information or inference that I can make of the data collected. Your formula works perfectly for me, giving the same results on this fancy new calculator. It is formula based (which I am not used to), so the data entry is backwards from what I'm used to (RPN). Once I entered your formula into the calculator just as you show it, left to right, it produced the expected 25.4 ohms. That is one handy formula indeed! Who knows the boundary limits for its accuracy, (only the creator would know that), but in the case of my particular antenna, it is right on the money and agrees with the "book" based graph that gave me the original value of 25 ohms for a 0.16 wavelength high quarter wave inverted L. It's nice to have convergence!

...hasan, N0AN

159. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 14:34:44 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <451mh1582gcvee0v37t5lp4e3vv41pm3s5@4ax.com>
Source record: 71055

On Sun, 4 Sep 2005 12:18:40 -0000, "Dave" <noone@nowhere.com> wrote:

>that is what i said, but in regards to 'shorten the length' of the 80m part
>it is a loading coil he needs.

The traps -do- shorten the overall length of the antenna. Because the
80-meter part -is- the total length, I would say the traps shorten it.
In other words, below their resonant frequency they are inductive and
function as loading coils.

160. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 15:16:35 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <0e2mh11ui2hae71l7iaqtrsnq384rc1q8h@4ax.com>
Source record: 71056

On Sat, 3 Sep 2005 20:19:04 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>Yep! A question remains for modelling. Is the value for Source Data in EZnec
>4.x directly correlated to the Rrad? My EZnec model (a modified ARRL
>Inverted L with radials), shows:
>
>Frequency = 3.6 MHz
>
>Source 1 Voltage = 25.65 V. at 4.18 deg.
> Current = 1 A. at 0.0 deg.
> Impedance = 25.58 + J 1.872 ohms
> Power = 25.58 watts
> SWR (50 ohm system) = 1.958 (25 ohm system) = 1.081
>
>Is that 25.58 ohms the same 25 ohms from the graph of Devoldere's book, or
>is it simply a coincidence?

Without looking at the book I would say yes. If you put 1 A into a Z
and 25.65 V @ 4.18 degree develops then that Z = 25.58 +j1.872

>
>I have attached my *.ez file, if it makes it through the usenet group.

It did.

161. Ladder Loc?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 16:55:48 UTC
From: Tony Van <ton-jud-ann@comcast.net>
Message-ID: <Na2dnaZ8LKq-uobeRVn-tw@comcast.com>
Source record: 71057

I'm refurbishing my center-fed zepp antenna. When I
constructed it, I used something called a ladder loc or
ladder lock
which is a plastic strain relief used
at the end of the ladder line to tie it to the radiating
wires.

Any one know if this is still made?

Tks AK1O

162. Re: Ladder Loc?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 17:19:17 UTC
From: pfriedmanNoSpam <p.paulfriedmanNoSpam@comcast.net>
Message-ID: <O76dnYYwnbkPsYbeRVn-sw@comcast.com>
Source record: 71058

"Tony Van" <ton-jud-ann@comcast.net> wrote in message
news:Na2dnaZ8LKq-uobeRVn-tw@comcast.com...
> I'm refurbishing my center-fed zepp antenna. When I
> constructed it, I used something called a ladder loc or ladder lock
> which is a plastic strain relief used
> at the end of the ladder line to tie it to the radiating
> wires.
>
> Any one know if this is still made?
>
> Tks AK1O
>
>

A semi-answer. I don't know if Ladder Lok is still made, but Ten Tec sells a
similar product. Check their web site.

Paul AB0SI

163. Re: Ladder Loc?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 17:41:26 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.swk93cdncdad2j@elbc-crz2m9noal>
Source record: 71059

On Sun, 04 Sep 2005 12:55:48 -0400, Tony Van <ton-jud-ann@comcast.net>
wrote:

> I'm refurbishing my center-fed zepp antenna. When I
> constructed it, I used something called a ladder loc or
> ladder lock
> which is a plastic strain relief used
> at the end of the ladder line to tie it to the radiating
> wires.
>
> Any one know if this is still made?
>
> Tks AK1O
>
>

HI,
The Wireman Still sell the Ladder-Loc. you can see it at
http://thewireman.com/antacc.html

73 Dave KC1DI

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

164. Re: Ladder Loc?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 17:47:50 UTC
From: Dave <noone@nowhere.com>
Message-ID: <1cGdnQXDSJjYrobeRVn-oA@crocker.com>
Source record: 71060

i don't know what ladder loc is, but i am curious what a 'center fed zepp' might be? could that possibly just be a dipole?? classically a 'zepp' antenna was a 1/4 wave wire trailed from a zeppelin airship end-fed with a 1/4 wave feedline that essentially acts as the other half of the dipole.

"Tony Van" <ton-jud-ann@comcast.net> wrote in message news:Na2dnaZ8LKq-uobeRVn-tw@comcast.com...
> I'm refurbishing my center-fed zepp antenna. When I
> constructed it, I used something called a ladder loc or ladder lock
> which is a plastic strain relief used
> at the end of the ladder line to tie it to the radiating
> wires.
>
> Any one know if this is still made?
>
> Tks AK1O
>
>

165. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 18:23:28 UTC
From: fmmck@aol.com
Message-ID: <fmmck-0409051423280001@ac908ac7.ipt.aol.com>
Source record: 71061

In article <lvokh1hg6dkpggfoocskessd87ekuvmc2i@4ax.com>, Vinnie S.
<none@coldmail.com> wrote:

> I want to construct a 80-40-20 meter dipole, but want to trap the 80 meters to
> shorten the length.

Vinnie-

The usual configuration of an 80-40 trap dipole has 40 Meter traps at
about 33 feet from the center. The remaining wire is less than for a full
half wave on 80 Meters since the 40 Meter trap acts as a loading coil on
80. Length may be less if you have 20 Meter traps as well.

If you have enough room for a little over 100 feet, you may not need any
additional loading coils. You also might reduce the total length some by
increasing the inductance-to-capacitance ratio of the traps.

73, Fred, K4DII

166. Re: Alternate Plan

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 18:55:02 UTC
From: Fedthecat <Fedthecat@aol.com>
Message-ID: <1125860102.820828.274830@g14g2000cwa.googlegroups.com>
Source record: 71062

Thanks to all for your advice. I'll try your adeas and see what
happens.
As for people that say 'Get used to FM' when a person is trying to get
AM, why don't they get used to drinking water from a mud puddle? The
reason is that a mud puddle offers none of what they want to quench
their thirst. Why would I want to listen to FM when FM has nothing to
offer except music? If all I wanted was music why would I get FM when a
cd play would get me what I want with no blabbering dj. I requested
info on a way to get AM at work because AM is what I want. Again,
thanks to all the people who offered real thoughts. :'}

Wayne P. Muckleroy wrote:
> .
>
> If this sounds like to much trouble, just get to used to FM broadcast.
>
>

167. Feeding a wire loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 19:21:01 UTC
From: Antonio Vernucci <vernucci@tin.it>
Message-ID: <xOHSe.18359$4g5.1241684@news4.tin.it>
Source record: 71063

At my summer QTH, I cannot do more than using a "stealth" thin-wire antenna.

For operation 40 through 10 meters, I had fairly good results using a plain 30-ft wire and a tuner. But I do not like that solution because, in my case, access to earth (water pipe) is not convenient.

So, I decided to switch to a symmetrical antenna that does not require an earth connection. I have then mounted a square wire loop, about 15 ft each side, fed with about 5 feet of 450-ohm ladder line. The antenna impedance varies a lot across the desired frequency range, but it can be easily matched by my tuner on all bands.

The antenna being symmetrical, and the tuner asymmetrical, it is advisable to use a balun. Three solutions come to my mind:

1) using an off-the-shelf (e.g. MFJ, Vectronics, etc.) toroidal ferrite balun at the tuner output. I do not like this solution because, on some frequency bands, the antenna impedance gets very high, and I am not sure on how the RF transformer behaves under those conditions

2) putting an RF choke at the tuner output. The choke could be built by winding several turns of 450 ohm ladder line over a fat ferrite rod (obtained by glueing several small rods to each other)

3) putting an RF choke at the tuner INPUT, by winding several turns of the RG-58 cable connecting the transceiver to the tuner on a ferrite rod. In this way the tuner body would be "hot", but this may not be a real problem

Any comment on the pros and cons of the three approaches would be welcome.

73

Tony, I0JX

168. Re: Ladder Loc?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 19:30:54 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <bpimh11c2juv0vh2592sgj4sgg8ril525f@4ax.com>
Source record: 71064

On Sun, 4 Sep 2005 12:55:48 -0400, "Tony Van"
<ton-jud-ann@comcast.net> wrote:

>I'm refurbishing my center-fed zepp antenna. When I
>constructed it, I used something called a ladder loc or
>ladder lock
>which is a plastic strain relief used
>at the end of the ladder line to tie it to the radiating
>wires.
>
>Any one know if this is still made?
>
>Tks AK1O
>

Still made. The Wireman, AES and Radio Works all sell it.

bob
k5qwg

169. Re: Ladder Loc?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 19:44:08 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96C7819866B4Aspectrumhogstarbandn@207.106.92.175>
Source record: 71065

> I'm refurbishing my center-fed zepp antenna. When I
> constructed it, I used something called a ladder loc or
> ladder lock
> which is a plastic strain relief used
> at the end of the ladder line to tie it to the radiating
> wires.
>
> Any one know if this is still made?

Yes. it is:

http://search.cartserver.com/search/search.cgi?cartid=a-6994
&category=newprices&maxhits=200&keywords=ladder-loc

and at: http://www.radioworks.com/PDFCat05/72.pdf

Ed K7AAT

170. Re: Ladder Loc?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 19:44:38 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.swlfsofecdad2j@elbc-crz2m9noal>
Source record: 71066

On Sun, 04 Sep 2005 13:47:50 -0400, Dave <noone@nowhere.com> wrote:

> i don't know what ladder loc is, but i am curious what a 'center fed
> zepp'
> might be? could that possibly just be a dipole?? classically a 'zepp'
> antenna was a 1/4 wave wire trailed from a zeppelin airship end-fed with
> a
> 1/4 wave feedline that essentially acts as the other half of the dipole.

Hi Dave,

You are correct except it was a 1/2wave wire end fed with 1/4 wave feed line.
But today the center fed dipole cut for the lowest desired frequency and fed with open or ladder line is being call the center fed zepp by many..
I've also heard it called the Double Zepp. But the Doublet would be better terminology to use. In any event he would be talkig about a dipole I assume cut for 80m fed in the center with open wire parallel line of some sort and used with a tuner on all bands.

73 Dave KC1DI

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

171. Re: Feeding a wire loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 19:50:54 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.swlf240ncdad2j@elbc-crz2m9noal>
Source record: 71067

On Sun, 04 Sep 2005 15:21:01 -0400, Antonio Vernucci <vernucci@tin.it>
wrote:

> At my summer QTH, I cannot do more than using a "stealth" thin-wire
> antenna.
>
> For operation 40 through 10 meters, I had fairly good results using a
> plain 30-ft wire and a tuner. But I do not like that solution because,
> in my case, access to earth (water pipe) is not convenient.
>
> So, I decided to switch to a symmetrical antenna that does not require
> an earth connection. I have then mounted a square wire loop, about 15 ft
> each side, fed with about 5 feet of 450-ohm ladder line. The antenna
> impedance varies a lot across the desired frequency range, but it can be
> easily matched by my tuner on all bands.
>
> The antenna being symmetrical, and the tuner asymmetrical, it is
> advisable to use a balun. Three solutions come to my mind:
> 1) using an off-the-shelf (e.g. MFJ, Vectronics, etc.) toroidal ferrite
> balun at the tuner output. I do not like this solution because, on some
> frequency bands, the antenna impedance gets very high, and I am not sure
> on how the RF transformer behaves under those conditions
>
> 2) putting an RF choke at the tuner output. The choke could be built by
> winding several turns of 450 ohm ladder line over a fat ferrite rod
> (obtained by glueing several small rods to each other)
>
> 3) putting an RF choke at the tuner INPUT, by winding several turns of
> the RG-58 cable connecting the transceiver to the tuner on a ferrite
> rod. In this way the tuner body would be "hot", but this may not be a
> real problem
>
> Any comment on the pros and cons of the three approaches would be
> welcome.
>
> 73
>
> Tony, I0JX
>

Hi Tony,

I used the third method you mentioned for several years with good sucess.
I like that option because once the tuner is match the choke balun sees a
contant impedence and is not so likely to cause problems. However most

tuners use the opposite the Balun on the output. Except the new MFJ
balanced line tuner.

in any event let us know what you come up with
73 Dave KC1DI

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

172. Re: Feeding a wire loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 21:53:45 UTC
From: Antonio Vernucci <vernucci@tin.it>
Message-ID: <J1KSe.18766$4g5.1284947@news4.tin.it>
Source record: 71068

Thanks Dave,

I agree that the third solution should work well. But I will not be able to test it until I will be back there, and this will not be before several months from now.

I have verified that my Daiwa tuner has plastic tuning knobs and that both variable capacitors also have a plastic tuning axis, so the proximity of my hand should yield a limited error on the tuning point.

73

Tony, I0JX

"KC1DI" <elbc2@pivot.net> ha scritto nel messaggio
news:op.swlf240ncdad2j@elbc-crz2m9noal...
> On Sun, 04 Sep 2005 15:21:01 -0400, Antonio Vernucci <vernucci@tin.it>
> wrote:
>
> > At my summer QTH, I cannot do more than using a "stealth" thin-wire
> > antenna.
> >
> > For operation 40 through 10 meters, I had fairly good results using a
> > plain 30-ft wire and a tuner. But I do not like that solution because,
> > in my case, access to earth (water pipe) is not convenient.
> >
> > So, I decided to switch to a symmetrical antenna that does not require
> > an earth connection. I have then mounted a square wire loop, about 15 ft
> > each side, fed with about 5 feet of 450-ohm ladder line. The antenna
> > impedance varies a lot across the desired frequency range, but it can be
> > easily matched by my tuner on all bands.
> >
> > The antenna being symmetrical, and the tuner asymmetrical, it is
> > advisable to use a balun. Three solutions come to my mind:
> > 1) using an off-the-shelf (e.g. MFJ, Vectronics, etc.) toroidal ferrite
> > balun at the tuner output. I do not like this solution because, on some
> > frequency bands, the antenna impedance gets very high, and I am not sure
> > on how the RF transformer behaves under those conditions
> >
> > 2) putting an RF choke at the tuner output. The choke could be built by
> > winding several turns of 450 ohm ladder line over a fat ferrite rod
> > (obtained by glueing several small rods to each other)
> >
> > 3) putting an RF choke at the tuner INPUT, by winding several turns of
> > the RG-58 cable connecting the transceiver to the tuner on a ferrite
> > rod. In this way the tuner body would be "hot", but this may not be a
> > real problem

> >
> > Any comment on the pros and cons of the three approaches would be
> > welcome.
> >
> > 73
> >
> > Tony, I0JX
> >
>
> Hi Tony,
>
> I used the third method you mentioned for several years with good sucess.
> I like that option because once the tuner is match the choke balun sees a
> contant impedence and is not so likely to cause problems. However most
> tuners use the opposite the Balun on the output. Except the new MFJ
> balanced line tuner.
>
> in any event let us know what you come up with
> 73 Dave KC1DI
>
>
>
>
> --
> Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

173. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 22:18:10 UTC
From: Rich Myer <n8fgb@comcast.net>
Message-ID: <H-ednZ2dnZ2qFBOYnZ2dnQrvht6dnZ2dRVn-yJ2dnZ0@comcast.com>
Source record: 71069
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Yes
"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:JyiRe.2664$xw1.1794@bignews6.bellsouth.net...
>I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?
>
>
> --
>
>
>

174. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 22:20:03 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0fsmh156ijc3179ou5d0kt552ki1ii7knt@4ax.com>
Source record: 71070

On Sat, 3 Sep 2005 17:55:17 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>Owen,
>
>Wire is laying on the ground, insulated, as it doesn't make any difference
>and lasts longer. 66' is 1/4 wave at 80m which is always a safe starting
>point.

It is in free space. Lying on the ground isn't free space.

Were the radials buried, depending on the ground, 66' might be more in
the vicinity of an electrical half wave. Suspended a short distance
above the ground might be close to an electrical quarter wave. Yours
will be somewhere between depending on the installation variables.

It would be interesting to measure the impedance and find the
resonance of a pair of opposite radials.

Owen
--

175. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 22:45:46 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96C7A0645AD7Dspectrumhogstarbandn@207.106.92.175>
Source record: 71071

> The usual configuration of an 80-40 trap dipole has 40 Meter traps at
> about 33 feet from the center. The remaining wire is less than for a
> full half wave on 80 Meters since the 40 Meter trap acts as a loading
> coil on 80. Length may be less if you have 20 Meter traps as well.
>
> If you have enough room for a little over 100 feet, you may not need
> any additional loading coils. You also might reduce the total length
> some by increasing the inductance-to-capacitance ratio of the traps.

I don't think he will have any problem getting that antenna in at under
100 feet with out using extra inductance at the ends. My 75M dipole
trapped at 40M is right around 100 feet, I think. If he adds 20M traps
they will surly shorten it even more.

Ed

176. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-04 23:18:14 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <duvmh11kglaebcir7flss5cq5na6mjfd3a@4ax.com>
Source record: 71072

The question you ask is very broad.

I suggest you get a copy of any ARRL Radio Amateur's Handbook and
start there. If your interest is not high enough to pay the price of
the book, most Public Libraries have copies to loan. At this point,
the year of publication is not likely an important consideration.

After that, rephrase your question and come back to the group.

On 2 Sep 2005 18:21:07 -0700, cheian07@yahoo.com wrote:

>greetings,
>
>can someone direct me on the ways driven element of a yagi is attached
>to a boom. can a driven element (folded dipole or ordinary
>dipole)electrically connected to a boom or not? what will be the
>effect? or can i use wood as a boom? can someone also give me some
>formula on yagi design (length, spacing etc)
>
>help would be greatly appreciated.
>
>thanks,
>
>ian

177. Re: Alternate Plan

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 00:36:24 UTC
From: ogrowup@webtv.net
Message-ID: <13827-431B9308-759@storefull-3111.bay.webtv.net>
Source record: 71073

I had a similar problem about 5 years ago- I was working part of the day in a small lab and the rest in the warehouse- both in a steel building. What worked was to drape a longwire out the window (lab) or up into the rafters (warehouse), then, to kep things simple, wrap the endof the wire around the radio 2-3 times. It wasn't elegant, but it alowed receptiopn of the local Red Sox outlet!

Patrick N1NCJ

"Only two things are infinite, the Universe and human stupidity, and I'm not sure about the former."
Albert Einstein

178. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 00:54:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hn5pvqcsfn4bd@corp.supernews.com>
Source record: 71074

There are two other books to look for:

Yagi Antenna Design by James L. Lawson, W2PV
Physical Design of Yagi Antennas by David B. Leeson, W6QHS

These will answer just about any question you might have about Yagis.
Both are published by the ARRL.

Roy Lewallen, W7EL

John Ferrell wrote:
> The question you ask is very broad.
>
> I suggest you get a copy of any ARRL Radio Amateur's Handbook and
> start there. If your interest is not high enough to pay the price of
> the book, most Public Libraries have copies to loan. At this point,
> the year of publication is not likely an important consideration.
>
> After that, rephrase your question and come back to the group.
>
> On 2 Sep 2005 18:21:07 -0700, cheian07@yahoo.com wrote:
>
>
>>greetings,
>>
>>can someone direct me on the ways driven element of a yagi is attached
>>to a boom. can a driven element (folded dipole or ordinary
>>dipole)electrically connected to a boom or not? what will be the
>>effect? or can i use wood as a boom? can someone also give me some
>>formula on yagi design (length, spacing etc)
>>
>>help would be greatly appreciated.
>>
>>thanks,
>>
>>ian
>
>

179. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 01:52:35 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfg8d5hpr1@news.netins.net>
Source record: 71075

Final Measurements:

I added 8 more radials this evening for a total of 16.

Radials 2:1 Fo 2:1 BW Z VSWR @ Fo

8 3460 3564 3801 341 40,0 1.2 (at antenna)

16 3524 3580 3800 276 31,0 1.7 (at antenna)

Fo is the resonant freq, 2:1 are the lower and upper 2:1 vswr frequency points.
BW is the 2:1 SWR Bandwidth in Khz.
Z is the R +/- j impedance read from an MFJ-269 antenna analyzer at the feedpoint.

Since the radiation resistance of the antenna is known to be 25.4 ohms:

Efficiency with 8 radials: 25.4/40 = 63.5% or ground loss = 1.97 dB
Efficiency with 16 radials: 25.4/31 =81.9% or ground loss = 0.86 dB

Additional info, 2:1 VSWR Bandwidth in Khz:

0 Radials = 580 khz
8 Radials = 341 khz
16 Radials = 275 khz

So, both "traditional" considerations of a 1/4 wave vertical have now been satisfied:

Increasing the number of radials decreased the feedpoint Z, approaching the nominal 25.4 ohms radiation resistance of the antenna.

Increasing the number of radials from 0 to 8 to 16, narrowed the bandwidth from 580 to 341 to 276 khz respectively.

The SWR at resonance is worse with 16 radials than with 0 radials (higher ground losses mask the reactance at the feedpoint)

16 Radials over very good Iowa black loam yields an efficiency of approximately 82%, and I see no reason to further increase the number of radials to recover .86 dB...and of course, it would probably require doubling the radial number yet again, to 32 to get half way there.

I'm now satisfied that the antenna behaves as expected and that the numbers are credible, but not absolute.

Time to play on the air some more. So far it is getting out very well.

Thanks to all of you for your input, I've learned a lot by playing. The TLE on-line calculator is a jewel! EZNEC 4.1 got me in the ballpark. The three most valuable lessons learned: beware of an unintentional 1/4 wave transformer (coax); Reg's clever formula for calculating radiation resistance of an inverted L, using simple trig functions, and 16 radials on 80m are quite sufficient OVER MY TYPE OF SOIL.

...hasan, N0AN

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dfe13t$md3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Hasan,
>
> If you download program ENDFEED and insert details of your antenna and
> ground radials system, you will find the impedances closely agee with
> what you actually get. (I'm always very happy when this happens.)
>

180. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 02:34:08 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <86bnh1pg6qk0sos29r9ntrjc3ggjnu7qda@4ax.com>
Source record: 70976

On Sat, 03 Sep 2005 23:04:48 -0400, Vinnie S. <none@coldmail.com> wrote:

>I want to construct a 80-40-20 meter dipole, but want to trap the 80 meters to
>shorten the length. Does anyone know where I can get good quality traps? I am a
>beginner as far as antenna theory.
>
>Vinnie S.

Thanks for all the responses, but I seem to be more confused because it seemed I got differing opinions. As I said, I am a beginner at antenna theory. The frequencies I am trying to make an antenna for, are centered at 3.875, 7.225, and 14.250. Those are the center for the phone frequencies on the US bands. I wanted to shorten the 80 meter band antenna. I would have kept the 40 and 20 at the specified lengths. I guess I will buy the ARRL book. But they also make a long wire classic book. I might get that instead. .

Vinnie S.

181. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 03:24:24 UTC
From: richardharrison@webtv.net
Message-ID: <910-431BBA68-754@storefull-3255.bay.webtv.net>
Source record: 70977

Reg, G4FGQ wrote:
"The rods are both wasted effort and wasted copper (or aluminum)."

Likely so.

Radials are placed to capture displacement current to and from the vertical radiator, to prevent its travel at a high densitY in the earth where it would cause high loss.

B, L, & E found that more radials were better than longer radials. More radials put the displacement current capture closer to the vertical radiator where its density is higher. Radials need extend outward only as far as there is any current or until a point of diminishing returns is reached. At great distance from the vertical radiator, the earth`s crust, which may be affected, has a great cross section, so current density is low and so are losses. There is much less displacement current to deal with near the ends of radials. Displacement current is low near the ends of the radials and the earth out there has a large cross section and a low resistance. Due to skin effect, the closer to the surface, the higher the current. This is especially true at high frequencies.

182. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 03:40:50 UTC
From: richardharrison@webtv.net
Message-ID: <910-431BBE42-761@storefull-3255.bay.webtv.net>
Source record: 70978

I sent too soon.

The problem with ground rods at high radio frequencies is that depth of earth renetration may be low as compared with length of the ground rod. Contact that counts is that which connects with the current path.

There is a special problem with the aluminum material itself of the ground rods mentioned by the questioner. Aluminum, zinc, and magnesium are galvanic anodes used for cathodic protection of less active metals.

A copper ground rod is likely to last forever in the soil. An aluminum ground rod is likely to soon be sacrificed in its attempt to protect other connected metals in the same galvanic soup.

Best regards, Richard Harrison, KB5WZI

183. cell phone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 06:44:38 UTC
From: yhan <cheian07@yahoo.com>
Message-ID: <1125902678.882565.61710@g47g2000cwa.googlegroups.com>
Source record: 70979

greetings,

i am trying to build an external antenna for my cp. i have found serveral programs from the net about antenna designing so i might try them but my problem is this, how will i connect the coax cable to my cell phone. it does not have a whip antenna. when i opened the case i found a metal in the upper back portion of it. this is maybe the cell phone's antenna. so is there a way i can connect my external antenna to this type of cell phone? what is the impedance of a cell phone because i read that the impedance of the antenna and the feeding device should be same. any suggestion would be greatly appreciated.

thanks in advance,

ian
philippines

184. Re: 4Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 07:19:49 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835431BFFA587@zetnet.co.uk>
Source record: 70980

> >> Hi All. Any good links for building 4Mtr beams for portable work or
> >> permanent. TIA Dave.

> >4 Meters is not available for amateur radio usage in North America. RSGB
> >would be a logical reference source ... or adopt existing 6 meter or
> >commercial FM broadcast (88 - 108 MHz) designs. A standard 1/2 wave
> >driven element will be approximately 6 feet (or 2
> >meters) in length.

> Uhm -rec.radio.amateur.antenna is a world-wide newsgroup

> I find RSGB antenna designs to be disappointing. FM broadcast antennas
> are too broad band. There is more mileage in scaling 6m designs, but you
> can do your own better optimised design for 4m since it is only 500KHz
> wide. I've an 11 element on a 15m boom -but its bandwidth is only
> 200KHz.

> There is a good design here with construction details.
> http://www.g1ogy.com/G4ZTR/4Mbeam/G4ZTR4mbeam.html

> There are others if you search.

> 73 Brian GM4DIJ

> Brian< Many thanks for your link. As above, Yes I did understand that
> 70MHz wasn't available in yankland, but part of the authors answer was
> irrelevant and as It's an antenna Ng, well. I have sourced a brand new
> (bit dusty) Ex Military trombone 3 element yagi that doe's 50MHz to
> 100MHz, just got to do a few checks/calculations and suss it out, then
> I'm away. Not a bad swop for a gutter mount Eh? Bomb proof material as
> well as you'd expect from the MOD. Should last a bit longer than their
> desert boots.
LOL Cheers Dave.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Don't.

185. Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 07:24:45 UTC
From: Bob Sawyer <bobs56@bellsouth.net>
Message-ID: <24snh19iu141gghh6iamqv9peh8q7649gd@4ax.com>
Source record: 70982

I just bought a very old, verticle antenna. The ant. is aluminum and very coroded.

Is this just a cosmetic problem, or will the corosion affect the radiation/reception of RF?

Since the insulation on wire antennas doesn't affect their effectiveness, I'm thinking the corosion wouldn't be a problem; but my working-class logic has gotten me in trouble before. <G>

Will painting an aluminum antenna decrease it's effectiveness, or not matter?

Thanx-

186. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 13:51:32 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <k2joh1pfjq49nh5qcttqv2jtimlraak596@4ax.com>
Source record: 70983

On Sun, 4 Sep 2005 22:24:24 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Reg, G4FGQ wrote:
>"The rods are both wasted effort and wasted copper (or aluminum)."
>
>Likely so.
>
>Radials are placed to capture displacement current to and from the
>vertical radiator, to prevent its travel at a high densitY in the earth
>where it would cause high loss.
>
>B, L, & E found that more radials were better than longer radials. More
>radials put the displacement current capture closer to the vertical
>radiator where its density is higher. Radials need extend outward only
>as far as there is any current or until a point of diminishing returns
>is reached. At great distance from the vertical radiator, the earth`s
>crust, which may be affected, has a great cross section, so current
>density is low and so are losses. There is much less displacement
>current to deal with near the ends of radials. Displacement current is
>low near the ends of the radials and the earth out there has a large
>cross section and a low resistance. Due to skin effect, the closer to
>the surface, the higher the current. This is especially true at high
>frequencies.

Hi Richard,

You've just presented the best abstract of BL&E I've seen ever seen. It should be must reading for anyone who asks questions concerning the purpose of radials, how many, and how long.

Walt, W2DU

187. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 14:16:24 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dfhjvm$9ct$1@mailhub227.itcs.purdue.edu>
Source record: 70984

Aluminum oxide is an excellent insulator.

"Bob Sawyer" <bobs56@bellsouth.net> wrote in message
news:24snh19iu141gghh6iamqv9peh8q7649gd@4ax.com...
>I just bought a very old, verticle antenna. The ant. is aluminum and
> very coroded.
>
> Is this just a cosmetic problem, or will the corosion affect the
> radiation/reception of RF?
>
> Since the insulation on wire antennas doesn't affect their
> effectiveness, I'm thinking the corosion wouldn't be a problem; but my
> working-class logic has gotten me in trouble before. <G>
>
> Will painting an aluminum antenna decrease it's effectiveness, or not
> matter?
>
> Thanx-

188. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 14:47:38 UTC
From: richardharrison@webtv.net
Message-ID: <1518-431C5A8A-2@storefull-3258.bay.webtv.net>
Source record: 70986

Bob Sawyer wrote:
"I`m thinking the corrosion wouldn`t be a problem;--"

I think Bob is right.

Paint doesn`t help much, but it doesn`t hurt. You never see a new microwave dish that isn`t painted before shipment, mostly for appearance, but the paint inhibits corrosion too.

Aluminum spontaneously and rapidly forms oxide on its surface from contact with air. Surface oxide is a barrier to further oxidation. A painted dish is already oxidized before it is painted.

Rapid oxidation was one of the problems with aluminum house wiring. Sound electrical connections were hard to make and keep. Depending on the alloy, aluminum oxide (alumina) has such a high resistance that it is used as an insulator at high temperatures. Fretting corrosion is caused by interaction of aluminum with other metals and creates corrosion problems (extreme resistance) at junctions.

Aluminum is a satisfactory material for antennas. Witness the millions of outdoor TV antennas. High resistance of the thin oxide coating is not incapacitating.

Best regards, Richard Harrison, KB5WZI

189. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 14:48:23 UTC
From: drwxr-xr-x <nobody@frontier.net>
Message-ID: <slrndhomln.28qr.bit-bucket@shell.config.com>
Source record: 70985

On Mon, 5 Sep 2005 09:16:24 -0500, John N9JG wrote:
> "Bob Sawyer" <bobs56@bellsouth.net> wrote:
>>I just bought a very old, verticle antenna. The ant. is aluminum and
>> very coroded.
>>
>> Is this just a cosmetic problem, or will the corosion affect the
>> radiation/reception of RF?
>>
>> Since the insulation on wire antennas doesn't affect their
>> effectiveness, I'm thinking the corosion wouldn't be a problem; but my
>> working-class logic has gotten me in trouble before. <G>
>>
>> Will painting an aluminum antenna decrease it's effectiveness, or not
>> matter?

[Incidious top-posting corrected]

> Aluminum oxide is an excellent insulator.

And, for more than a century, folks have been radiating RF through
insulators. What did THAT have to do with the OP's question?

190. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 14:53:58 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dfhmofakp1@mailhub227.itcs.purdue.edu>
Source record: 70987

Yes, it is surprising how a piece of junk can still radiate a signal.

"drwxr-xr-x" <nobody@frontier.net> wrote in message
news:slrndhomln.28qr.bit-bucket@shell.config.com...
>> Aluminum oxide is an excellent insulator.
>
> And, for more than a century, folks have been radiating RF through
> insulators. What did THAT have to do with the OP's question?
>

191. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 15:10:42 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dfhn5f$au2$1@mailhub227.itcs.purdue.edu>
Source record: 70988

You and Bob are correct. However, I do hope the previous owner of the antenna used an anti-seize compound on the joints, or else the new owner will have a dickens of a time taking the antenna apart.

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:1518-431C5A8A-2@storefull-3258.bay.webtv.net...
> Bob Sawyer wrote:
> "I`m thinking the corrosion wouldn`t be a problem;--"
>
> I think Bob is right.
>
> Paint doesn`t help much, but it doesn`t hurt. You never see a new
> microwave dish that isn`t painted before shipment, mostly for
> appearance, but the paint inhibits corrosion too.
>

192. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 15:25:15 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11hoorho1mvrmaa@corp.supernews.com>
Source record: 70989

"Bob Sawyer" <bobs56@bellsouth.net> wrote in message
news:24snh19iu141gghh6iamqv9peh8q7649gd@4ax.com...
>I just bought a very old, verticle antenna. The ant. is aluminum and
> very coroded.
>
> Is this just a cosmetic problem, or will the corosion affect the
> radiation/reception of RF?

The only point at which corrosion will affect the performance of the antenna
is if the corrosion has gotten into any of the mechanical joints of the
antenna. Corrosion on the elements will not be a factor.

>
> Since the insulation on wire antennas doesn't affect their
> effectiveness, I'm thinking the corosion wouldn't be a problem; but my
> working-class logic has gotten me in trouble before. <G>
>
> Will painting an aluminum antenna decrease it's effectiveness, or not
> matter?

Matters not a bit.

Jim

193. assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 15:45:33 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <fJZSe.7175$FO3.4183@bignews3.bellsouth.net>
Source record: 70990

I run a 130' dipole fed with ladderline down to a balun , then a coax stub to the tuner.

During a recent storm, one side of the antenna broke, or was broken by a falling limb---whichever.

The easy fix is to solder the pieces together, while bracing them physically.

This would make the side where the break was approx 1' shorter than previous.

Will my tuner compensate for a 1' assymetrical load?

Any reason not to do this, insofar as loading/performance?

194. Re: assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 16:16:23 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <X9_Se.7289$L86.95@bignews6.bellsouth.net>
Source record: 70991

Should be no problem.

195. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 16:23:18 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <qg_Se.7294$L86.1039@bignews6.bellsouth.net>
Source record: 70992

The main worry with oxidation is at the joint(s).
Clean the connections where the transmission lines are attached - and if the antenna consists of more than one section, clean and penetrox the joints where they are connected.
Otherwise, a little cosmetic oxidation shouldn't hoit. ;-)
I'm not sure about comic oxidation or cosmic oxidation.

196. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 16:42:04 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfhsgtchi1@news.netins.net>
Source record: 70993

The best answer I've seen, based on current research is:

N=(SQRT(2*PI*L))/A

N equals the square root of the quantity 2*PI*L divided by A, where:

N = optimum number of radials for high efficiency
L = amount of wire available in meters
A = distance between wire tips at the far end (a measure of radial density)

A = 1.3 for 95% or greater efficiency (approximation) read article for more precise values.
A = 2.6 for 85% efficiency (approximation)

Example 1:

You have 500 meters of wire available. How many and how long for the two values of A?

N = (SQR(2*pi*500))/1.3 = 43 radials. Length = 500/43 = 11.6 meters

N= (SQR(2*pie*500))/2.6 = 22 radials. Length = 500/22 = 18 meters

Example 2: (you have space constraints and the max radial length available is 15 meters)

How many radials are required and how much wire is required?

The circumference of a circle with a radius of 15 meters is 2*PI*15 or 94.2 meters. With the tips of the radials seperated by 1.3 meters we have 94.2/1.3 = 72 radials. If we go for slightly more loss, we have 94.2/2.6 or 36 radials, 15 meters long.

Now you can plug in your own limitations for radial length, and get a feel for how many of them you will need for 95% efficiency (A=1.3 meters) and 85% (A=2.6 meters).

This info was presented in some ARRL publication, as I recall, and is also presented in the 4th Edition of "Low-Band DXing" by John Devodere.

...hasan, N0AN

"Walter Maxwell" <walt@w2du.com> wrote in message news:k2joh1pfjq49nh5qcttqv2jtimlraak596@4ax.com...
> On Sun, 4 Sep 2005 22:24:24 -0500, richardharrison@webtv.net (Richard
> Harrison) wrote:
>
>>Reg, G4FGQ wrote:
>>"The rods are both wasted effort and wasted copper (or aluminum)."

>>
>>Likely so.
>>
>>Radials are placed to capture displacement current to and from the
>>vertical radiator, to prevent its travel at a high densitY in the earth
>>where it would cause high loss.
>>
>>B, L, & E found that more radials were better than longer radials. More
>>radials put the displacement current capture closer to the vertical
>>radiator where its density is higher. Radials need extend outward only
>>as far as there is any current or until a point of diminishing returns
>>is reached. At great distance from the vertical radiator, the earth`s
>>crust, which may be affected, has a great cross section, so current
>>density is low and so are losses. There is much less displacement
>>current to deal with near the ends of radials. Displacement current is
>>low near the ends of the radials and the earth out there has a large
>>cross section and a low resistance. Due to skin effect, the closer to
>>the surface, the higher the current. This is especially true at high
>>frequencies.
>
> Hi Richard,
>
> You've just presented the best abstract of BL&E I've seen ever seen.
> It should be must reading for anyone who asks questions concerning the
> purpose of radials, how many, and how long.
>
> Walt, W2DU

197. Re: assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 16:52:01 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <AH_Se.9378$VU6.3783@bignews5.bellsouth.net>
Source record: 70994

Thanks.

I think it's one of those deals that goes: yes, there is an imbalance situation created. But, it's not significant in the big picture.

I can live with that!

198. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 18:07:03 UTC
From: fmmck@aol.com
Message-ID: <fmmck-0509051407030001@ac9f5429.ipt.aol.com>
Source record: 70995

In article <86bnh1pg6qk0sos29r9ntrjc3ggjnu7qda@4ax.com>, Vinnie S.
<none@coldmail.com> wrote:
> Thanks for all the responses, but I seem to be more confused because it
seemed I
> got differing opinions. As I said, I am a beginner at antenna theory. The
> frequencies I am trying to make an antenna for, are centered at 3.875, 7.225,
> and 14.250. Those are the center for the phone frequencies on the US bands. I
> wanted to shorten the 80 meter band antenna. I would have kept the 40
and 20 at
> the specified lengths. I guess I will buy the ARRL book. But they also make a
> long wire classic book. I might get that instead. .

Vinnie-

One thing isn't clear. How short do you need the total length to be?

I think everyone is in agreement that a trap dipole is shorter on the
lower band than a simple dipole would be for that band. The trap acts
like an inductor below its resonant frequency, so the part of the antenna
beyond the trap is electrically lengthened on the lower band(s).

Therefore, the 20 Meter traps would be at the proper places, around 16
feet each side of center. However, the 40 Meter traps would be closer to
the center than for a simple dipole, due to the inductive effect of the 20
Meter traps. Similarly, the added wire for 80 Meters is less than for a
simple dipole due to both the 20 and 40 Meter traps' inductance.

You may find that the resulting length of a dipole with both 20 and 40
Meter traps, is short enough for your needs.

73, Fred, K4DII

199. Altenate Plan # 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 18:50:30 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <Wr0Te.100334$gB.43708@tornado.ohiordc.rr.com>
Source record: 70996

While driving home from work, flip though the AM stations and find the one
you like best.

Do volunteer work for that station untile you understand radio engineering
well enough to become a station technician there.

Apply for such a position at that station.

Once you get the job, turn in your two week notice at your current job.

Once soundly employed at WAMW, tune in your radio for your work station and
enjoy.

"Fedthecat" <Fedthecat@aol.com> wrote in message
news:1125736373.469540.275780@g14g2000cwa.googlegroups.com...
> Bought a small boombox. It has no antenna connection screws, just a
> built-in antenna. It gets no AM stations at all, just static. I work in
> a big GM plant (all steel building). Nobodies radios get AM.
>
> I mounted a car antenna on a bracket (isolated from the bracket with a
> rubber gromet) and mounted the bracket to a chain link fence 20ft from
> the plant. I hooked a coax center wire to the antenna base. I clamped
> the braided wire to the bracket. At the other end, inside the plant, I
> connected the center wire to the built-in antenna on the radio via an
> alligator clip. I still get no AM. I haven't hooked the braided wire to
> anything because I have no terminals on the radio. Do I hook it to any
> ground, such as an eletrical conduit or can I hook it to the radios
> battery ground terminals(I am not using the battery terminals because I
> am plugged into an outlet)? Am I far enough from the building? Do I
> need to be above the building? Is there a limit to how long my coax can
> be? Any advice is more than I currently have. Thanks...
>

200. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 20:31:18 UTC
From: richardharrison@webtv.net
Message-ID: <911-431CAB16-222@storefull-3255.bay.webtv.net>
Source record: 70998

I appreciate Walt, W2DU`s kind words regarding my posting about ground rods and radials.

I did not recommend any particular number or length of radials. RCA`s Brown, Lewis, and Epstein examined how many and how long ground radials should be in the 1930`s. The FCC accepted their experimental work, conducted at 3 MHz, and used it to set ground system standards for broadcasting in the medium wave band. These standards are still applicable. B.L.&E. did good work.

Another RCA alumnus, E.A. Laport, abstracted some of B.L.&E.`s work in "Radio Antenna Engineering". Figs. 2.17, 2.18, and 2.19 on pages 119 and 120 show field strength as a function of the number of radials. All the Figs. show near perfection with 113 radials, so it seems the FCC rounded up to 120 radials and made it the rule. It`s worked well, giving us good broadcast reception when the earth is dry and sandy or wet and swampy. Laport`s figures show performance with 1/2 and 1/4 the ideal number of radials.

As Walter flattered me, I`ll reciprocate. Get hold of the April 1973 issue of QST. Look on page 35. Walter is pictured there. He is a real good looking fellow!

Best regards, Richard Harrison, KB5WZI

201. I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 20:35:17 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <9_1Te.71845$2Q3.57303@tornado.ohiordc.rr.com>
Source record: 70997
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

...if God or Allah uses a Yagi or a folded-dipole antenna. Does God or Allah have an EXTRA EXTRA Class amateur license? Can God (Allah) create an antenna to big for the rotator he's installed? I've spent many sleepless nights pondering such questions. How about anyone else?

"Matthew Weber" <mweber@library.berkeley.edu> wrote in message news:43148C75.606@library.berkeley.edu...
> Cecil Moore wrote:
>> Randy wrote:
>>
>>> The Christian God is not Allah, and Jesus never prayerd to Allah.
>>
>>
>> "Allah" is Aramaic for God. If Jesus prayed to God in Aramaic,
>> He prayed to Allah. Islam didn't exist when Jesus lived but
>> the word "Allah" certainly existed and was most likely in
>> Jesus' vocabulary.
>
> Not "Allah," but "El." The two names are clearly linguistically related,
> but they are not the same.
>
>> Yahweh, Jehovah, and Allah are all the same
>> Father God-head entity. What the three camps have going is nothing
>> but sibling rivalry
>
> Untrue. The claims of Christianity and Islam, their disciplines, and
> their core beliefs are different. It's simple-minded reductivism to claim
> that the Muslim Allah and the Christian God are the same. Muslim and
> Christian beliefs cannot be harmonized without doing violence to one side
> or the other. If one is true, then the other is false.
>
>> and I don't know whether God is laughing or
>> crying over those three gangs of idiots performing atrocities
>> in His name down through the ages. If one doesn't love Moslems,
>> one is not following Jesus' Christian teachings.
>
> True enough, as far as it goes. But loving Muslims doesn't imply loving
> everything that they do. Love isn't "being nice".
>
> Matt

202. Re: Feeding a wire loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 21:14:02 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <sucph15cqcg39tnf8a967832am2fb4stqg@4ax.com>
Source record: 70999

On Sun, 04 Sep 2005 19:21:01 GMT, "Antonio Vernucci" <vernucci@tin.it>
wrote:

>At my summer QTH, I cannot do more than using a "stealth" thin-wire antenna.
>
>For operation 40 through 10 meters, I had fairly good results using a plain 30-ft wire and a tuner. But I do not like that solution because, in my case, access to earth (water pipe) is not convenient.
>
>So, I decided to switch to a symmetrical antenna that does not require an earth connection. I have then mounted a square wire loop, about 15 ft each side, fed with about 5 feet of 450-ohm ladder line. The antenna impedance varies a lot across the desired frequency range, but it can be easily matched by my tuner on all bands.
>
>The antenna being symmetrical, and the tuner asymmetrical, it is advisable to use a balun. Three solutions come to my mind:
>
>1) using an off-the-shelf (e.g. MFJ, Vectronics, etc.) toroidal ferrite balun at the tuner output. I do not like this solution because, on some frequency bands, the antenna impedance gets very high, and I am not sure on how the RF transformer behaves under those conditions
>
>2) putting an RF choke at the tuner output. The choke could be built by winding several turns of 450 ohm ladder line over a fat ferrite rod (obtained by glueing several small rods to each other)
>
>3) putting an RF choke at the tuner INPUT, by winding several turns of the RG-58 cable connecting the transceiver to the tuner on a ferrite rod. In this way the tuner body would be "hot", but this may not be a real problem
>
>Any comment on the pros and cons of the three approaches would be welcome.
>
>73
>
>Tony, I0JX

Dear Tony,

In my opinion, none of the ideas are all that great. However, you surely have noticed that everybody and his brother are doing #1 without even worrying about it. Oh sure, you get the occasional thread here which takes up all three methods to one degree or another. But the vast majority of people using balanced feeders do not have Johnson Matchbox tuners, and they buy tuners with the 4:1 in place, connect it up and it works, after a fashion.

So long as you are running barefoot it's not a problem - nothing gets burned up and you are not losing enough power percentage-wise to ever see a noticeable effect on anything.

Now, to the bigger issue. Do you have a particular reason for formatting your post so that I have to use the horizontal scroll bar to read it. That's terribly inconvenient. No offense, but it's the first time I have seen anything like that.

Cheers!

203. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 21:25:09 UTC
From: Dan Richardson <>
Message-ID: <ppdph1pg410pag07s2m93ggc7itk4sqjf3@4ax.com>
Source record: 71000

On Mon, 5 Sep 2005 15:31:18 -0500, richardharrison@webtv.net (Richard
Harrison) wrote:
[snip]
>As Walter flattered me, I`ll reciprocate. Get hold of the April 1973
>issue of QST. Look on page 35. Walter is pictured there. He is a real
>good looking fellow!
[snip]

If you don't have that QST handy you can see Walter here:

http://users.adelphia.net/~k6mhe/BLE_de_W2DU.html

73,
Danny, K6MHE

204. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 21:27:30 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <gkdph1929c6kiq0i8fngf058mtnjvh0g8t@4ax.com>
Source record: 71001

On Mon, 5 Sep 2005 15:31:18 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>I appreciate Walt, W2DU`s kind words regarding my posting about ground
>rods and radials.
>
>I did not recommend any particular number or length of radials. RCA`s
>Brown, Lewis, and Epstein examined how many and how long ground radials
>should be in the 1930`s. The FCC accepted their experimental work,
>conducted at 3 MHz, and used it to set ground system standards for
>broadcasting in the medium wave band. These standards are still
>applicable. B.L.&E. did good work.
>
>Another RCA alumnus, E.A. Laport, abstracted some of B.L.&E.`s work in
>"Radio Antenna Engineering". Figs. 2.17, 2.18, and 2.19 on pages 119 and
>120 show field strength as a function of the number of radials. All the
>Figs. show near perfection with 113 radials, so it seems the FCC rounded
>up to 120 radials and made it the rule. It`s worked well, giving us
>good broadcast reception when the earth is dry and sandy or wet and
>swampy. Laport`s figures show performance with 1/2 and 1/4 the ideal
>number of radials.
>
>As Walter flattered me, I`ll reciprocate. Get hold of the April 1973
>issue of QST. Look on page 35. Walter is pictured there. He is a real
>good looking fellow!
>
>Best regards, Richard Harrison, KB5WZI

Thank you, Richard, for considering me for the MAS (mutual admiration society). You are too kind. The issue of QST you referenced contains the first installment of my series of articles, "Another Look At Reflections," which form the first seven chapters of 'Reflections 1 and 2'. Incidentally, the 3rd edition is in the publication stage. I will be posting the release date on my web page at w2du.com.

Back on the subject of radials, unless the FCC has changed the requirements since I was involved, the requirement is for 90 radials. However, most of the AM BC stations I'm familiar with use 120, even tho not required.

Walt, W2DU

205. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-05 22:48:31 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <9NudndIRcoP8VoHeRVn-rw@comcast.com>
Source record: 71002

You are correct and asked the proper question.

HOW SHORT DO YOU WANT THE FINAL ANTENNA TO BE??

Fred McKenzie wrote:
> In article <86bnh1pg6qk0sos29r9ntrjc3ggjnu7qda@4ax.com>, Vinnie S.
> <none@coldmail.com> wrote:
>
>>Thanks for all the responses, but I seem to be more confused because it
>
> seemed I
>
>>got differing opinions. As I said, I am a beginner at antenna theory. The
>>frequencies I am trying to make an antenna for, are centered at 3.875, 7.225,
>>and 14.250. Those are the center for the phone frequencies on the US bands. I
>>wanted to shorten the 80 meter band antenna. I would have kept the 40
>
> and 20 at
>
>>the specified lengths. I guess I will buy the ARRL book. But they also make a
>>long wire classic book. I might get that instead. .
>
>
> Vinnie-
>
> One thing isn't clear. How short do you need the total length to be?
>
> I think everyone is in agreement that a trap dipole is shorter on the
> lower band than a simple dipole would be for that band. The trap acts
> like an inductor below its resonant frequency, so the part of the antenna
> beyond the trap is electrically lengthened on the lower band(s).
>
> Therefore, the 20 Meter traps would be at the proper places, around 16
> feet each side of center. However, the 40 Meter traps would be closer to
> the center than for a simple dipole, due to the inductive effect of the 20
> Meter traps. Similarly, the added wire for 80 Meters is less than for a
> simple dipole due to both the 20 and 40 Meter traps' inductance.
>
> You may find that the resulting length of a dipole with both 20 and 40
> Meter traps, is short enough for your needs.
>
> 73, Fred, K4DII

206. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 00:09:13 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <0rmph1hdqkb0p9v56ttufk389d6qbcu3ni@4ax.com>
Source record: 71003

On Mon, 05 Sep 2005 18:48:31 -0400, Ham op <hamop@comcast.net> wrote:

Fred and Hamop, Thanks for your help. I think about 82ft or so for the 80 meters, for an inverted V. Basically, the same size as the Alpha Delta DX-CC at 80 meters,

http://www.alphadeltacom.com/dxcc_ii.htm

but that antenna has been on backorder since March. It would be much easier to hang an 82 foot antenna, as opposed to 120 feet. I have an Imax-2000 that I use on 10-12-15-17meters, as well as my CB for the locals. I have an Icom 746 that seems to tune at 17 meters fine with that antenna, but that is about the bandwidth. I have made DX contacts at 17. That antenna is primarily connected to my Grant LT CB for chatting with locals, but I read the review on eham.net, and tried on on 10-12-15-17. The 746 tuner worked perfectly. I was able to make contacts on 10 and 17, but none on 12 and 15, mostly because those bands were dead. So if I can use it on those bands, then I only need a 80-40-20 inverted V.

>You are correct and asked the proper question.
>
>HOW SHORT DO YOU WANT THE FINAL ANTENNA TO BE??
>
>Fred McKenzie wrote:
>> In article <86bnh1pg6qk0sos29r9ntrjc3ggjnu7qda@4ax.com>, Vinnie S.
>> <none@coldmail.com> wrote:
>>
>>>Thanks for all the responses, but I seem to be more confused because it
>>
>> seemed I
>>
>>>got differing opinions. As I said, I am a beginner at antenna theory. The
>>>frequencies I am trying to make an antenna for, are centered at 3.875, 7.225,
>>>and 14.250. Those are the center for the phone frequencies on the US bands. I
>>>wanted to shorten the 80 meter band antenna. I would have kept the 40
>>
>> and 20 at
>>
>>>the specified lengths. I guess I will buy the ARRL book. But they also make a
>>>long wire classic book. I might get that instead. .
>>
>>
>> Vinnie-
>>
>> One thing isn't clear. How short do you need the total length to be?
>>

>> I think everyone is in agreement that a trap dipole is shorter on the
>> lower band than a simple dipole would be for that band. The trap acts
>> like an inductor below its resonant frequency, so the part of the antenna
>> beyond the trap is electrically lengthened on the lower band(s).
>>
>> Therefore, the 20 Meter traps would be at the proper places, around 16
>> feet each side of center. However, the 40 Meter traps would be closer to
>> the center than for a simple dipole, due to the inductive effect of the 20
>> Meter traps. Similarly, the added wire for 80 Meters is less than for a
>> simple dipole due to both the 20 and 40 Meter traps' inductance.
>>
>> You may find that the resulting length of a dipole with both 20 and 40
>> Meter traps, is short enough for your needs.
>>
>> 73, Fred, K4DII

Vinnie S.

207. WTT Bearcat 155XL desktop scanner/FOR Broken Winchester 94 Rifle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 00:38:27 UTC
From: Mike Kulyk <mkulyk@optonline.net>
Message-ID: <by5Te.35438$U63.30002@fe12.lga>
Source record: 71004

I have a good working Bearcat 16 channel scanner. I have it working on 2 meter and 440 mhz. Great for office or to listen to fire calls ETC..

I am looking for a BROKEN,,, RATTY MESSED up Winchester Lever gun. Model 94 would be great.. PARTS gun.. I am looking for a winter project..

Mike WB2GLW

208. Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 01:24:30 UTC
From: Frank <NOSPAM@NOSPAM.com>
Message-ID: <25ydndntds9xcoHeRVn-ow@rogers.com>
Source record: 71005
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

Hi all

Let me preamble this by saying I am new at this, and need your help. But I am a quick learner!

I have a few specific questions and perhaps you can help. I am trying to troubleshoot a Fm static problem

1) Is the car coax cable lead one or two wires? I am quite sure it is two (one outer (the ground) and one inner wire) but I'll ask to confirm

2) Should a "in-glass" rear winshield antenna be grounded to the car's body? If so, from which end of the coax cable? (see Q 3)

3) Does the expression "grounding the antena" (in the case of a glass mounted antenna) be as simple as soldering a grounding wire from the outside coax lead end that plugs into the HU to a metal ground of the car? Or should it be done closer to the actual antena? SUch as at the junction of the end of the coax and where the antenna starts...

Here is more detail on my problem if this helps: inconsistent FM reception (re: static) with in-glass antenna where I use to get crystal clear reception with old car. However, there is a twist to my problem: I noticed that the coax cable (inner cable) from the HU is not truly connected to the antenna even if it looks like it is. I tested it with a continuity tester and it is not. When I try to connect the inner coax wire directly to the antenna (using a wire and soldering), then I can test it and it is well connected. In other words, the inner wire of the coax makes a continuous circuit from the HU's to the end of the antenna. Yet, I still get some static on some FM station (which is not induced by the engine or the car's electrical systems).

Any suggestion? It is an RSX 2004 (Acura). I changed the HU twice (two models) and the problem persists (same issue with the OEM)

TIA

209. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 01:32:45 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <4qrph1l0618v0fs3gdiu0gjj86of118vpk@4ax.com>
Source record: 71006

On Mon, 05 Sep 2005 14:25:09 -0700, Dan Richardson <> wrote:

>On Mon, 5 Sep 2005 15:31:18 -0500, richardharrison@webtv.net (Richard
>Harrison) wrote:
>[snip]
>>As Walter flattered me, I`ll reciprocate. Get hold of the April 1973
>>issue of QST. Look on page 35. Walter is pictured there. He is a real
>>good looking fellow!
>[snip]
>
>If you don't have that QST handy you can see Walter here:
>
>http://users.adelphia.net/~k6mhe/BLE_de_W2DU.html
>
>73,
>Danny, K6MHE
>
>
Well, Danny, ya had to go and do it din't ya? Now people who see my face in post offices will know how to trace me through my mug shot you just posted. I thought I'd gotten away with it. Somebody hire you to post it? CSI? Law & Order? At least after I'm sent away to Attica everybody, including you, will be able to find me.

Ya wanna know sumptin? I don't even have any remorse!

Walt

210. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 02:22:37 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <juuph19bb23io5eg45c5hk2amdsco8eqij@4ax.com>
Source record: 71007

On Mon, 05 Sep 2005 14:25:09 -0700, Dan Richardson <> wrote:

>On Mon, 5 Sep 2005 15:31:18 -0500, richardharrison@webtv.net (Richard
>Harrison) wrote:
>[snip]
>>As Walter flattered me, I`ll reciprocate. Get hold of the April 1973
>>issue of QST. Look on page 35. Walter is pictured there. He is a real
>>good looking fellow!
>[snip]
>
>If you don't have that QST handy you can see Walter here:
>
>http://users.adelphia.net/~k6mhe/BLE_de_W2DU.html
>
>73,
>Danny, K6MHE
>
Danny, I was just perusing the data in the post re the above url and found a typo. In the ground radial data in the line showing 30 radials, the data for 0.4/wl indicating 158 mv/meter should read 185 mv/meter.

I've searched through my files for the one I sent to you containing this data, but I can't find it. I'm assuming you simply copied my data, so it's probably my error, which I'd like to fix in the original. I guess all I can do is ask you to place a correction on that incorrect piece of data to avoid giving the impression that the remaining data may be suspect.

Walt, W2DU

211. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 02:33:38 UTC
From: Dan Richardson <>
Message-ID: <tdtph1tiv67p2g9l6ks4jjuqp5e109quhd@4ax.com>
Source record: 71008

On Mon, 05 Sep 2005 21:32:45 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>Well, Danny, ya had to go and do it din't ya? Now people who see my
>face in post offices will know how to trace me through my mug shot you
>just posted. I thought I'd gotten away with it. Somebody hire you to
>post it? CSI? Law & Order? At least after I'm sent away to Attica
>everybody, including you, will be able to find me.
>
>Ya wanna know sumptin? I don't even have any remorse!
>
>Walt

The devil made me do it! <G>

Danny

212. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 02:33:38 UTC
From: Dan Richardson <>
Message-ID: <mnvph1pj2kikejs7aphvkeb39a0kv4ck3r@4ax.com>
Source record: 71009

On Mon, 05 Sep 2005 22:22:37 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>On Mon, 05 Sep 2005 14:25:09 -0700, Dan Richardson <> wrote:
>
>>On Mon, 5 Sep 2005 15:31:18 -0500, richardharrison@webtv.net (Richard
>>Harrison) wrote:
>>[snip]
>>>As Walter flattered me, I`ll reciprocate. Get hold of the April 1973
>>>issue of QST. Look on page 35. Walter is pictured there. He is a real
>>>good looking fellow!
>>[snip]
>>
>>If you don't have that QST handy you can see Walter here:
>>
>>http://users.adelphia.net/~k6mhe/BLE_de_W2DU.html
>>
>>73,
>>Danny, K6MHE
>>
>Danny, I was just perusing the data in the post re the above url and
>found a typo. In the ground radial data in the line showing 30
>radials, the data for 0.4/wl indicating 158 mv/meter should read 185
>mv/meter.
>

I think you mean the line for 60 radials? Anyway I changed that one to
the 185 figure.

Please double check it for me.

Thanks,
Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

213. Re: I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 03:18:13 UTC
From: "Daniel J. Stern" <dastern@127.0.0.1>
Message-ID: <Pine.GSO.4.58.0509052317440.6886@alumni.engin.umich.edu>
Source record: 71011
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

On Mon, 5 Sep 2005, Wayne P. Muckleroy wrote:

> ...if God or Allah uses a Yagi or a folded-dipole antenna. Does God or Allah
> have an EXTRA EXTRA Class amateur license? Can God (Allah) create an
> antenna to big for the rotator he's installed? I've spent many sleepless
> nights pondering such questions. How about anyone else?

Well, me, I'm reading this from RAMC, and so I wonder if God and Allah and
Jesus and that lot use K&N or Fram filters.

214. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 03:44:25 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <1rCdndXCE-oSjYDeRVn-rg@web-ster.com>
Source record: 71010
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

Frank wrote:

> Hi all
>
> Let me preamble this by saying I am new at this, and need your
> help. But I am a quick learner!
>
> I have a few specific questions and perhaps you can help. I am
> trying to troubleshoot a Fm static problem
>
> 1) Is the car coax cable lead one or two wires? I am quite sure
> it is two (one outer (the ground) and one inner wire) but I'll
> ask to confirm

"Coax" is short for "coaxial conductor", i.e. two conductor one outer one inner.

>
> 2) Should a "in-glass" rear winshield antenna be grounded to the
> car's body? If so, from which end of the coax cable? (see Q 3)

That depends on the antenna, but if yes it would almost certainly be the outer conductor. If the antenna has two symmetrical conductors then it should either have a balun (which would be a little gizmo, probably cubical) between the coax and the antenna.

>
> 3) Does the expression "grounding the antena" (in the case of a
> glass mounted antenna) be as simple as soldering a grounding wire
> from the outside coax lead end that plugs into the HU to a metal
> ground of the car? Or should it be done closer to the actual
> antena? SUch as at the junction of the end of the coax and where
> the antenna starts...

"HU"? Yes, grounding in a car means to the car body.

>
> Here is more detail on my problem if this helps: inconsistent FM
> reception (re: static) with in-glass antenna where I use to get
> crystal clear reception with old car. However, there is a twist
> to my problem: I noticed that the coax cable (inner cable) from
> the HU is not truly connected to the antenna even if it looks
> like it is. I tested it with a continuity tester and it is not.
> When I try to connect the inner coax wire directly to the antenna
> (using a wire and soldering), then I can test it and it is well
> connected. In other words, the inner wire of the coax makes a
> continuous circuit from the HU's to the end of the antenna. Yet,

> I still get some static on some FM station (which is not induced
> by the engine or the car's electrical systems).
>
> Any suggestion? It is an RSX 2004 (Acura). I changed the HU twice
> (two models) and the problem persists (same issue with the OEM)
>
> TIA
>
>
It may just be a crappy antenna. If you were really determined you
could try a mag-mount external antenna just to see. If it were a
symmetrical antenna I'd build a balun for it (actually I'd probably
think about building a balun for it any time I drove it, but wouldn't
get around to it for years).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

215. Re: I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 04:49:32 UTC
From: Sharx35 <sharx35@hotmail.com>
Message-ID: <wd9Te.229234$tt5.58449@edtnps90>
Source record: 71012
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Daniel J. Stern" <dastern@127.0.0.1> wrote in message
news:Pine.GSO.4.58.0509052317440.6886@alumni.engin.umich.edu...
> On Mon, 5 Sep 2005, Wayne P. Muckleroy wrote:
>
>> ...if God or Allah uses a Yagi or a folded-dipole antenna. Does God or
>> Allah
>> have an EXTRA EXTRA Class amateur license? Can God (Allah) create an
>> antenna to big for the rotator he's installed? I've spent many sleepless
>> nights pondering such questions. How about anyone else?
>
> Well, me, I'm reading this from RAMC, and so I wonder if God and Allah and
> Jesus and that lot use K&N or Fram filters.

You have far too much time on your hands.

216. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 06:20:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfjcg1drv1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71013

For design of 2-frequency trapped dipoles, including traps, download
program TRAPDIP from website below.

First enter in the program the two frequencies and the overall length
you would like the antenna to be.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

217. Re: I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 06:34:16 UTC
From: Tony Elka <shadowlane@shadowlane.com>
Message-ID: <shadowlane-940631.23341605092005@news.newsguy.com>
Source record: 71015
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

In article <Pine.GSO.4.58.0509052317440.6886@alumni.engin.umich.edu>,
"Daniel J. Stern" <dastern@127.0.0.1> wrote:

> Well, me, I'm reading this from RAMC, and so I wonder if God and Allah and
> Jesus and that lot use K&N or Fram filters.

Jesus built my hot rod.

Tony

218. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 06:49:36 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <4_aTe.3177$oq4.2524@newsfe5-win.ntli.net>
Source record: 71014
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

"Tim Wescott" <tim@seemywebsite.com> wrote in message
news:1rCdndXCE-oSjYDeRVn-rg@web-ster.com...
> Frank wrote:
>
> > Hi all
> >
> > Let me preamble this by saying I am new at this, and need your
> > help. But I am a quick learner!
> >
> > I have a few specific questions and perhaps you can help. I am
> > trying to troubleshoot a Fm static problem
> >
> > 1) Is the car coax cable lead one or two wires? I am quite sure
> > it is two (one outer (the ground) and one inner wire) but I'll
> > ask to confirm
>
> "Coax" is short for "coaxial conductor", i.e. two conductor one
outer
> one inner.
> >
> > 2) Should a "in-glass" rear winshield antenna be grounded to the
> > car's body? If so, from which end of the coax cable? (see Q 3)
>
> That depends on the antenna, but if yes it would almost certainly be
the
> outer conductor. If the antenna has two symmetrical conductors then
it
> should either have a balun (which would be a little gizmo, probably
> cubical) between the coax and the antenna.
> >
> > 3) Does the expression "grounding the antena" (in the case of a
> > glass mounted antenna) be as simple as soldering a grounding wire
> > from the outside coax lead end that plugs into the HU to a metal
> > ground of the car? Or should it be done closer to the actual
> > antena? SUch as at the junction of the end of the coax and where
> > the antenna starts...
>
> "HU"? Yes, grounding in a car means to the car body.
> >
> > Here is more detail on my problem if this helps: inconsistent FM
> > reception (re: static) with in-glass antenna where I use to get
> > crystal clear reception with old car. However, there is a twist
> > to my problem: I noticed that the coax cable (inner cable) from

> > the HU is not truly connected to the antenna even if it looks
> > like it is. I tested it with a continuity tester and it is not.
> > When I try to connect the inner coax wire directly to the antenna
> > (using a wire and soldering), then I can test it and it is well
> > connected. In other words, the inner wire of the coax makes a
> > continuous circuit from the HU's to the end of the antenna. Yet,
> > I still get some static on some FM station (which is not induced
> > by the engine or the car's electrical systems).
> >
> > Any suggestion? It is an RSX 2004 (Acura). I changed the HU twice
> > (two models) and the problem persists (same issue with the OEM)
> >
> > TIA
> >
> >
> It may just be a crappy antenna. If you were really determined you
> could try a mag-mount external antenna just to see. If it were a
> symmetrical antenna I'd build a balun for it (actually I'd probably
> _think_ about building a balun for it any time I drove it, but
wouldn't
> get around to it for years).
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

You have both overlooked the fact that the antenna is also most probably the heating element of the heated (rear?) window. If this is the case then there has to be a d.c. block for the antenna and something to stop the supply cable shorting out the signal. This is usually as small (often cylindrical) device somewhere near and within a short distance of the window connections. If this is faulty it is most likely the cause.

The other question - if it is the heating element then does it completely work? Elements often get minute breaks in them: if the element only partly works then the working part is all you have for an aerial and so you may be suffering from lack of signal.

The most important point however is the nature of the signal/interference. Is it lack of signal - which will give fading and hiss on FM - or is it crackle being produced by the vehicle? If the latter, make sure the earth bonding is good between battery, engine, and chassis. Also make sure it has the right type of spark plugs - most vehicles these days use the type that have a resistor inside them and that is singularly the most effective way of cutting spark interference.

Finally make sure the radio earth is good. If the aerial is disconnected does the radio still work? It is not uncommon for the earth in the main harness to fail and the radio to be earthed through the aerial - which means there will be impedence (i.e. signal resistance) in the supply route which will definitely cause crackle.

--
Woody

harrogate2 at ntlworld dot com

219. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 07:23:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfjg56$2if$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71016

> 16 radials on
> 80m are quite sufficient OVER MY TYPE OF SOIL.
>
> ...hasan, N0AN
>
==========

So much for B.L & E !

Reg.

220. Re: WTT Bearcat 155XL desktop scanner/FOR Broken Winchester 94 Rifle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 11:24:23 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <Q5udnZ2dnZ0vS3jxnZ2dnQzhgN6dnZ2dRVn-zp2dnZ0@comcast.com>
Source record: 71017

Mike Kulyk wrote:
> I have a good working Bearcat 16 channel scanner. I have it working on 2
> meter and 440 mhz. Great for office or to listen to fire calls ETC..
>
> I am looking for a BROKEN,,, RATTY MESSED up Winchester Lever gun. Model 94
> would be great.. PARTS gun.. I am looking for a winter project..
>
> Mike WB2GLW
>
>

Why look on r.r.a.a for a GUN??

221. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 11:34:11 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <dLWdnWDG4sZA44DeRVn-tg@comcast.com>
Source record: 71018

Vinnie S. wrote:

> On Mon, 05 Sep 2005 18:48:31 -0400, Ham op <hamop@comcast.net> wrote:
>
>
> Fred and Hamop, Thanks for your help. I think about 82ft or so for the 80
> meters, for an inverted V. Basically, the same size as the Alpha Delta DX-CC at
> 80 meters,
>
SNIPPED to save bandwidth and reading time.

Vinnie, you will find what you need, assuming you are not intimidated by
running a free program on your computer at the site given by Reg earlier.

I quote from his post on your thread:

"Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp"

Look at "TRAPDIP" and "TRAP3" for starters.

Good Luck, HamOp

222. Re: WTT Bearcat 155XL desktop scanner/FOR Broken Winchester 94 Rifle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 12:22:01 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Ya6dnbMXtLd2FIDeRVn-tQ@crocker.com>
Source record: 71019

"Ham op" <hamop@comcast.net> wrote in message
news:Q5udnZ2dnZ0vS3jxnZ2dnQzhgN6dnZ2dRVn-zp2dnZ0@comcast.com...
> Mike Kulyk wrote:
>> I have a good working Bearcat 16 channel scanner. I have it working on 2
>> meter and 440 mhz. Great for office or to listen to fire calls ETC..
>>
>> I am looking for a BROKEN,,, RATTY MESSED up Winchester Lever gun. Model
>> 94
>> would be great.. PARTS gun.. I am looking for a winter project..
>>
>> Mike WB2GLW
>>
>>
>
> Why look on r.r.a.a for a GUN??
>
he's not looking for a gun, he's looking to get rid of a scanner.

223. Re: 80 meter traps?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 13:17:36 UTC
From: "Vinnie S." <none@coldmail.com>
Message-ID: <5n5rh1hdr4s0pqm9tn3g8vs1m358nj6l0a@4ax.com>
Source record: 71020

On Tue, 06 Sep 2005 07:34:11 -0400, Ham op <hamop@comcast.net> wrote:

>Vinnie S. wrote:
>
>> On Mon, 05 Sep 2005 18:48:31 -0400, Ham op <hamop@comcast.net> wrote:
>>
>>
>> Fred and Hamop, Thanks for your help. I think about 82ft or so for the 80
>> meters, for an inverted V. Basically, the same size as the Alpha Delta DX-CC at
>> 80 meters,
>>
> SNIPPED to save bandwidth and reading time.
>
>Vinnie, you will find what you need, assuming you are not intimidated by
>running a free program on your computer at the site given by Reg earlier.
>
>I quote from his post on your thread:

Thanks !

>
>"Regards from Reg, G4FGQ
>For Free Radio Design Software go to
>http://www.btinternet.com/~g4fgq.regp"
>
>Look at "TRAPDIP" and "TRAP3" for starters.
>
>Good Luck, HamOp

Vinnie S.

224. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 14:10:46 UTC
From: Richard Crowley <rcrowley@xpr7t.net>
Message-ID: <11hr8r78l0cf670@corp.supernews.com>
Source record: 71021
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

Frank wrote:
> 2) Should a "in-glass" rear winshield antenna be grounded to the
> car's body? If so, from which end of the coax cable? (see Q 3)

Grounding an antenna completely defeats its purpose.
Is this also part of a defrosting heating element or such?

> 3) Does the expression "grounding the antena" (in the case of a
> glass mounted antenna) be as simple as soldering a grounding wire
> from the outside coax lead end that plugs into the HU to a metal
> ground of the car? Or should it be done closer to the actual
> antena? SUch as at the junction of the end of the coax and where
> the antenna starts...

The expression "grounding the antenna" is nonsense
in the absense of better colatteral information. If it is
just an antenna (and not part of a heater or something)
then "grounding the antenna" sounds stupid.

What/who/why is "HU"? If this is a part of the circuit
you are working on, you need to reveal the entire situation.
Otherwise, you will get misleading responses based on
guessing from thousands of miles away.

> Here is more detail on my problem if this helps: inconsistent
> FM reception (re: static) with in-glass antenna where I use
> to get crystal clear reception with old car.

In-glass antennas have never been noted for their good
performance. They are only popular because they are
easier for the auto manufacturers (and car washes). Many
people add a proper antenna after-market when they are
stuck with these things.

> However, there is a twist to my problem: I noticed that
> the coax cable (inner cable) from the HU is not truly
> connected to the antenna even if it looks like it is. I tested
> it with a continuity tester and it is not.

If "HU" means Heating Unit or something, it seems likely
that the antenna lead is connected via a capacitor. The cap
would conduct RF voltage while appearing to be an open
circuit at DC (which is what your meter is using.)

225. Re: WTT Bearcat 155XL desktop scanner/FOR Broken Winchester 94 Rifle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 14:19:50 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndhr9c6.2ind.bit-bucket@shell.config.com>
Source record: 71022

```
On Tue, 6 Sep 2005 12:22:01 -0000, Dave wrote:
> "Ham op" <hamop@comcast.net> wrote:
>> Mike Kulyk wrote:
>>> I have a good working Bearcat 16 channel scanner. I have it working on 2
>>> meter and 440 mhz. Great for office or to listen to fire calls ETC..
>>>
>>> I am looking for a BROKEN,,, RATTY MESSED up Winchester Lever gun. Model
>>> 94 would be great.. PARTS gun.. I am looking for a winter project..
>>>
>> Why look on r.r.a.a for a GUN??
>>
> he's not looking for a gun, he's looking to get rid of a scanner.

And what better place to multi-post than in an antenna ng.
```

226. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 14:48:20 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <9uarh1p36oohjv6nrklmgs2evcnfe5te38@4ax.com>
Source record: 71023

On Mon, 05 Sep 2005 19:33:38 -0700, Dan Richardson <> wrote:

>>>If you don't have that QST handy you can see Walter here:
>>>
>>>http://users.adelphia.net/~k6mhe/BLE_de_W2DU.html
>>>
>>>73,
>>>Danny, K6MHE
>>>
>>Danny, I was just perusing the data in the post re the above url and
>>found a typo. In the ground radial data in the line showing 30
>>radials, the data for 0.4/wl indicating 158 mv/meter should read 185
>>mv/meter.
>>
>
>I think you mean the line for 60 radials? Anyway I changed that one to
>the 185 figure.
>
>Please double check it for me.
>
>Thanks,
>Danny, K6MHE
>
>email: k6mhe<at>arrl<dot>net
>http://users.adelphia.net/~k6mhe/

Ya done good, Danny, thanks.

Walt

227. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 15:02:29 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dfkb24mde1@news.netins.net>
Source record: 71024

OUCH!

(Flame suit on)

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dfjg56$2if$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>> 16 radials on
>> 80m are quite sufficient OVER MY TYPE OF SOIL.
>>
>> ...hasan, N0AN
>>
> ============================
>
> So much for B.L & E !
> ----
> Reg.
>
>

228. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 15:21:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfkc5v$c4o$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 71025

"Walter Maxwell" wrote
> Back on the subject of radials, unless the FCC has changed the
> requirements since I was involved, the requirement is for 90
radials.
> However, most of the AM BC stations I'm familiar with use 120, even
tho not required.
>
==========
Walt,

Has it taken 70 years for the old wives of the FCC to return to Earth, disregarding B.L & E who forgot to measure ground conductivity, not to mention permittivity, and think again about economics?

Reg.

229. Re: cell phone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 17:29:42 UTC
From: tjs <anon@anon.net>
Message-ID: <431dd5e3_3@news1.prserv.net>
Source record: 70926

If your OK with the possibilty of ruining the phone!
.. you can try to solder a short pigtail of coax to the antenna points you see in the phone. Put a BNC on the end of the pigtail and use this to connect any type of experimental antenna you like.

I dont know about in the Phillipines, but most cell phone operate on several frequency bands, so the antenna is a compromise. If for instance the frequencies are 900mhz and 2400mhz then you need to force the phone to operate on say 900 then attach a properly tuned antanna for 900mhz. Likewise for 2400mhz. A resonant half wave dipole for 900 mhz will be about 33cm (or a quarter wave vertical would be about 16cm tall with radials of 16cm). Directional antennas would be better but they are more critical to build and adjust.

One way to solve your problem might be to sit on the roof to talk, that way you get gain by your height.

Another way might be locate the phone up high, and use a remote headset, and use voice commands to dial out. You still get the benefit of height but can stay inside.

You could put the phone in the focus of a corner reflector or parabolic dish pointed at the cell tower. The phone is the radiator and the dish gives you gain. This is probably the ideal setup if you are stationary in not mobile.

Note: Any time you try to remote the antenna you need a length of coax between the phone and the antenna. At these frequencies, 50ft of even excellent coax (1/2" diameter) will likely completly ruin any gain the antenna may give you. You would only be eliminating some sources of noise by getting up away from the house. Directional antennas give +gain and the neccessary coax gives -gain but hopefully not as much, so you come out ahead.

"yhan" <cheian07@yahoo.com> wrote in message
news:1125902678.882565.61710@g47g2000cwa.googlegroups.com...
> greetings,
>
> i am trying to build an external antenna for my cp. i have found
> serveral programs from the net about antenna designing so i might try
> them but my problem is this, how will i connect the coax cable to my
> cell phone. it does not have a whip antenna. when i opened the case i
> found a metal in the upper back portion of it. this is maybe the cell
> phone's antenna. so is there a way i can connect my external antenna to
> this type of cell phone? what is the impedance of a cell phone because
> i read that the impedance of the antenna and the feeding device should
> be same. any suggestion would be greatly appreciated.
>
> thanks in advance,

>
> ian
> philippines
>

230. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 17:48:47 UTC
From: Vito <vito@crosslink.net>
Message-ID: <431dd682$0$12851@dingus.crosslink.net>
Source record: 70927
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

"Fred W4JLE" <fred@w4jle.com> wrote
> The SOS and requests for help being transmitted on CW from an old tube
type
> rig go unanswered, as no one can understand code.

So, use TAP code. Everybody knows that .... don't they?

231. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 18:00:30 UTC
From: Chris Mullins <chmullin@youneedtoknowvirginiatechsdomain.edu>
Message-ID: <dfklg3cdf1@solaris.cc.vt.edu>
Source record: 70928
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

HU is head unit, or radio

"Richard Crowley" <rcrowley@xpr7t.net> wrote in message
news:11hr8r78l0cf670@corp.supernews.com...
> Frank wrote:
>> 2) Should a "in-glass" rear winshield antenna be grounded to the car's
>> body? If so, from which end of the coax cable? (see Q 3)
>
> Grounding an antenna completely defeats its purpose.
> Is this also part of a defrosting heating element or such?
>
>> 3) Does the expression "grounding the antena" (in the case of a glass
>> mounted antenna) be as simple as soldering a grounding wire from the
>> outside coax lead end that plugs into the HU to a metal ground of the
>> car? Or should it be done closer to the actual antena? SUch as at the
>> junction of the end of the coax and where the antenna starts...
>
> The expression "grounding the antenna" is nonsense
> in the absense of better colatteral information. If it is
> just an antenna (and not part of a heater or something)
> then "grounding the antenna" sounds stupid.
>
> What/who/why is "HU"? If this is a part of the circuit
> you are working on, you need to reveal the entire situation.
> Otherwise, you will get misleading responses based on
> guessing from thousands of miles away.
>
>> Here is more detail on my problem if this helps: inconsistent
>> FM reception (re: static) with in-glass antenna where I use to get
>> crystal clear reception with old car.
>
> In-glass antennas have never been noted for their good
> performance. They are only popular because they are
> easier for the auto manufacturers (and car washes). Many
> people add a proper antenna after-market when they are
> stuck with these things.
>
>> However, there is a twist to my problem: I noticed that the coax cable
>> (inner cable) from the HU is not truly connected to the antenna even if
>> it looks like it is. I tested it with a continuity tester and it is not.
>
> If "HU" means Heating Unit or something, it seems likely
> that the antenna lead is connected via a capacitor. The cap

> would conduct RF voltage while appearing to be an open
> circuit at DC (which is what your meter is using.)

232. Re: I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 20:43:27 UTC
From: Steve <no@spam.thanks>
Message-ID: <H92dnYc8iqftYoDeRVn-rg@texas.net>
Source record: 70929
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

Daniel J. Stern wrote:
> On Mon, 5 Sep 2005, Wayne P. Muckleroy wrote:
>
>
>>...if God or Allah uses a Yagi or a folded-dipole antenna. Does God or Allah
>>have an EXTRA EXTRA Class amateur license? Can God (Allah) create an
>>antenna to big for the rotator he's installed? I've spent many sleepless
>>nights pondering such questions. How about anyone else?
>
>
> Well, me, I'm reading this from RAMC, and so I wonder if God and Allah and
> Jesus and that lot use K&N or Fram filters.

Well, we know that He drives a Fury....

233. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 23:44:15 UTC
From: Frank <NOSPAM@NOSPAM.com>
Message-ID: <Ib2dnUYA8fZttlPeRVn-1g@rogers.com>
Source record: 70930
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

Thanks to all who replied

yes I should have been more precise: HU = Head unit (or radio)

Sorry

"Richard Crowley" <rcrowley@xpr7t.net> wrote in message
news:11hr8r78l0cf670@corp.supernews.com...
> Frank wrote:
>> 2) Should a "in-glass" rear winshield antenna be grounded to
>> the car's body? If so, from which end of the coax cable? (see
>> Q 3)
>
> Grounding an antenna completely defeats its purpose.
> Is this also part of a defrosting heating element or such?
>
>> 3) Does the expression "grounding the antena" (in the case of
>> a glass mounted antenna) be as simple as soldering a grounding
>> wire from the outside coax lead end that plugs into the HU to
>> a metal ground of the car? Or should it be done closer to the
>> actual antena? SUch as at the junction of the end of the coax
>> and where the antenna starts...
>
> The expression "grounding the antenna" is nonsense
> in the absense of better colatteral information. If it is
> just an antenna (and not part of a heater or something)
> then "grounding the antenna" sounds stupid.
>
> What/who/why is "HU"? If this is a part of the circuit
> you are working on, you need to reveal the entire situation.
> Otherwise, you will get misleading responses based on
> guessing from thousands of miles away.
>
>> Here is more detail on my problem if this helps: inconsistent
>> FM reception (re: static) with in-glass antenna where I use to
>> get crystal clear reception with old car.
>
> In-glass antennas have never been noted for their good
> performance. They are only popular because they are
> easier for the auto manufacturers (and car washes). Many
> people add a proper antenna after-market when they are
> stuck with these things.
>
>> However, there is a twist to my problem: I noticed that the

>> coax cable (inner cable) from the HU is not truly connected to
>> the antenna even if it looks like it is. I tested it with a
>> continuity tester and it is not.
>
> If "HU" means Heating Unit or something, it seems likely
> that the antenna lead is connected via a capacitor. The cap
> would conduct RF voltage while appearing to be an open
> circuit at DC (which is what your meter is using.)

234. Re: cell phone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-06 23:54:53 UTC
From: yhan <cheian07@yahoo.com>
Message-ID: <1126050893.329192.189570@g14g2000cwa.googlegroups.com>
Source record: 70931

thanks for the advise. the shielded wire i think should be connected to the cellphone's ground. but i can't see the ground. every metal inside seems have continuity. maybe, its antenna is only radiator.i am not sure.any advise where to place the shield wire of coax. how about a cellphone's impedance?

thanks,

235. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 00:39:40 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <gFqTe.1185$eQ7.985@newssvr21.news.prodigy.com>
Source record: 70932
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Reminds me of the past, on the Novice bands, with the old A.M./C.W.
rigs-- when you forgot your morse, or the other guy couldnt copy
your fist -- Simply switch to A.M., grab the mic, and -- "WHAT I SAID
WAS----"! Seemed to work 40 years ago, if you didn't get caught!
Jim NN7K :)

Vito wrote:
> "Fred W4JLE" <fred@w4jle.com> wrote
>
>>The SOS and requests for help being transmitted on CW from an old tube
>
> type
>
>>rig go unanswered, as no one can understand code.
>
>
> So, use TAP code. Everybody knows that .... don't they?
>
>

236. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 01:12:12 UTC
From: nm5k@wt.net
Message-ID: <1126055532.489260.114130@o13g2000cwo.googlegroups.com>
Source record: 70933

Has it taken 70 years for the old wives of the FCC to return to Earth,
disregarding B.L & E who forgot to measure ground conductivity, not to
mention permittivity, and think again about economics?

The only stations that the FCC is concerned about is commercial.
And the reason they stick with the standard number is for stability
and getting the max bang for buck, and an easily expected
performance level. Buying a load of wire will beat using more
transmitter power over the long run. If they use 120 radials,
they know they will be getting close to maximum performance.
If they don't, it's a crap shoot. 120 radials *will* outperform
16 of them. There is no question, unless they are over sea
water. I'm not saying hams have to run that many. In fact, I
think 60 will do for most, except the most hard core for good
results. Even less for the more casual user.
But I have no problems with the FCC wanting a certain level
of performance for commercial stations. I have no problems
seeing why they do it either. Wire is cheap compared to
todays level of monthly light bill. With some stations, the radials,
or lack of , in certain directions gives them a controlable
pattern with no surprises in f/s over a period of time
with changing ground conditions. The main thing is
stability of performance over periods of time. Or thats
my take anyway.
MK

237. passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 01:34:17 UTC
From: yhan <cheian07@yahoo.com>
Message-ID: <1126056857.503193.290820@g44g2000cwa.googlegroups.com>
Source record: 70934

greeting,

can a passive repeater will work on my cp. my plan is this: to build a yagi antenna for 900mhz outside and another antenna, a corner reflector. is pointing my corner reflector to the yagi will work in improving the recepcion or should i need a coax cable connected to the reflector antenna from the yagi? any advise would be appreciated...

thanks,

ian

238. Need help with NEC modeling

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 02:16:23 UTC
From: W2RAC <w2racNOSPAM@cfl.rr.com>
Message-ID: <b6jsh19a8vpng08i4dtt0rm4ds26ckl51a@4ax.com>
Source record: 70935

PLEASE, I need help.
If anyone can run the numbers,
I have tried Quick Yagi with little success.
I have a pair of the OLDER Hy-Gain 2m antenna's. There design was a
200ohm Hairpin match (to 50ohm) with the reflector and
directors INSULATED from the boom.

Current model for the last 10+ years is the elements are not insulated
from the boom.

I want to respace the elements, possilbing cutting down as it is
easier than lenghting them, to get the best results for gain/pattern

I am only going to use them on 2M SSB with a center freq of 144.250

Here are the measurments.
14' boom
El Lgth Space
D6 34.62500 32.25
D5 35.00000 26.75
D4 35.12500 25.75
D3 35.12500 28.25
D2 35.25000 22.25
D1 35.50000 12.75
Driven 32.75000 16.75
Ref 44.37500 1.75

Notes. Measured in Inches. Reflector is mounted 1.75 inch from end of
boom, D6 is 1.5 inch from end of boom. All Elements are INSULATED on
top of the boom. If needbe I can remove 1 director as the insulator
need replacing.

239. Re: Need help to optmise a older Hy-Gain antenna for 2M SSB

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 02:16:47 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <431e4d90$0$22199$39cecf19@news.twtelecom.net>
Source record: 70936

Check your email. While these guys talk a good story about wire antennas, they really don't have much to do with gain antennas, and absolutely nothing to do with optimizing. With a couple exceptions, and you know who you are, Ian, etc.

Tom
K0TAR

W2RAC wrote:

> PLEASE, I need help.

240. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 02:24:10 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <431E4F4A.2050804@comcast.net>
Source record: 70937

All,

A fundamental basic question, which is the primary purpose of radials:

1. is it to create a ground, that is a as close as possible to zero ohm virtual reference for the 'real' vertical half of the dipole?

2. Or are they to create a real resonant half of a dipole?

If it is the first then what does the 'efficiency' curve look like for a shortened, loaded, vertical? That is if the vertical element is loaded to resonate at 1/5 of a half wave length what does the ground resistance profile look like for 120 radials at various lengths of 1/20 wave, 1/10 wave and 1/5 wave?

The question I am really driving at is if mesh is layed down at 100% coverage about what fraction of a wave length needs to be covered to create a 2.5, 5, and 10 ohm equivalent ground for the vertical above?

In the paragraph above is the mesh simulating a ground or is it fact operating as a ground.

Thanks,
Dan

nm5k@wt.net wrote:
> Has it taken 70 years for the old wives of the FCC to return to Earth,
> disregarding B.L & E who forgot to measure ground conductivity, not to
> mention permittivity, and think again about economics?
>
> The only stations that the FCC is concerned about is commercial.
> And the reason they stick with the standard number is for stability
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> performance level. Buying a load of wire will beat using more
> transmitter power over the long run. If they use 120 radials,
> they know they will be getting close to maximum performance.
> If they don't, it's a crap shoot. 120 radials *will* outperform
> 16 of them. There is no question, unless they are over sea
> water. I'm not saying hams have to run that many. In fact, I
> think 60 will do for most, except the most hard core for good
> results. Even less for the more casual user.
> But I have no problems with the FCC wanting a certain level
> of performance for commercial stations. I have no problems
> seeing why they do it either. Wire is cheap compared to
> todays level of monthly light bill. With some stations, the radials,
> or lack of , in certain directions gives them a controlable
> pattern with no surprises in f/s over a period of time
> with changing ground conditions. The main thing is

> stability of performance over periods of time. Or thats
> my take anyway.
> MK
>

241. Re: Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 02:32:56 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <431e5158$0$22196$39cecf19@news.twtelecom.net>
Source record: 70938

Rick Scott wrote:

> My old Cushcraft A3 is more than likely due for a take down and
> refurbish. Ive not really touched it in a long time and have never
> opened the traps. 15m is suffering so I may have a bad trap.
>
> So, I did a net search and not too many have posted how its done.
> SOOOO, with that I come hat in hand for hints/tips etc from those that
> have went there.
>
>
> Scotty N7HJ
>

And one other easy thing that definately helps on VHF/UHF, is cleaning the aluminum elements. I use scotchbrite pads with aluminum cleaner. As I remember Brasso maight be a substitute. Someone correct me if I'm wrong there. If the cleaners aren't available, just the pads plus light detergent followed by a good rinse will do a lot to clean up the skin of the element.

Tom
K0TAR

242. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 02:58:19 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <431e574c$0$32194$39cecf19@news.twtelecom.net>
Source record: 70940

cheian07@yahoo.com wrote:

> greetings,
>
> can someone direct me on the ways driven element of a yagi is attached
> to a boom. can a driven element (folded dipole or ordinary
> dipole)electrically connected to a boom or not? what will be the
> effect? or can i use wood as a boom? can someone also give me some
> formula on yagi design (length, spacing etc)
>
> help would be greatly appreciated.
>
> thanks,
>
> ian
>

At VHF and higher there are eventually problems from corrosion with uninsulated elements on conductive booms unless the elements are welded to the boom. At HF, actually by 6m, the problems are ignorable, because the boom diameter is not a significant fraction of a wavelength.

So 6m and down, whatever you want is fine, 2m and up, uninsulated is better for a long lived beam.

And that goes for all elements.

Tom
K0TAR

243. Re: Need help with NEC modeling

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 02:58:29 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <d6lsh1t0c5mnu74ikc2tqogupp042ealeb@4ax.com>
Source record: 70939

On Wed, 07 Sep 2005 02:16:23 GMT, W2RAC <w2racNOSPAM@cfl.rr.com>
wrote:

>PLEASE, I need help.
>If anyone can run the numbers,
>I have tried Quick Yagi with little success.
>I have a pair of the OLDER Hy-Gain 2m antenna's. There design was a
>200ohm Hairpin match (to 50ohm) with the reflector and
>directors INSULATED from the boom.
>
>Current model for the last 10+ years is the elements are not insulated
>from the boom.
>
>I want to respace the elements, possilbing cutting down as it is
>easier than lenghting them, to get the best results for gain/pattern
>
>I am only going to use them on 2M SSB with a center freq of 144.250
>
>Here are the measurments.
>14' boom
> El Lgth Space
>D6 34.62500 32.25
>D5 35.00000 26.75
>D4 35.12500 25.75
>D3 35.12500 28.25
>D2 35.25000 22.25
>D1 35.50000 12.75
>Driven 32.75000 16.75
>Ref 44.37500 1.75
>
>Notes. Measured in Inches. Reflector is mounted 1.75 inch from end of
>boom, D6 is 1.5 inch from end of boom. All Elements are INSULATED on
>top of the boom. If needbe I can remove 1 director as the insulator
>need replacing.

It would be helpful (necessary) to know the element diameters and the
spacing from -one- reference point.

There are many "modern" designs published in the literature.
Boom correction factors for insulated/non-insulated elements are all
available on the web.

Practically everything you need to know can be found by starting here:

http://www.ifwtech.co.uk/g3sek/diy-yagi/

One of the links:

http://www.k7mem.150m.com/Electronic_Notebook/antennas/yagi_vhf.html

might be especially helpful to you.

244. Re: question on yagi de

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 03:12:29 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <431e5a9d$0$32193$39cecf19@news.twtelecom.net>
Source record: 70941

Tom Ring wrote:

> So 6m and down, whatever you want is fine, 2m and up, uninsulated is
> better for a long lived beam.

That would be insulated.

Tom
K0TAR

245. Re: Refurbishing Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 03:27:47 UTC
From: Rick Scott <rickn7hj@gmail.com>
Message-ID: <5rOdncw2Koe5w4PeRVn-1A@comcast.com>
Source record: 70942

Tom Ring wrote:
> Rick Scott wrote:
>
>> My old Cushcraft A3 is more than likely due for a take down and
>> refurbish. Ive not really touched it in a long time and have never
>> opened the traps. 15m is suffering so I may have a bad trap.
>>
>> So, I did a net search and not too many have posted how its done.
>> SOOOO, with that I come hat in hand for hints/tips etc from those that
>> have went there.
>>
>>
>> Scotty N7HJ
>>
>
> And one other easy thing that definately helps on VHF/UHF, is cleaning
> the aluminum elements. I use scotchbrite pads with aluminum cleaner. As
> I remember Brasso maight be a substitute. Someone correct me if I'm
> wrong there. If the cleaners aren't available, just the pads plus light
> detergent followed by a good rinse will do a lot to clean up the skin of
> the element.
>
> Tom
> K0TAR

What do you do to protect them afterwords ?

Scotty N7HJ

246. Re: passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 04:13:03 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ELtTe.10099$bC3.3658@bignews1.bellsouth.net>
Source record: 70943

In passive repeaters, you connect the 2 antennas with some transmission line (like coax or twinlead or ladder line).
Point one antenna to the station you want to receive, and point the other antenna to your location.
They make these things to fit on cars for better cell phnone reception - but they are not directional antennas.

"yhan" <cheian07@yahoo.com> wrote in message news:1126056857.503193.290820@g44g2000cwa.googlegroups.com...
> greeting,
>
> can a passive repeater will work on my cp. my plan is this: to build a
> yagi antenna for 900mhz outside and another antenna, a corner
> reflector. is pointing my corner reflector to the yagi will work in
> improving the recepcion or should i need a coax cable connected to the
> reflector antenna from the yagi? any advise would be appreciated...
>
> thanks,
>
> ian
>

247. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 04:25:36 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <pXtTe.10255$bC3.3610@bignews1.bellsouth.net>
Source record: 70944
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

Sounds like a loose connection - possibly in the power supply (DC voltage).
Does the static also happen on the AM band ?
If so, the loose connection may be in the power supplying the radio.
If positive side checks out ok - don't forget to check out the ground side - all the way back to the battery.
I had a similar problem with an old buick once, and fixed it (after much troubleshooting with a multimeter) by running a wire from the negative side of the battery to a screw on the body - The lights stopped blinking - the radio static cleared up - and all was well in the world.

248. Reflector on a quad - Capacitor use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 06:07:07 UTC
From: Blue Dawg <thecowboyace@yahoo.com>
Message-ID: <1126073227.540139.163720@g49g2000cwa.googlegroups.com>
Source record: 70945

http://www.cebik.com/quad/quad2.html

why is a reflector using a capacitor a tad bit better on gain/rejection
on a quad?

249. Re: Reflector on a quad - Capacitor use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 12:21:02 UTC
From: jgboyles@aol.com
Message-ID: <1126095662.059362.325080@g43g2000cwa.googlegroups.com>
Source record: 70946

Blue Dawg wrote:
> http://www.cebik.com/quad/quad2.html
>
> why is a reflector using a capacitor a tad bit better on gain/rejection
> on a quad?

Hi Blue, If you will notice the sizes are different for an unloaded, inductive and capacitive loaded reflector. The current distribution in the 3 examples will be slightly different, resulting in different gain/rejection. I think the idea is to make all three reflectors perform the same, but as you see, there is a slight difference.
If you have a modelling program, such as EZNEC, you can model a quad. Then change the reflector length and note the change in current distribution, gain, and F/B. You can also add loads and see the changes.
Gary N4AST

250. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 12:33:15 UTC
From: Andy Cogswell <shorecogs@comcast.net>
Message-ID: <4-OdnZ2dnZ0VjoOwnZ2dnZhDg96dnZ2dRVn-0J2dnZ0@comcast.com>
Source record: 70947
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

"Fred W4JLE" <fred@w4jle.com> wrote in message
news:a5b5e$431747b4$471c610a$32175@ALLTEL.NET...
> The SOS and requests for help being transmitted on CW from an old tube
> type
> rig go unanswered, as no one can understand code. Mores the pity.

That's because there's no power for the old tube type rig.

251. "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 12:49:00 UTC
From: Charlie <chas@aol.com>
Message-ID: <11htogetcauugb1@news.supernews.com>
Source record: 70949
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

1. http://www.msnbc.msn.com/id/9228945/

--

Charlie - AD5TH
www.ad5th.com

252. Re: Need help with NEC modeling

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 12:50:11 UTC
From: W2RAC <w2racNOSPAM@cfl.rr.com>
Message-ID: <vdoth1hbrjot8gbalv8qrfo03tiv5sdser@4ax.com>
Source record: 70948

Thanks for the links
All elements are 3/16 rod and the DE is 7/16 tube.
Spacing is from the rear end of the boom measuring toward the front
end.

On Tue, 06 Sep 2005 19:58:29 -0700, Wes Stewart <n7ws_@*yahoo.com>
wrote:

>On Wed, 07 Sep 2005 02:16:23 GMT, W2RAC <w2racNOSPAM@cfl.rr.com>
>wrote:
>
>>PLEASE, I need help.
>>If anyone can run the numbers,
>>I have tried Quick Yagi with little success.
>>I have a pair of the OLDER Hy-Gain 2m antenna's. There design was a
>>200ohm Hairpin match (to 50ohm) with the reflector and
>>directors INSULATED from the boom.
>>
>>Current model for the last 10+ years is the elements are not insulated
>>from the boom.
>>
>>I want to respace the elements, possilbing cutting down as it is
>>easier than lenghting them, to get the best results for gain/pattern
>>
>>I am only going to use them on 2M SSB with a center freq of 144.250
>>
>>Here are the measurments.
>>14' boom
>> El Lgth Space
>>D6 34.62500 32.25
>>D5 35.00000 26.75
>>D4 35.12500 25.75
>>D3 35.12500 28.25
>>D2 35.25000 22.25
>>D1 35.50000 12.75
>>Driven 32.75000 16.75
>>Ref 44.37500 1.75
>>
>>Notes. Measured in Inches. Reflector is mounted 1.75 inch from end of
>>boom, D6 is 1.5 inch from end of boom. All Elements are INSULATED on
>>top of the boom. If needbe I can remove 1 director as the insulator
>>need replacing.
>
>It would be helpful (necessary) to know the element diameters and the
>spacing from -one- reference point.

>
>There are many "modern" designs published in the literature.
>Boom correction factors for insulated/non-insulated elements are all
>available on the web.
>
>Practically everything you need to know can be found by starting here:
>
>http://www.ifwtech.co.uk/g3sek/diy-yagi/
>
>One of the links:
>
>http://www.k7mem.150m.com/Electronic_Notebook/antennas/yagi_vhf.html
>
>might be especially helpful to you.

253. Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 13:44:44 UTC
From: pinpassion <mjdrum@comcast.net>
Message-ID: <1126100684.670634.172990@f14g2000cwb.googlegroups.com>
Source record: 70950

Hi Gang,

I'm building my first 6 meter vertical antenna
for repeater use. I already have a 6 meter beam
for SSB DX use. (Cushcraft 5 element)

I'm using the plans from G3JVL for a 5/8 wave
aluminum antenna. I have the tubing from Texas
Towers (extruded aluminum) designed to fit in
to each other, so this should make a perfect
antenna when I get it cut to size. For those
not familiar with the G3JVL antenna, here is
a link:

http://www.hamuniverse.com/6metervertical.html

The advice I need is how should I protect the
antenna prior to putting it on the roof? Is there
a spray I should use to resist rust, or something
I should use when I connect the sections to help
maintain a good connection and prevent oxidation?
I suppose this might have the added benefit of making
the antenna easier to disassemble.

I was planning on using stainless hardware to assemble
the sections. I was initially thinking of using a
stainless hose clamp, but I was advised to drill a hole
through the sections and use a bolt and nut as that is
more reliable.

This is my fist shot at a homebrew, so any advice is
appreciated.

Thanks,

Mike N2QAC

254. Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 14:02:07 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1126098596.599662.122930@o13g2000cwo.googlegroups.com>
Source record: 70951

Hi all,

I'm curious about dummy loads. I read that ideally dummy loads convert RF energy into heat, but I'm sure in the real world, there will still be a small amount RF energy transmitted.

My friend tried using a dummy load on a 300W transmitter. He was only running it for a few mins at the VHF range, but he was picking up a signal 100 ft away. Is that typical?

What's your experience on dummy loads? Were you able to pick up a signal, as well, with this type of distance?

I don't know much about dummy loads, but I think that 100ft is just a tad bit too far, no?

255. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 14:07:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfms7bpbi1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70952

MK,

How satisfying it is to read your message, written in plain, easy to understand, well-punctuated English, without any undeciferable coded abbreviations.

I agree with what you say although I am unfamiliar with exactly how the FCC fits into the scheme of things.

Amateurs and commercial broadcasters have a common fundamental requirement. There is a service area to be covered with a given field strength. Depending on frequency, requirements then diverge. But the design methods used to satisfy requirements are all confined (or should be) to the principles of engineering economics. Inevitably, the Dollar, Pound, Frank, Mark, Rouble and the Yen rule the roost.

Both commercial broadcasters and amateurs do a cost-befit analysis. The broadcaster takes into account the revenue acruing from selling the service. The amateur, whether he likes it or not, has to ask himself what the satisfaction of using the station is worth.

Amateurs' bank accounts are not unlimited.

Field strength at the limits of the service area depends on the power efficiency of the radiating system. If engineering economics dictate use of a set of buried ground radials then the peformance of the ground radials must be included. Considering the system as a whole, it may be economical NOT to achieve the maximum possible radiating efficiency. Indeed, the maximum is seldom the target.

If there is an economical choice in the matter, once the location of the station is decided, everybody agrees that efficiency depends on soil resistivity at the site. To estimate efficiency it is necessary, at the very least, to make a guess at soil resistivity. Perhaps just by looking at the type of weeds growing in it. Or it can be measured.

Depending on how far it enters into station economics, it is possible to numerically estimate efficiency from the number and length of radials AND FROM SOIL RESISTIVITY.

B.L & E and the FCC don't enter into it.

Reg.

==========
MK wrote,
> The only stations that the FCC is concerned about is commercial.

> And the reason they stick with the standard number is for stability
> and getting the max bang for buck, and an easily expected
> performance level. Buying a load of wire will beat using more
> transmitter power over the long run. If they use 120 radials,
> they know they will be getting close to maximum performance.
> If they don't, it's a crap shoot. 120 radials *will* outperform
> 16 of them. There is no question, unless they are over sea
> water. I'm not saying hams have to run that many. In fact, I
> think 60 will do for most, except the most hard core for good
> results. Even less for the more casual user.
> But I have no problems with the FCC wanting a certain level
> of performance for commercial stations. I have no problems
> seeing why they do it either. Wire is cheap compared to
> todays level of monthly light bill. With some stations, the
radials,
> or lack of , in certain directions gives them a controlable
> pattern with no surprises in f/s over a period of time
> with changing ground conditions. The main thing is
> stability of performance over periods of time. Or thats
> my take anyway.
> MK
>

256. Re: Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 14:12:12 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <JO6dncCddOOyaIPeRVn-vQ@web-ster.com>
Source record: 70953

CD wrote:
> Hi all,
>
> I'm curious about dummy loads. I read that ideally dummy loads convert
> RF energy into heat, but I'm sure in the real world, there will still
> be a small amount RF energy transmitted.
>
> My friend tried using a dummy load on a 300W transmitter. He was only
> running it for a few mins at the VHF range, but he was picking up a
> signal 100 ft away. Is that typical?
>
> What's your experience on dummy loads? Were you able to pick up a
> signal, as well, with this type of distance?
>
> I don't know much about dummy loads, but I think that 100ft is just a
> tad bit too far, no?
>
Even with a perfect dummy load you'd still get some leakage from your transmitter and cabling -- I generally expect that if I run into a dummy load I'm going to peg the S meter of any receivers that are on-frequency and in the room.

So picking up the signal 100ft away doesn't surprise me.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

257. Re: passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 14:42:40 UTC
From: richardharrison@webtv.net
Message-ID: <18566-431EFC60-34@storefull-3258.bay.webtv.net>
Source record: 70954

Ian wrote:
"Can a passive repeater work on my cell phone?"

Whenever you use a passive repeater in a path, you split the path in two. The attenuation is greatest in the first few feet of the path. After the first few feet, signal strength declines only about 6 dB every time distance from an antenna doubles. The much greater loss of two paths (add about 22 dB) versus the loss in a single path is the reason passive repeaters are unpopular in most cases.

If very high gain antennas can be used with a passive repeater, its high loss can be overcome. This is unlikely in a cell phone application. Microwave systems use passive repeaters in unusual cases such as periscope antennas and mountain top billboard reflectors that are very large and close spaced.

If one antenna of a back to back pair can "see" one end of a radio path, and the other antenna can "see" the other end, the pair may make an effective repeater, but will have much loss.

Best regards, Richard Harrison, KB5WZI

258. Re: Need help with NEC modeling

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 15:26:45 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <k71uh1lgnbvdekeoglo1fc3uigidenckmf@4ax.com>
Source record: 70955

On Wed, 07 Sep 2005 12:50:11 GMT, W2RAC <w2racNOSPAM@cfl.rr.com>
wrote:

>Thanks for the links
>All elements are 3/16 rod and the DE is 7/16 tube.
>Spacing is from the rear end of the boom measuring toward the front
>end.

The best I can make of this isn't much improvement since the elements
for the most part are too short.

By cutting the reflector down to 41.5" there is some marginal
improvement in gain and F/B.

The existing design has G = 9.5 and F/B ~9.0.

With a 41.5" reflector, G ~ 10 and F/B ~ 10.3

If you could lengthen D1 and D2 to 37.5" and 36" respectively, then G
= 11.0 and F/B ~ 16, with a decent pattern.

This will be accompanied by a big lowering of feedpoint resistance,
which is to be expected.

>
>On Tue, 06 Sep 2005 19:58:29 -0700, Wes Stewart <n7ws_@*yahoo.com>
>wrote:
>
>>On Wed, 07 Sep 2005 02:16:23 GMT, W2RAC <w2racNOSPAM@cfl.rr.com>
>>wrote:
>>
>>>PLEASE, I need help.
>>>If anyone can run the numbers,
>>>I have tried Quick Yagi with little success.
>>>I have a pair of the OLDER Hy-Gain 2m antenna's. There design was a
>>>200ohm Hairpin match (to 50ohm) with the reflector and
>>>directors INSULATED from the boom.
>>>
>>>Current model for the last 10+ years is the elements are not insulated
>>>from the boom.
>>>
>>>I want to respace the elements, possilbing cutting down as it is
>>>easier than lenghting them, to get the best results for gain/pattern
>>>
>>>I am only going to use them on 2M SSB with a center freq of 144.250
>>>
>>>Here are the measurments.

>>>14' boom
>>> El Lgth Space
>>>D6 34.62500 32.25
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>>>D3 35.12500 28.25
>>>D2 35.25000 22.25
>>>D1 35.50000 12.75
>>>Driven 32.75000 16.75
>>>Ref 44.37500 1.75
>>>
>>>Notes. Measured in Inches. Reflector is mounted 1.75 inch from end of
>>>boom, D6 is 1.5 inch from end of boom. All Elements are INSULATED on
>>>top of the boom. If needbe I can remove 1 director as the insulator
>>>need replacing.
>>
>>It would be helpful (necessary) to know the element diameters and the
>>spacing from -one- reference point.
>>
>>There are many "modern" designs published in the literature.
>>Boom correction factors for insulated/non-insulated elements are all
>>available on the web.
>>
>>Practically everything you need to know can be found by starting here:
>>
>>http://www.ifwtech.co.uk/g3sek/diy-yagi/
>>
>>One of the links:
>>
>>http://www.k7mem.150m.com/Electronic_Notebook/antennas/yagi_vhf.html
>>
>>might be especially helpful to you.

259. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 15:41:33 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <qn1uh1dln013betj933p8fv9irsccpb3sb@4ax.com>
Source record: 70956

On Wed, 7 Sep 2005 14:07:39 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>MK,
>
>How satisfying it is to read your message, written in plain, easy to
>understand, well-punctuated English, without any undeciferable coded
>abbreviations.
>
>I agree with what you say although I am unfamiliar with exactly how
>the FCC fits into the scheme of things.
>
>Amateurs and commercial broadcasters have a common fundamental
>requirement. There is a service area to be covered with a given field
>strength. Depending on frequency, requirements then diverge. But the
>design methods used to satisfy requirements are all confined (or
>should be) to the principles of engineering economics. Inevitably, the
>Dollar, Pound, Frank, Mark, Rouble and the Yen rule the roost.
>
>Both commercial broadcasters and amateurs do a cost-befit analysis.
>The broadcaster takes into account the revenue acruing from selling
>the service. The amateur, whether he likes it or not, has to ask
>himself what the satisfaction of using the station is worth.
>
>Amateurs' bank accounts are not unlimited.
>
>Field strength at the limits of the service area depends on the power
>efficiency of the radiating system. If engineering economics dictate
>use of a set of buried ground radials then the peformance of the
>ground radials must be included. Considering the system as a whole,
>it may be economical NOT to achieve the maximum possible radiating
>efficiency. Indeed, the maximum is seldom the target.
>
>If there is an economical choice in the matter, once the location of
>the station is decided, everybody agrees that efficiency depends on
>soil resistivity at the site. To estimate efficiency it is necessary,
>at the very least, to make a guess at soil resistivity. Perhaps just
>by looking at the type of weeds growing in it. Or it can be measured.
>
>Depending on how far it enters into station economics, it is possible
>to numerically estimate efficiency from the number and length of
>radials AND FROM SOIL RESISTIVITY.
>
>B.L & E and the FCC don't enter into it.

>----
>Reg.

Sorry to disagree, Reg, but it appears you're overlooking an important point--the difference between the efficiency of the radiating system itself, versus the efficiency of the ground area external to the radiating system.

BL&E shows that when 90 - 120 (actually 113) radials of 0,4 w/l form the ground system for a 1/4 wl radiator, the efficiency is 98.7% efficient, REGARDLESS OF THE SOIL RESISTIVITY UNDER THE RADIALS. This is shown by obtaining the field strength of 192 mv/meter at 1 mile for 1000 watts delivered to the antenna under the conditions described above, compared to 194.5 mv/meter with a perfect ground having an efficiency of 100%

It is only the soil resistivity of the ground external to the radial system that determines the field stength external to the radial system. Consequently, the soil resistivity (or conductivity, if you like) is significant only in the areas external to the radial system.

Walt, W2DU

260. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 16:39:28 UTC
From: Dan Richardson <>
Message-ID: <ok5uh19f3kpjl75ne83johikoo26pffu3u@4ax.com>
Source record: 70957

On Wed, 07 Sep 2005 11:41:33 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>Sorry to disagree, Reg, but it appears you're overlooking an important
>point--the difference between the efficiency of the radiating system
>itself, versus the efficiency of the ground area external to the
>radiating system.

Walter, my friend, you're beating a dead horse. It would appear that
Reg's mind is made up and no amount factual proof is going to change
it.

Had BL&E been Englishmen I sure things would be different.<G>

73,
Danny, K6MHE

261. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 16:41:00 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <306uh1d2qjepk6eqt17mts5scoirb0e7sv@4ax.com>
Source record: 70958

On Wed, 07 Sep 2005 09:39:28 -0700, Dan Richardson <> wrote:

>On Wed, 07 Sep 2005 11:41:33 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>Sorry to disagree, Reg, but it appears you're overlooking an important
>>point--the difference between the efficiency of the radiating system
>>itself, versus the efficiency of the ground area external to the
>>radiating system.
>
>Walter, my friend, you're beating a dead horse. It would appear that
>Reg's mind is made up and no amount factual proof is going to change
>it.
>
>Had BL&E been Englishmen I sure things would be different.<G>
>
>73,
>Danny, K6MHE
>
Good point, Danny, how true.

Walt

262. Re: Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 16:56:07 UTC
From: dougmc@frenzy.com
Message-ID: <HYETe.229316$0f.192109@tornado.texas.rr.com>
Source record: 70959

In article <1126098596.599662.122930@o13g2000cwo.googlegroups.com>,
CD <mr.whatever@gmail.com> wrote:

| My friend tried using a dummy load on a 300W transmitter. He was only
| running it for a few mins at the VHF range, but he was picking up a
| signal 100 ft away. Is that typical?

Probably

| I don't know much about dummy loads, but I think that 100ft is just a
| tad bit too far, no?

There is the guy who got a Worked all Continents using only a light
bulb as his antenna. (And basically it's just a dummy load, though
the resistance varies and so it doesn't make a very good dummy load,
though it shouldn't make a better antenna than a good dummy load. Was
that sentence long enough?)

The leakage of your rig and the feed lines is signifigant. And of
course, the dummy load itself will radiate a little bit too. You may
have a hard time getting a WAC, but certainly the signal is there and
can be picked up by those close. It's also why it's a good idea to ID
yourself and such even when transmitting into a dummy load.

--
Doug McLaren, dougmc@frenzy.com, AD5RH
In the valley of the blind, the Venetian is king.

263. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 16:58:25 UTC
From: Ron Murray <rmurray32@cox.net>
Message-ID: <%_ETe.5719$rj.4059@lakeread07>
Source record: 70960

```
| Sorry to disagree, Reg, but it appears you're overlooking an
important
| point--the difference between the efficiency of the radiating system
| itself, versus the efficiency of the ground area external to the
| radiating system.
|
| BL&E shows that when 90 - 120 (actually 113) radials of 0,4 w/l form
| the ground system for a 1/4 wl radiator, the efficiency is 98.7%
| efficient, REGARDLESS OF THE SOIL RESISTIVITY UNDER THE RADIALS.
This
| is shown by obtaining the field strength of 192 mv/meter at 1 mile
for
| 1000 watts delivered to the antenna under the conditions described
| above, compared to 194.5 mv/meter with a perfect ground having an
| efficiency of 100%
|
| It is only the soil resistivity of the ground external to the radial
| system that determines the field stength external to the radial
| system. Consequently, the soil resistivity (or conductivity, if you
| like) is significant only in the areas external to the radial
system.
|
| Walt, W2DU

Walt,

What if the ground outside the radial system was comprised of 30-1000
feet of sand and rock overlying any conductive soil below? Would we
then be able to measure 192 mv/meter at one mile with our 113 radials
of 0.4 w/l?

Ron, WA4IWN
```

264. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 17:26:34 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11hu8mj63a5e11c@corp.supernews.com>
Source record: 70961

pinpassion wrote:
> Hi Gang,
>
> I'm building my first 6 meter vertical antenna
> for repeater use. I already have a 6 meter beam
> for SSB DX use. (Cushcraft 5 element)
>
> I'm using the plans from G3JVL for a 5/8 wave
> aluminum antenna. I have the tubing from Texas
> Towers (extruded aluminum) designed to fit in
> to each other, so this should make a perfect
> antenna when I get it cut to size. For those
> not familiar with the G3JVL antenna, here is
> a link:
>
> http://www.hamuniverse.com/6metervertical.html
>
> The advice I need is how should I protect the
> antenna prior to putting it on the roof? Is there
> a spray I should use to resist rust, or something
> I should use when I connect the sections to help
> maintain a good connection and prevent oxidation?
> I suppose this might have the added benefit of making
> the antenna easier to disassemble.
>
> I was planning on using stainless hardware to assemble
> the sections. I was initially thinking of using a
> stainless hose clamp, but I was advised to drill a hole
> through the sections and use a bolt and nut as that is
> more reliable.
>
> This is my fist shot at a homebrew, so any advice is
> appreciated.
>
> Thanks,
>
> Mike N2QAC
>
Mike;

The first advice to protect your new antenna prior to mounting it is to insure that nothing is allowed to fall on or against it while it is in your shop. This is very detrimental to the final look of the antenna. ;^). Seriously though being made of aluminum it will not rust. It will

lightly oxidize but this is a natural action as aluminum is very reactive with oxygen. If you are in a salty environment you might lightly spay paint the aluminum with either a color paint or a clear finish otherwise you really do not have to worry about the metal. Just be sure that your paint does not have any metal in it.
One thing you might want to consider is coating the joints between two pieces of metal with a conductive grease. You should be able to find that at a Radio Shack or other electrical supply house. Using a nut and bolt to hold sections of tubing together is a very good idea, just be careful when tightening the nut not to crush the tubing.

Good luck;

Dave WD9BDZ

265. Re: Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 17:36:17 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11hu98m3q79vr61@corp.supernews.com>
Source record: 70962

Doug McLaren wrote:

> In article <1126098596.599662.122930@o13g2000cwo.googlegroups.com>,
> CD <mr.whatever@gmail.com> wrote:
>
> | My friend tried using a dummy load on a 300W transmitter. He was only
> | running it for a few mins at the VHF range, but he was picking up a
> | signal 100 ft away. Is that typical?
>
> Probably
>
> | I don't know much about dummy loads, but I think that 100ft is just a
> | tad bit too far, no?
>
> There is the guy who got a Worked all Continents using only a light
> bulb as his antenna. (And basically it's just a dummy load, though
> the resistance varies and so it doesn't make a very good dummy load,
> though it shouldn't make a better antenna than a good dummy load. Was
> that sentence long enough?)
>
> The leakage of your rig and the feed lines is signifigant. And of
> course, the dummy load itself will radiate a little bit too. You may
> have a hard time getting a WAC, but certainly the signal is there and
> can be picked up by those close. It's also why it's a good idea to ID
> yourself and such even when transmitting into a dummy load.
>

If I might insert my comments. I whole heartedly agree with the other responses. A dummy load will radiate and using light bulbs as a dummy load will work.

However, they will radiate emf as well as light. One of my mother's cousins, Arnold W2OVP SK, received his first ham license on something like 8DEC1941, if you are a student of history you know what happened next. Radio Silence until after August 1945. Anyway one night he was practicing his CW into a bank of light bulbs at his home in Buffalo, NY. He received a phone call from one of his friends on the other side of town that his code sounded good. Suffice it to say that he shutdown and did not do that again. So yes a dummy load will radiate, just not very efficiently.

Dave WD9BDZ

266. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 19:13:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11huevcqtndtr30@corp.supernews.com>
Source record: 70963

dansawyeror wrote:
> All,
>
> A fundamental basic question, which is the primary purpose of radials:
>
> 1. is it to create a ground, that is a as close as possible to zero ohm
> virtual reference for the 'real' vertical half of the dipole?

There is no such thing as "creating a ground". As for a "virtual reference", you can declare any point on any conductor a "reference" and for that matter "ground" that you wish.

> 2. Or are they to create a real resonant half of a dipole?

There's no need to try to make a dipole. If the radials are on or very near the ground, their sole purpose is to reduce the amount of loss due to current returning to the base of the antenna. The current entering the antenna at the base equals the current flowing into the source through the ground. This ground current results in I^2 * R loss; radials reduce the R and therefore the loss.

In the case of a "ground plane" antenna with highly elevated radials, the radials provide a path for the base current to flow (again, current out of the source -- into the antenna -- has to equal the current into it -- from the radials). Because of the physical configuration, it's sometimes more convenient to build an antenna this way instead of making a dipole. The radials radiate very little, and the vertical section radiates twice as much per unit length as a dipole, resulting in the same overall gain and pattern.

> If it is the first then what does the 'efficiency' curve look like for a
> shortened, loaded, vertical? That is if the vertical element is loaded
> to resonate at 1/5 of a half wave length what does the ground resistance
> profile look like for 120 radials at various lengths of 1/20 wave, 1/10
> wave and 1/5 wave?

The answer to this depends on the ground conductivity and frequency. But the radiation resistance of the shortened antenna will be less than that of a full-height one. Therefore, if the ground resistance is fixed and determined by the ground system (not completely true -- it does depend some on the antenna height -- but close enough for discussion), the efficiency of the short antenna will be less than for a full-height one. I recommend finding and reading "The W2FMI Ground-Mounted Short Vertical", by Jerry Sevick, W2FMI in March 1973 QST. He built several antennas very much like you describe and made extensive measurements.

>
> The question I am really driving at is if mesh is layed down at 100%
> coverage about what fraction of a wave length needs to be covered to
> create a 2.5, 5, and 10 ohm equivalent ground for the vertical above?

Sorry, I don't know the answer to that one right off the bat. It could be determined with NEC-4 modeling, but I don't have time to do that. I suggest that you locate a copy of Brown, Lewis, and Epstein's paper "Ground Systems as a Factor in Antenna Efficiency", now posted on the web. You should be able to get a fairly good idea from their measurements of 113-radial systems.

>
> In the paragraph above is the mesh simulating a ground or is it fact
> operating as a ground.

I really don't know what "simulating a ground" and "operating as a ground" means. But the radial field doesn't act like either real Earth or a perfect infinite plane, if that's what you mean. If sufficiently fine, a mesh will act like a solid conductor the size of the mesh.

Roy Lewallen, W7EL

267. Re: Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 19:44:29 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndhugot.t10.bit-bucket@shell.config.com>
Source record: 70964

On Wed, 07 Sep 2005 07:12:12 -0700, Tim Wescott wrote:
> CD wrote:
>> Hi all,
>>
>> I'm curious about dummy loads. I read that ideally dummy loads convert
>> RF energy into heat, but I'm sure in the real world, there will still
>> be a small amount RF energy transmitted.
>>
>> My friend tried using a dummy load on a 300W transmitter. He was only
>> running it for a few mins at the VHF range, but he was picking up a
>> signal 100 ft away. Is that typical?
>>
>> What's your experience on dummy loads? Were you able to pick up a
>> signal, as well, with this type of distance?
>>
>> I don't know much about dummy loads, but I think that 100ft is just a
>> tad bit too far, no?
>>
> Even with a perfect dummy load you'd still get some leakage from your
> transmitter and cabling -- I generally expect that if I run into a dummy
> load I'm going to peg the S meter of any receivers that are on-frequency
> and in the room.
>
> So picking up the signal 100ft away doesn't surprise me.

A friend of mine and I used to do 'code practice' on 40M with our rigs cranked down to approx 20 watts each -- using Heathkit Cantennas at both ends. S-9 sigs both ways. We were 5 blocks apart.

As well, once a week we used to (attempt to) check into a distant (180 miles) 2M SSB. While waiting for net control (and the rest of the net) to point in our compass direction (220 degrees - approx 35 past the hour), we'd chat back and forth - again switched into the Cantennas. And, again, S-9+ sigs both ways.

It's more a testament to the quality of good receivers now-a-days -- than the leakiness of a dummy load. Look over what the QRP and QRPp folks are doing - with their "Millions of Miles Per Watt" records, and you'll realize (if you haven't already) than you can happily 'do' amateur radio with Not Much Watts.

73
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux

Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

268. Re: Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 19:52:55 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <431f453f_1@newsfeed.slurp.net>
Source record: 70965

"CD" wrote
> My friend tried using a dummy load on a 300W transmitter. He was only
> running it for a few mins at the VHF range, but he was picking up a
> signal 100 ft away. Is that typical?

If that 300 W was all radiated from a matched 1/2-wave dipole, it would generate a free-space, maximum field of about 4 volts per meter at a distance of 100 feet.

If the sum of cabinet, cable and dummy load radiation was 80 dB below that, the maximum free-space field at 100 feet would be about 400 microvolts per meter -- a very healthy signal.

RF

269. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 20:08:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfnhbm$h7c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70966

"Walter Maxwell" <walt@w2du.com> wrote in message
news:qn1uh1dln013betj933p8fv9irsccpb3sb@4ax.com...
> On Wed, 7 Sep 2005 14:07:39 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >MK,
> >
> >How satisfying it is to read your message, written in plain, easy
to
> >understand, well-punctuated English, without any undeciferable
coded
> >abbreviations.
> >
> >I agree with what you say although I am unfamiliar with exactly how
> >the FCC fits into the scheme of things.
> >
> >Amateurs and commercial broadcasters have a common fundamental
> >requirement. There is a service area to be covered with a given
field
> >strength. Depending on frequency, requirements then diverge. But
the
> >design methods used to satisfy requirements are all confined (or
> >should be) to the principles of engineering economics. Inevitably,
the
> >Dollar, Pound, Frank, Mark, Rouble and the Yen rule the roost.
> >
> >Both commercial broadcasters and amateurs do a cost-befit analysis.
> >The broadcaster takes into account the revenue acruing from selling
> >the service. The amateur, whether he likes it or not, has to ask
> >himself what the satisfaction of using the station is worth.
> >
> >Amateurs' bank accounts are not unlimited.
> >
> >Field strength at the limits of the service area depends on the
power
> >efficiency of the radiating system. If engineering economics
dictate
> >use of a set of buried ground radials then the peformance of the
> >ground radials must be included. Considering the system as a
whole,
> >it may be economical NOT to achieve the maximum possible radiating
> >efficiency. Indeed, the maximum is seldom the target.
> >
> >If there is an economical choice in the matter, once the location

of
> >the station is decided, everybody agrees that efficiency depends on
> >soil resistivity at the site. To estimate efficiency it is
necessary,
> >at the very least, to make a guess at soil resistivity. Perhaps
just
> >by looking at the type of weeds growing in it. Or it can be
measured.
> >
> >Depending on how far it enters into station economics, it is
possible
> >to numerically estimate efficiency from the number and length of
> >radials AND FROM SOIL RESISTIVITY.
> >
> >B.L & E and the FCC don't enter into it.
> >----
> >Reg.
>
> Sorry to disagree, Reg, but it appears you're overlooking an
important
> point--the difference between the efficiency of the radiating system
> itself, versus the efficiency of the ground area external to the
> radiating system.
>
> BL&E shows that when 90 - 120 (actually 113) radials of 0,4 w/l form
> the ground system for a 1/4 wl radiator, the efficiency is 98.7%
> efficient, REGARDLESS OF THE SOIL RESISTIVITY UNDER THE RADIALS.
This
> is shown by obtaining the field strength of 192 mv/meter at 1 mile
for
> 1000 watts delivered to the antenna under the conditions described
> above, compared to 194.5 mv/meter with a perfect ground having an
> efficiency of 100%
>
> It is only the soil resistivity of the ground external to the radial
> system that determines the field stength external to the radial
> system. Consequently, the soil resistivity (or conductivity, if you
> like) is significant only in the areas external to the radial
system.
>
> Walt, W2DU
>
==========

Walt, just what is it you cannot agree with? You appear to be making
an argument where none exists.

It is obvious there must be a distant point beyond which a large
number of radials will approach 100% efficiency regardless of ground
resistivity. B.L & E and the FCC arbitraliry decided on
1/2-wavelength and 120. Both nice round figures.

I'm sorrry to say you appear unable to agree that for the remaining 99.9% of all possible cases, ie., for cases less than 1/2-wavelength and fewer than 120 radials, that GROUND RESISTIVITY in the immediate vicinity of the antenna DOES HAVE A SIGNIFICANT EFFECT ON EFFICIENCY and it cannot be disregarded.

My only criticism of B.L & E is that they forgot to measure soil resistivity before leaving the site. And apparently, nobody has ever bothered to go back and do it for them.

The only mention of their work occurs on this newsgroup. When laying radials, 99% of amateurs forget B.L & E (if they have ever heard of them) and the magic number of 120.

Hasan Schiers has recently given a blow-by-blow account of a sensible way to lay a set of radials with the reasoning behind it.

Reg.

270. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 20:17:13 UTC
From: richardharrison@webtv.net
Message-ID: <3649-431F4AC9-92@storefull-3254.bay.webtv.net>
Source record: 70968

Reg, G4FGQ wrote:
"The broadcaster takes into account the revenue accruing from selling the service."

Yes, and he takes into account the ease of compliance with FCC Riles in the USA.

Although 90 radials is a minimum requirement for the U.S. AM broadcaster, here is the rule quoted by John Edward Cunningham in his 1977 "The Complete Broadcast Antenna Handbook", from page 311:

"The current FCC Rules specify that the radials should be at least 1/4 wavelength long and that there should be as many as practicable, but in no case less than 90. The Rules add that a system of 120 radials spaced every 3-degrees and extending 0.35-0.4 wavelength from the tower is considered an excellent ground system. In addition, a square ground screen 24 or 48 on a side is often provided at the base of the tower, particularly when the tower height is such as to cause a high voltage.

Whenever a less than optimum ground system is used, the FCC requires a complete field-intensity survey to establish that the effective field at one mile meets minimum requirements."

Best regards, Richard Harrison, KB5WZI

271. Re: Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 20:20:32 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <M7GdnSM_N5cs1oLeRVn-1Q@comcast.com>
Source record: 70967

My dummy load is 100% enclosed in oil AND a 1 gallon can. This is pretty tight. I estimate leakage at around -120 to - 130 dB.

I run about 10 to 11 feet of coax from my transmitter to the low pass filter to the tuner to the antenna switch to the dummy load. The coax is good quality 9913. BUT, it uses a woven copper braid as the overbraid. The braid has a leakage impedance of typically 0.020 + jw10^-8 ohms. The inductive term means that the little holes in the braid 'LEAK' rf. At VHF the coax isolation could be -60 to -80 dB. So, a 100 watt signal could leak between 10 and 100 microwatts. If you have a cell phone that power level is close to your cell phone's power output. Your receiver will detect a signal 1 one millioneth as strong.

CD wrote:
> Hi all,
>
> I'm curious about dummy loads. I read that ideally dummy loads convert
> RF energy into heat, but I'm sure in the real world, there will still
> be a small amount RF energy transmitted.
>
> My friend tried using a dummy load on a 300W transmitter. He was only
> running it for a few mins at the VHF range, but he was picking up a
> signal 100 ft away. Is that typical?
>
> What's your experience on dummy loads? Were you able to pick up a
> signal, as well, with this type of distance?
>
> I don't know much about dummy loads, but I think that 100ft is just a
> tad bit too far, no?
>

272. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 21:08:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11hulmh3t2s1t5b@corp.supernews.com>
Source record: 70969

Reg Edwards wrote:
> . . .
> My only criticism of B.L & E is that they forgot to measure soil
> resistivity before leaving the site. And apparently, nobody has ever
> bothered to go back and do it for them.

What would you suggest as a method of measuring the RF ground resistivity to a depth of 17 - 100 feet (3 skin depths at 3 MHz for the range of likely resistivities)? Assuming it's very likely that the resistivity would be quite different at different depths within that range, how should they have used that information? How would you use that information if someone "bothered to go back and do it for them"?

Reg, all signs point to your being seriously in need of a holiday. How about a little trip to New Jersey to show us Yanks how it should have been done? For less than the price of a couple of bottles of decent wine, you can buy everything you'll need -- bucket, pocket DVM, trowel -- right there, so you won't even have to carry any equipment with you.

Roy Lewallen, W7EL

273. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 22:16:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfnorb$o6u$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70970

Dear Roy,

I'm sorry to say your worthless comments constitute an abject
admission of defeat in an argument which exists only in your
imagination.

By the way, are you still using your S-meter as the North American
Standard of signal strength?

Reg.

274. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 22:43:57 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <N2KTe.9043$FW1.1351@newsread3.news.atl.earthlink.net>
Source record: 70971

"pinpassion" <mjdrum@comcast.net> wrote in message
news:1126100684.670634.172990@f14g2000cwb.googlegroups.com...
> Hi Gang,
>
> I'm building my first 6 meter vertical antenna
> for repeater use. I already have a 6 meter beam
> for SSB DX use. (Cushcraft 5 element)
>
> I'm using the plans from G3JVL for a 5/8 wave
> aluminum antenna. I have the tubing from Texas
> Towers (extruded aluminum) designed to fit in
> to each other, so this should make a perfect
> antenna when I get it cut to size. For those
> not familiar with the G3JVL antenna, here is
> a link:
>
> http://www.hamuniverse.com/6metervertical.html
>
> The advice I need is how should I protect the
> antenna prior to putting it on the roof? Is there
> a spray I should use to resist rust, or something
> I should use when I connect the sections to help
> maintain a good connection and prevent oxidation?
> I suppose this might have the added benefit of making
> the antenna easier to disassemble.
>
> I was planning on using stainless hardware to assemble
> the sections. I was initially thinking of using a
> stainless hose clamp, but I was advised to drill a hole
> through the sections and use a bolt and nut as that is
> more reliable.
>
> This is my fist shot at a homebrew, so any advice is
> appreciated.
>
> Thanks,
>
> Mike N2QAC
>
Look at the way the Beam is heald together and use that method. The split
ends and the SS hose clamps. Use AL or SS for everything you can. If you
want to you can shine up the elements where they mate and use some pentrox
on them you can get from an electrical supply place. Maybe evens Lowes.

275. Re: I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 23:03:45 UTC
From: God <nunya@myhouse.com>
Message-ID: <llKTe.27373$mb4.12609@tornado.rdc-kc.rr.com>
Source record: 70972
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

"Daniel J. Stern" <dastern@127.0.0.1> wrote in message
news:Pine.GSO.4.58.0509052317440.6886@alumni.engin.umich.edu...
> On Mon, 5 Sep 2005, Wayne P. Muckleroy wrote:
>
>
> Well, me, I'm reading this from RAMC, and so I wonder if God and Allah and
> Jesus and that lot use K&N or Fram filters.

Yes, I do use Fram filters.

276. Re: passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 23:09:51 UTC
From: yhan <cheian07@yahoo.com>
Message-ID: <1126134591.858660.134280@g14g2000cwa.googlegroups.com>
Source record: 70973

thanks for all advise

ian

277. Re: passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-07 23:17:18 UTC
From: yhan <cheian07@yahoo.com>
Message-ID: <1126135038.693639.327240@g43g2000cwa.googlegroups.com>
Source record: 70974

My cell phone has a metal that sticks at the back beside the battery. This is maybe it's antenna. No jack for external antenna. Is there a way i can connect my self-made antenna to the cp using coax cable? i cant figure out the ground. I also do not know its impedance. can someone give me advise if it is possible to connect my external antenna?

thanks in advance,

ian

278. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 03:02:12 UTC
From: munsch@attglobal.net
Message-ID: <431fad26_3@news1.prserv.net>
Source record: 70975

Mike:

One thing that no one will tell you is why manufacturers use plated hardware which rusts instead of stainless. Cost? No. Stainless will not stay tight, while plated hardware will rust up and then never loosen. So, if you use stainless, it is highly desirable to use Nylon insert locknuts or else carefully double nut everything, and add Loctite before assembly. It is no fun finding another piece of the antenna at the bottom of the tower every day after the wind blows a while.

--
Crazy George

279. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 03:47:16 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <7hcvh1tv86rpkssj1kugu5fg4f1hhrecl4@4ax.com>
Source record: 70876

On Wed, 7 Sep 2005 22:02:12 -0500, <munsch@attglobal.net> wrote:

>Mike:
>
>One thing that no one will tell you is why manufacturers use plated hardware
>which rusts instead of stainless. Cost? No. Stainless will not stay tight,
>while plated hardware will rust up and then never loosen. So, if you use
>stainless, it is highly desirable to use Nylon insert locknuts or else
>carefully double nut everything, and add Loctite before assembly. It is no
>fun finding another piece of the antenna at the bottom of the tower every
>day after the wind blows a while.

George, I wonder if you tried lubricating the ss parts before
assembly.

Stainess threaded parts are well known for galling, and can bind
before properly tensioning the fastener. It is a widely debated topic,
but common advice is to lubricate the parts. Google for debate on what
to use (wax, WD40, grease, moly etc)

My experience is that stainless threads should be lubricated whenever
used with nyloc nuts to reduce heat damage and galling of the nyloc
insert. Marine grease seems to work fine, and it doesn't seem to
unduly upset the prevailing torgue characteristics.

Mike, ss hoseclamps on telescoping tubes with split ends seems to work
fine. Put a bit of marine grease on the worm in the hoseclamp. I think
you are less likely to crush the tube than through-bolting it.
Remember that the joint is going to flex to some extent. A little bit
of corrosion inhibitor in the slip joint will help maintain a good
connnection through life... depends on the environment as to the
necessity to to this.

FWIW.

Owen
--

280. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 04:19:25 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <0v-dnX_XAvtEJoLeRVn-rA@comcast.com>
Source record: 70877

"Bob Sawyer" <bobs56@bellsouth.net> wrote in message
news:24snh19iu141gghh6iamqv9peh8q7649gd@4ax.com...
>I just bought a very old, vertical antenna. The ant. is aluminum and
> very corroded.
>
> Is this just a cosmetic problem, or will the corrosion affect the
> radiation/reception of RF?
>
> Since the insulation on wire antennas doesn't affect their
> effectiveness, I'm thinking the corrosion wouldn't be a problem; but my
> working-class logic has gotten me in trouble before. <G>
>
> Will painting an aluminum antenna decrease it's effectiveness, or not
> matter?
>
> Thanks

Bob -

If you wish to clean the aluminum - lye (NaOH) is often used - however this is a caustic agent - and usual precautions should be used if you use this approach. There are also aluminum cleaners available at your local auto supply stores.

Although some amateur use steel wool pads -- this can leave steel slivers on the aluminum tubing that can oxidize (rust) - I refer non metallic scrubbing pads if you need some elbow grease.

w9gb

281. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 11:20:13 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <rPOdnbgqY_D5g73eRVn-sw@bright.net>
Source record: 70878

Scothbrite pads seem to work great for cleaning off oxidation from
aluminum...when reassembling the joints, one can use penetrox (as
someone else mentioned) or alnox, both should be available at electrical
supply outlets.

Scott
N0EDV

gb wrote:

> "Bob Sawyer" <bobs56@bellsouth.net> wrote in message
> news:24snh19iu141gghh6iamqv9peh8q7649gd@4ax.com...
>
>>I just bought a very old, vertical antenna. The ant. is aluminum and
>>very corroded.
>>
>>Is this just a cosmetic problem, or will the corrosion affect the
>>radiation/reception of RF?
>>
>>Since the insulation on wire antennas doesn't affect their
>>effectiveness, I'm thinking the corrosion wouldn't be a problem; but my
>>working-class logic has gotten me in trouble before. <G>
>>
>>Will painting an aluminum antenna decrease it's effectiveness, or not
>>matter?
>>
>>Thanks
>
>
> Bob -
>
> If you wish to clean the aluminum - lye (NaOH) is often used - however this
> is a caustic agent - and usual precautions should be used if you use this
> approach. There are also aluminum cleaners available at your local auto
> supply stores.
>
> Although some amateur use steel wool pads -- this can leave steel slivers on
> the aluminum tubing that can oxidize (rust) - I refer non metallic scrubbing
> pads if you need some elbow grease.
>
> w9gb
>
>

282. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 11:38:51 UTC
From: pinpassion <mjdrum@comcast.net>
Message-ID: <1126179531.846744.320350@f14g2000cwb.googlegroups.com>
Source record: 70879

Dave, Ralph, George, and Owen

Thank you for your help and suggestions.

Mike

283. Re: passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 12:05:51 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <02m5v2-72n.ln1@p400bob.personal.cox.net>
Source record: 70880

Further to Richards comments

You can also model a passive repeater reasonably easily. With a propagation modelling pgm (eg Radio Mobile, UKWTools etc) find out what the receive signal level will be at the "repeater", then do a coverage study with that signal from the repeater site.

In my experience the signals are very low and not often worth it. I was however involved in a setup to get signal on 400MHz into a railway cutting from a TX site only 1800 metres away. The measured signal in the cutting was about -107dBm but with the passive setup that came up to about -87dBm. In this case the cutting was on the side of a mountain (ie no other usable reflections) and the useful distance from the passive repeater was only about 200 metres. The repeater was a 14dBi yagi pointed at the distant TX site coax connected to a 8dBi yagi pointed down the cutting.

Cheers Bob W5/VK2YQA

Richard Harrison wrote:
>
> Ian wrote:
> "Can a passive repeater work on my cell phone?"

284. Re: 80m Inverted L Initial measurements

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 13:38:22 UTC
From: richardharrison@webtv.net
Message-ID: <21133-43203ECE-123@storefull-3252.bay.webtv.net>
Source record: 70881

Hassan Schiers wrote:
"--and 16 radials on 80m are quite sufficient over my type of soil."

Glancing at Fig. 2.17 on page 119 of Laport`s "Radio Antenna Engineering" shows that BL&E would agree.

1000 watts into a 90-degree vertical with 16 radials will produce about 160 mv/m at one mile. Perfection is only about 190 mv/m. 85% should be close enough to perfection, unless you are a broadcaster or the FCC enforcing its rules on a broadcaster.

Best regards, Richard Harrison, KB5WZI

285. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 13:40:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfpevg$53m$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70882

<Dan Richardson wrote -
> Had BL&E been Englishmen I sure things would be different.<G>
==========

They sure would!

They would have been instructed to go back and finish the job.

Reg.

286. Ham Antennas At Work During Katrina Aftermath

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 14:47:20 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <X9YTe.6064$mH.5570@fed1read07>
Source record: 70883

http://easylink.playstream.com/katu/050831ham_operator_530pm.wvx

--
CL -- I doubt, therefore I might be !

287. Re: Thanks to all who replied

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 15:14:10 UTC
From: Tony Van <ton-jud-ann@comcast.net>
Message-ID: <b6-dncxycsPUyL3eRVn-qA@comcast.com>
Source record: 70884

Got to get it done before winter!

73

288. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 16:09:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfpnnjsij1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70885

> Dan Richardson wrote -
> > Had BL&E been Englishmen I sure things would be different.<G>
> ==========
>
> They sure would!
>
> They would have been instructed (by their employers) to go back and finish the job.
> ----
> Reg.

==========

I am reminded of the military engineer who was dispatched by Napolion, an engineer himself, in connection with standardisation of the Metre, to measure the distance between the Earth's Equator and the North Pole.

Measurements began, but the further the engineer departed from his beautiful lady friend in Paris the more difficult it became to make progress along the route. Eventually, he couldn't withstand the mental and physical stress. He returned to her Parisian boudoir and resorted to cooking the books in what time he had to spare.

So, the International Standard of Length, The Metre, held in Paris, France, carefully guarded by the German occupying forces during WW2, may or may not be equal to 39.37 English inches.

Actually, the most fundamental physical measurement standard is the Mass of the Standard Kilogram on which everything else depends. But it is quite an arbitrary quantity.

I have just finished a bottle of Blossom Hill, Californian, white wine. Makes a pleasant change to arguing about what 'amateurs' BL&E might, or might not have done before leaving the site.

Reg.

289. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 16:19:13 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11i0p42gsqjjj6c@corp.supernews.com>
Source record: 70886

pinpassion wrote:
> Dave, Ralph, George, and Owen
>
> Thank you for your help and suggestions.
>
> Mike
>
Thank You Mike. That's what we are here for.

Dave WD9BDZ

290. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 16:22:00 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11i0p99q0dvpncc@corp.supernews.com>
Source record: 70887

Reg Edwards wrote:

>>Dan Richardson wrote -
>> > Had BL&E been Englishmen I sure things would be different.<G>
>>==========
>>
>>They sure would!
>>
>>They would have been instructed (by their employers) to go back and
>
> finish the job.
>
>>----
>>Reg.
>
>
> ==========
>
> I am reminded of the military engineer who was dispatched by Napolion,
> an engineer himself, in connection with standardisation of the Metre,
> to measure the distance between the Earth's Equator and the North
> Pole.
>
> Measurements began, but the further the engineer departed from his
> beautiful lady friend in Paris the more difficult it became to make
> progress along the route. Eventually, he couldn't withstand the mental
> and physical stress. He returned to her Parisian boudoir and resorted
> to cooking the books in what time he had to spare.
>
> So, the International Standard of Length, The Metre, held in Paris,
> France, carefully guarded by the German occupying forces during WW2,
> may or may not be equal to 39.37 English inches.
>
> Actually, the most fundamental physical measurement standard is the
> Mass of the Standard Kilogram on which everything else depends. But it
> is quite an arbitrary quantity.
>
> I have just finished a bottle of Blossom Hill, Californian, white
> wine. Makes a pleasant change to arguing about what 'amateurs' BL&E
> might, or might not have done before leaving the site.
> ----
> Reg.
>
>

All the above is/maybe true but remember that all the formule work using the values represented in the METRE and the KILOGRAM. Something must be correct here....

Dave WD9BDZ

291. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 16:51:30 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <eaq0i11umq6se8bncjql655d3omvtb4mj1@4ax.com>
Source record: 70888

On Thu, 8 Sep 2005 16:09:23 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I have just finished a bottle of Blossom Hill, Californian, white
>wine. Makes a pleasant change to arguing about what 'amateurs' BL&E
>might, or might not have done before leaving the site.
>----
>Reg.
>
I hate to say this, Reg, but calling BL&E 'amateurs' is insulting to
me. I knew them well, and worked with B and E in the RCA Laboratories
antenna lab, and they are anything but 'amateurs'. I think you
finished off the Blossom Hill to rapidly.

Perhaps you should take a look at the long list of IRE articles
published by Dr. G.H. Brown, reporting his work that shaped the
present design of all AM BC antennas. Did you ever wonder what
happened to the diamond-shaped AM towers? And why the AM towers
constructed since 1940 have a uniform cross section?

And did you know that Dr. Brown gave John Kraus, W8JK, the idea of
close spaced elements that culminated in the 'W8JK Beam' antenna?

L, (Bob Lewis) is also a fine engineer, although he is also a ham,
W2EBS.

Walt

292. Re: I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 18:26:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6oWdnQUlhN8CH73eRVn-ug@comcast.com>
Source record: 70889
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

God wrote:

> "Daniel J. Stern" <dastern@127.0.0.1> wrote in message
> news:Pine.GSO.4.58.0509052317440.6886@alumni.engin.umich.edu...
>
>>On Mon, 5 Sep 2005, Wayne P. Muckleroy wrote:
>>
>>
>>Well, me, I'm reading this from RAMC, and so I wonder if God and Allah and
>>Jesus and that lot use K&N or Fram filters.
>
>
>
> Yes, I do use Fram filters.

God has spoken! So, end the thread!
>
>

293. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 18:28:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6oWdnQQlhN-KHr3eRVn-ug@comcast.com>
Source record: 70890

Stainless also has a passivated [read higher resistivity] surface.
Poorer RF conductor.

munsch@attglobal.net wrote:

> Mike:
>
> One thing that no one will tell you is why manufacturers use plated hardware
> which rusts instead of stainless. Cost? No. Stainless will not stay tight,
> while plated hardware will rust up and then never loosen. So, if you use
> stainless, it is highly desirable to use Nylon insert locknuts or else
> carefully double nut everything, and add Loctite before assembly. It is no
> fun finding another piece of the antenna at the bottom of the tower every
> day after the wind blows a while.
>
> --
> Crazy George
>
>

294. Re: Ground rods.at HF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 18:37:54 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <2_idnZo-1cGnGL3eRVn-hg@comcast.com>
Source record: 70891

David G. Nagel wrote:
SNIPPED for readability
>>
> All the above is/maybe true but remember that all the formule work using
> the values represented in the METRE and the KILOGRAM. Something must be
> correct here....
>
> Dave WD9BDZ

Yep! Everything simply requires adjustments to proportionality
constants, Reynolds numbers, Plankian constants, etc.

295. FS: MFJ-704 Low Pass Filter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 21:29:28 UTC
From: ars_wa8mea@netzero.com
Message-ID: <1126214967.999483.298520@g47g2000cwa.googlegroups.com>
Source record: 70892

If your harmonics are causing TVI problems, an MFJ-704 could keep your neighbors happy while you have fun hamming.
MFJ's Super Low Pass filter simply plugs between your rig and antenna. It suppresses TVI, RFI, telephone and other interference by reducing unwanted harmonics going to your antenna. At the same time your HF signal passes on through with low loss so you can snag rare DX.
Nine Chebyshev poles, MFJ's exclusive TeflonDielectric Technology capacitors, Hi-Q inductors, ground plane shielding and an RF tight cabinet give you excellent TVI and RFI protection. (Right from the MFJ flier.) Instructions & box included. ONLY $19.95 plus $8.95 shipping and insurance. First e-mail gets it! 73, Bill - WA8MEA - ars_wa8mea@netzero.com - http://HamRadioFun.com

296. Re: passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 23:35:44 UTC
From: yhan <cheian07@yahoo.com>
Message-ID: <1126222544.059326.240040@f14g2000cwb.googlegroups.com>
Source record: 70893

how about the connection? can you direct me on how to establish
connection b/w two antennas. say, coax cable.How to connect this to the
two antennas?

thanks & regards,

ian

297. Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-08 23:51:11 UTC
From: Frank <NOSPAM@NOSPAM.com>
Message-ID: <v-GdnY0p_OgYU73eRVn-1w@rogers.com>
Source record: 70894
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

Hi there

What is the best type of "wire" for making a homemade car antenna
to pick up FM radio. Is it copper? Aluminium? What thickness or
size. Lenght?

Thanks!

298. Re: Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 00:03:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h9k1i15btvjje5soc3lgp64429f8d7jmas@4ax.com>
Source record: 70895
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

On Thu, 8 Sep 2005 19:51:11 -0400, "Frank" <NOSPAM@NOSPAM.com> wrote:
>What is the best type of "wire" for making a homemade car antenna
>to pick up FM radio. Is it copper? Aluminium? What thickness or
>size. Lenght?

Hi Frank,

Try welding rod.

73's
Richard Clark, KB7QHC

299. Re: Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 00:09:42 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <ap4Ue.2814$I7.2658@newssvr25.news.prodigy.net>
Source record: 70896
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

Or "Brazeing Rod" might be more acceptable, as most welding rod have
seen is coated with flux -- Jim NN7K

Richard Clark wrote:
> On Thu, 8 Sep 2005 19:51:11 -0400, "Frank" <NOSPAM@NOSPAM.com> wrote:
>
>>What is the best type of "wire" for making a homemade car antenna
>>to pick up FM radio. Is it copper? Aluminium? What thickness or
>>size. Lenght?
>
>
> Hi Frank,
>
> Try welding rod.
>
> 73's
> Richard Clark, KB7QHC

300. Re: Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 00:15:12 UTC
From: Greg <not_here@nospam.com>
Message-ID: <ew4Ue.9987$iM2.925358@news.xtra.co.nz>
Source record: 70897
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:ap4Ue.2814$I7.2658@newssvr25.news.prodigy.net...
> Or "Brazeing Rod" might be more acceptable, as most welding rod have seen
> is coated with flux -- Jim NN7K
>
>
> Richard Clark wrote:
>> On Thu, 8 Sep 2005 19:51:11 -0400, "Frank" <NOSPAM@NOSPAM.com> wrote:
>>
>>>What is the best type of "wire" for making a homemade car antenna to pick
>>>up FM radio. Is it copper? Aluminium? What thickness or size. Lenght?
>>
>>
>> Hi Frank,
>>
>> Try welding rod.
>>
>> 73's
>> Richard Clark, KB7QHC

Arc welding rods are usually coated. Gas welding rods are not, and could be
brass, steel etc.

301. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 00:43:22 UTC
From: Mac <vk2evb@hotmail.com>
Message-ID: <dfql5loq1@nnrp.waia.asn.au>
Source record: 70898
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Great work and excellent publicity...cya Mac

"Charlie" <chas@aol.com> wrote in message
news:11htogetcauugb1@news.supernews.com...
> 1. http://www.msnbc.msn.com/id/9228945/
>
> --
>
> Charlie - AD5TH
> www.ad5th.com
>
>
>
>
>
>
>

302. Re: Reflector on a quad - Capacitor use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 01:32:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfqooa$5ks$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70899

"Blue Dawg" wrote
> http://www.cebik.com/quad/quad2.html
>
> why is a reflector using a capacitor a tad bit better on
gain/rejection
> on a quad?

==========
Because the loading capacitor requires a tad bit greater length of the loaded element which, for the same frequency, slightly changes the radiation pattern.

When a loading coil is used the element is a tad bit shorter and, combined with the small loss in the loading coil, it has the opposite effect.

Reg.

303. Re: Advice on building a 6 meter vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 01:53:05 UTC
From: munsch@attglobal.net
Message-ID: <4320eea7_3@news1.prserv.net>
Source record: 70900

Owen:

We've had this discussion before, and I must be using better quality stainless hardware than you have used. In the dozens of pounds of stainless from 0-80 up to 5/8" I have installed in the last 40 years, I could not specify when the last one galled if I had to. And I take lots of them apart, in addition to those which I expect to last forever. OTOH, somewhere around 40 years ago when I first started using stainless, I found plenty of it on the ground under a month old installation until I wised up about the fact that lock washers, even split ring style, were not enough to hold under constant vibration. And especially so on tubing where the tubing collapses before the lockwasher will bite into the nut.

--
Crazy George
"Owen Duffy" <owen@no.where> wrote in message
news:7hcvh1tv86rpkssj1kugu5fg4f1hhrecl4@4ax.com...
> On Wed, 7 Sep 2005 22:02:12 -0500, <munsch@attglobal.net> wrote:
>
> >Mike:
> >
> >One thing that no one will tell you is why manufacturers use plated
hardware
> >which rusts instead of stainless. Cost? No. Stainless will not stay
tight,
> >while plated hardware will rust up and then never loosen. So, if you use
> >stainless, it is highly desirable to use Nylon insert locknuts or else
> >carefully double nut everything, and add Loctite before assembly. It is
no
> >fun finding another piece of the antenna at the bottom of the tower every
> >day after the wind blows a while.
>
> George, I wonder if you tried lubricating the ss parts before
> assembly.
>
> Stainess threaded parts are well known for galling, and can bind
> before properly tensioning the fastener. It is a widely debated topic,
> but common advice is to lubricate the parts. Google for debate on what
> to use (wax, WD40, grease, moly etc)
>
> My experience is that stainless threads should be lubricated whenever
> used with nyloc nuts to reduce heat damage and galling of the nyloc
> insert. Marine grease seems to work fine, and it doesn't seem to
> unduly upset the prevailing torgue characteristics.
>

> Mike, ss hoseclamps on telescoping tubes with split ends seems to work
> fine. Put a bit of marine grease on the worm in the hoseclamp. I think
> you are less likely to crush the tube than through-bolting it.
> Remember that the joint is going to flex to some extent. A little bit
> of corrosion inhibitor in the slip joint will help maintain a good
> connnection through life... depends on the environment as to the
> necessity to to this.
>
> FWIW.
>
> Owen
> --

304. Re: passive antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 02:40:46 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <ga97v2-5lo.ln1@p400bob.personal.cox.net>
Source record: 70901

Hi Ian

The "back to back" antennas of the passive repeater are simply joined by a transmission cable that suits the antennas. ie If they are 50 ohm antennas use 50 ohm coax. Think of one of the antennas as a source of signal and the other as a load (although they work in both directions) hence the connection is simple.

So the system is;

- The passive repeater consisting of two antennas. One (yagi?) pointed at the cell tower the other (whatever it is) pointing at the place where you will be using the cellphone. If you are moving around a bit with the phone you may wish to use a reasonably wide beamwidth antenna rather than something too directive.

- If there still isnt enough signal you could mount another external antenna on the cellphone itself pointed at the passive repeayter antenna.

- Design of the antennas will also include selction of coax etc connection. You could equally as well built antenas with 300 ohm impedence and join with them 300m ohm ribbon. Are you building your own or buying antennas off the shelf? I'd actually suggest some corner reflectors as they are not as critical as long yagi's and have a more useful/wider bandwidth coverage. mr Cebik (http://www.cebik.com)has some corner reflector designs you may be able to scale to 900Mhz.

Cheers Bob

yhan wrote:
>
> how about the connection? can you direct me on how to establish
> connection b/w two antennas. say, coax cable.How to connect this to the
> two antennas?
>
> thanks & regards,
>
> ian
>

305. Re: Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 03:37:55 UTC
From: Richard Crowley <rcrowley@xpr7t.net>
Message-ID: <11i20skhrp0t34a@corp.supernews.com>
Source record: 70902
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

"Frank" wrote:
> What is the best type of "wire" for making a homemade
> car antenna to pick up FM radio. Is it copper? Aluminium?

Traditional is steel (i.e. coat-hanger wire :-)

In reality, it makes no difference except mechanically.

> What thickness or size.

It is a mechanical issue. What makes it self-supporting?
Electrically it is of no significance.

> Lenght?

Well, the middle of the FM broadcast band is ~98MHz
and 1/4 wavelength is ~28.5 inches.
http://www.csgnetwork.com/antennagenericfreqlencalc.html

306. Ferrite bar antenna for car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 05:07:54 UTC
From: wrongaddress@att.net
Message-ID: <1126242474.864784.197660@g14g2000cwa.googlegroups.com>
Source record: 70903

Any idea how to couple a ferrite loopstick antenna
to a car radio input for AM reception?

I experimeted using a 6 inch loopstick and tunning cap
with reasonable results, but I'm wondering what the
best approach is.

I connected one side of the tuned circuit to the
chassis of the radio, and other side to the antenna
input. But the tuning is very broad and I don't get
a very sharp peak when adjusting the capacitor.

It seems the car radio input is very high impedance
and doesn't load the loopstick much.

Would another winding on the loopstick of longer
length work better?

Would a JFET amplifier improve the operation?

-Bill

307. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 06:39:20 UTC
From: K4YZ <k4yz@aol.com>
Message-ID: <1126247960.516709.218910@g49g2000cwa.googlegroups.com>
Source record: 70904
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Mac wrote:
> Great work and excellent publicity...cya Mac
>
> "Charlie" <chas@aol.com> wrote in message
> news:11htogetcauugb1@news.supernews.com...
> > 1. http://www.msnbc.msn.com/id/9228945/
> >
> > --
> >
> > Charlie - AD5TH
> > www.ad5th.com

I've noted that the usual rhetoric from the "Ham Radio Will Never Get Through When Anything Fails" crowd, specifically from the patriarch of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face of MAJOR media stories in all facets of "the press" that have lauded Amateur Radio.

Even the snide remarks of some lame slime from Motorola has been laid waste.

73

Steve, K4YZ

308. Re: Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 10:24:47 UTC
From: Ed <kc7flr@arrl.INVALID.net>
Message-ID: <wKGdnV3zkfp2_7zeRVn-rw@comcast.com>
Source record: 70905
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

```
Richard Crowley wrote:
> "Frank" wrote:
>
>> What is the best type of "wire" for making a homemade
>> car antenna to pick up FM radio. Is it copper? Aluminium?
>
>
> Traditional is steel (i.e. coat-hanger wire :-)
>
> In reality, it makes no difference except mechanically.
>
>> What thickness or size.
>
>
> It is a mechanical issue. What makes it self-supporting?
> Electrically it is of no significance.
>
>> Lenght?
>
>
> Well, the middle of the FM broadcast band is ~98MHz
> and 1/4 wavelength is ~28.5 inches.
> http://www.csgnetwork.com/antennagenericfreqlencalc.html

The average car antenna is 31" in length.

Ed
```

309. Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 12:19:39 UTC
From: Paul P <p.pinyotREMOVE@REMOVEworldnet.attREMOVE.netREMOVE>
Message-ID: <v5fUe.214720$5N3.62635@bgtnsc05-news.ops.worldnet.att.net>
Source record: 70906

Gentlemen,

I am attempting to identify the tower manufacture of the tower pictured at: http://www.ppinyot.com/antenna.htm. I would like to properly design a base for it given the manufacturers specs plus perhaps pick up additional sections.

The tower seems to be of a stamped steel design (not tubular) with stamped steel cross members. It has been well maintained by the silent key's son. I gather it is about 10 to 15 years old. There is an unpainted ladder chained to one side for storage. Please do not confuse this as part of the tower.

Also if you happen to recognize the beam please Identify it too.

Unfortunately some one discarded all the paper work not knowing it's value.

Thanks Paul

paul at ppinyot dot com

KB3LZP

310. K!MAN Has a Case ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 12:21:14 UTC
From: Morris <Sherins@bellsouth.net>
Message-ID: <1126268474.457608.134880@g47g2000cwa.googlegroups.com>
Source record: 70907

He's crossed the line numerous times: doing foreign policy, defaming Riley Hollingsworth, going commercial. But he has a case.

When Ervin Duggan was FCC Chief Commissioner in the 80s, Baxter received two NALs similar to the present. Dutifully, he spent a great deal of time on his response, serving same on the FCC by regular mail. When the mail was "lost," Baxter resorted to Federal Express with no better result.

So, here was an agency, pre-Hollingsworth, that had issed two NALs and had purposely sandbagged K1MAN's answer -- with good reason.

In his answer, Baxter cited two documents of probative value. One was a letter to Kenneth Black of Ulmerton, UK, responding to his complaint, that gave K1MAN's operation a clean bill of health, equating it to W1AW bulletins. It was signed by Robert McNamara, Chief of the FCC, then-Private Radio Bureau.

The other was a declaratory order on the subject of the length of Information Bulletins with a footnote that referred to W1AW published schedules. The essence of the order was, information bulletins cannot be proscribed by time limits since they are so varied. Rightly or wrongly, Baxter has drawn his authority to come on when he does from that Order's footnote.

Small wonder the FCC disregarded K1MAN's answer, which essentially held that the issue of the NALs had already been settled in his favor. In legal argot, res judicata.

Though most hams, including myself, want to march Baxter right out of this service, justice dictates something else. The FCC, it seems to this commentator, has the burden of first addressing its previous NALs of the 80s which were never resolved.

An agency of government simply cannot throw a flurry of similar charges at a citizen, selectively unresponsive to those that can be defended, while arbitrarily limiting its attention to subsequent charges. Certainly, to the extent the previous NALs are similar, the legal principle of collaterol estoppel comes into play in Baxter's behalf.

I don't like what Baxter does any more than you. Indeed, I think he lost his way years ago. But if we're to have justice for all in these United States, then we must afford K1MAN justice. Let's not throw out the baby with the bath water.

Bob Sherin, W4ASX

311. Re: Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 14:13:43 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11i36201h5rmh7e@corp.supernews.com>
Source record: 70908
Body handling: HTML body converted to readable text

Dear Paul (KB3LZP):

Even for free, the tower and antenna appear to me to be too expensive.
You will have to pay rigging twice - once to take the tower apart (assuming
that can be done without damage) and again to erect the tower. The
connection bolts are likely to need to be replaced - especially at the
connection to the foundation.

In the end, you will have (at best) a short tower of dubious safety with
an obsolete antenna that does not cover 18 and 24 MHz bands. You will have
a better, and more safe, result to erect a new, taller tower with known
safety factors and an antenna designed to cover the present bands (above 14
MHz).

As the old Scot has said: even for free, somethings are too expensive.

73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Paul P" wrote in
message news:v5fUe.214720$5N3.62635@bgtnsc05-news.ops.worldnet.att.net...
> Gentlemen,
>
> I am attempting to identify the tower manufacture of the tower pictured
at:
> http://www.ppinyot.com/antenna.htm. I would like to properly design a
> base for it given the manufacturers specs plus perhaps pick up additional
> sections.
>
> The tower seems to be of a stamped steel design (not tubular) with stamped
> steel cross members. It has been well maintained by the silent key's son.
> I gather it is about 10 to 15 years old. There is an unpainted ladder
> chained to one side for storage. Please do not confuse this as part of the
> tower.
>
> Also if you happen to recognize the beam please Identify it too.
>
> Unfortunately some one discarded all the paper work not knowing it's
value.
>
> Thanks Paul
>
> paul at ppinyot dot com

>
> KB3LZP
>
>

312. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 14:52:46 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <tjhUe.31$z73.22@bignews5.bellsouth.net>
Source record: 70909
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"K4YZ" <k4yz@aol.com> wrote in message
news:1126247960.516709.218910@g49g2000cwa.googlegroups.com...
>
> Mac wrote:
>> Great work and excellent publicity...cya Mac
>>
>> "Charlie" <chas@aol.com> wrote in message
>> news:11htogetcauugb1@news.supernews.com...
>> > 1. http://www.msnbc.msn.com/id/9228945/
>> >
>> > --
>> >
>> > Charlie - AD5TH
>> > www.ad5th.com
>
> I've noted that the usual rhetoric from the "Ham Radio Will Never
> Get Through When Anything Fails" crowd, specifically from the patriarch
> of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face of
> MAJOR media stories in all facets of "the press" that have lauded
> Amateur Radio.
>
> Even the snide remarks of some lame slime from Motorola has been
> laid waste.
>
> 73
>
> Steve, K4YZ

Yeah! Where's all those fellers "a-standin' by to pass that 'ere
'eee-mer-gen-cee' traffic thar". We down, we off the key, we gone (thar)"
:)

J
>

313. Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 15:13:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126279011_1471@spool6-east.superfeed.net>
Source record: 70910

The latest QEX has an article by k9la: "The Impact of Load SWR
on the Efficiency of Power Amplifiers". The amplifier is designed
to drive a 50 ohm load and simulated measurements were made for
8 reflection coefficients of 0.333 with phase angles in 45 degree
increments.

One thing I don't understand. When driving a 100 ohm load, the
drain current is 33 amps and the efficiency is 62%. When driving
a 25 ohm load, the drain current is 12 amps and the efficiency
is 83%.

The amp is a Class E/F design from Jan/Feb 2004 QEX. Why would
the drain current fall when the load is decreased from 100 ohms
to 25 ohms?
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

314. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 15:28:46 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <wJednTmBu-OxN7zeRVn-qQ@web-ster.com>
Source record: 70911

Cecil Moore wrote:
> The latest QEX has an article by k9la: "The Impact of Load SWR
> on the Efficiency of Power Amplifiers". The amplifier is designed
> to drive a 50 ohm load and simulated measurements were made for
> 8 reflection coefficients of 0.333 with phase angles in 45 degree
> increments.
>
> One thing I don't understand. When driving a 100 ohm load, the
> drain current is 33 amps and the efficiency is 62%. When driving
> a 25 ohm load, the drain current is 12 amps and the efficiency
> is 83%.
>
> The amp is a Class E/F design from Jan/Feb 2004 QEX. Why would
> the drain current fall when the load is decreased from 100 ohms
> to 25 ohms?

The output filter of an amplifier can act like a 1/4 wave (or 3/4 wave) transmission line, so a high impedance at the antenna terminal would look like a low impedance at the final, and visa-versa. This extends to the time-delay properties: older oscilloscopes with time delay used long L/C filters operated way below cutoff to simulate even longer stretches of transmission lines.

In fact, a filter that looks like this

```
___
--------o---UUU---o--------
| |
--- ---
--- ---
| |
| |
=== ===
GND GND
created by Andyï¿½s ASCII-Circuit v1.24.140803 Beta www.tech-chat.de
```

with all reactances equal to the design impedance (say 50 ohms) at the design frequency is _called_ a 1/4-wave filter. Put two of them together and you get a 1/2 wave filter:

```
___ ___
--------o---UUU---o---UUU---o------
| | |
--- --- ---
C --- 2C --- C ---
| | |
```

```
| | |
=== === ===
GND GND GND
created by Andyï¿½s ASCII-Circuit v1.24.140803 Beta www.tech-chat.de
```

Stick on another section and it'll act like a 3/4 wave line, etc.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

315. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 15:52:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126281356_1525@spool6-east.superfeed.net>
Source record: 70912

Tim Wescott wrote:

> Cecil Moore wrote:
>> The amp is a Class E/F design from Jan/Feb 2004 QEX. Why would
>> the drain current fall when the load is decreased from 100 ohms
>> to 25 ohms?
>
> The output filter of an amplifier can act like a 1/4 wave (or 3/4 wave)
> transmission line, ...

I should have described the output circuitry. It's a push-pull
LC tank circuit with DC supplied by the coil center-tap. The
output is just a link coupler. The low-pass filter is a single
series L and single C to ground.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

316. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 16:43:21 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126284201.468452.155920@g44g2000cwa.googlegroups.com>
Source record: 70913
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

K4YZ wrote:
> Mac wrote:
> > Great work and excellent publicity...cya Mac
> >
> > "Charlie" <chas@aol.com> wrote in message
> > news:11htogetcauugb1@news.supernews.com...
> > > 1. http://www.msnbc.msn.com/id/9228945/
> > >
> > > --
> > >
> > > Charlie - AD5TH
> > > www.ad5th.com
>
> I've noted that the usual rhetoric from the "Ham Radio Will Never
> Get Through When Anything Fails" crowd, specifically from the patriarch
> of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face of
> MAJOR media stories in all facets of "the press" that have lauded
> Amateur Radio.

No waviering here. The ARS proides usefull service, mostly in keeping
H&W stuff off the plate of those with better things to do.

It does not properly replace the system used by the cops as witness the
keystone cops bummbling we see and here about

the ARS is not saving the day or saving civilation, it is hellp people
lessen the impact of the disaster, what I have been saying all along
>
> Even the snide remarks of some lame slime from Motorola has been
> laid waste.
>
> 73
>
> Steve, K4YZ

317. Re: Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 17:45:39 UTC
From: Mike <no@email.no>
Message-ID: <7TjUe.7961$Ix4.2646@okepread03>
Source record: 70914
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

This site has some interesting antennas and info:

http://www.ccrane.com/

318. Re: Altenate Plan # 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 18:05:10 UTC
From: Fedthecat <Fedthecat@aol.com>
Message-ID: <1126289110.198530.24710@g43g2000cwa.googlegroups.com>
Source record: 70915

Wayne.
I have read your other newsgroup posts and I have to tell you, this was one of your better postings. I realize this doesn't say much for your other posts but...well, I guess its better than saying nothing at all.

So, Wayne, what do you actually do when your not writting meaningless jibberish? Have you ever actually helped anyone? Have you ever even asked a serious question? Do you have any place in your head where curiosity or wonder might hang around or is it all one big witroom? I'm actually quite surprised that anyone posts when they see that you are around because your one clever answer usually answers everyones questions .

319. Re: BBB Complaint # 414840 against Bozak Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 18:40:08 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <_FkUe.389$GK2.384@lakeread07>
Source record: 70916

anon wrote:

>
> http://members.tripod.com/~Bozak/HOMEPAGE.HTM
>
>
>
heh. he's go 2 dozen popups on that site as well. oh well, he wants my biz, he'll have to do better (and since he appears to be a moron, I won't do biz with him).

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

320. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 18:43:49 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <rJkUe.390$GK2.111@lakeread07>
Source record: 70917

wizard12342002@yahoo.com wrote:

> Suppose I have an antenna some distance from the house. I run the
> transmission line down from the antenna, bury the line, run it
> underground to the house, place a lightning arrestor and ground just
> outside the house, then run the transmission line up the side of the
> house to the operating position on the second floor. Does anyone see a
> problem with this arrangement? I can't imagine that a lightning would
> "want" to travel back up toward the operating position when it has a
> good ground (at the arrestor) closer to the antenna.
>
> -JJ

you would be better to place a lightning arrestor at the tower (and ground the tower as well) and perhaps 1 or 2 along the coax to your house (all ground rodded). This method is referred to as "defense in depth".

its how I did it with an old CB setup on a large lot 20 years ago. saved a lot of heartache (though I did have to replace coax a bit more often).

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

321. Re: Amateur Radio Assistance to Katrina Disaster!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 18:50:00 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <fPkUe.391$GK2.24@lakeread07>
Source record: 70918
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

laborkei wrote:

> I have been watching wwltv.com and wdsutv.com on the Internet.
> I keep hearing about the lack of emergency services to communicate.
> Does anyone know if any Amateur Operators are being engaged to assist?
>
>
> --
lots of them.
even showed up on fox news and nbc.

unfortunately, the DHS/FEMA are trying very hard to keep everything on their
plate (thus even hams with the American red cross are being told to pound
sand in some cases).

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

322. Re: K!MAN Has a Case ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 19:04:41 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <M5Wdnf2Td8txQbzeRVn-oA@comcast.com>
Source record: 70919

Morris wrote:
> He's crossed the line numerous times: doing foreign policy, defaming
> Riley Hollingsworth, going commercial. But he has a case.
>
> SNIPPED
>
>
> Though most hams, including myself, want to march Baxter right out of
> this service, justice dictates something else. The FCC, it seems to
> this commentator, has the burden of first addressing its previous NALs
> of the 80s which were never resolved.
>
> An agency of government simply cannot throw a flurry of similar charges
> at a citizen, selectively unresponsive to those that can be defended,
> while arbitrarily limiting its attention to subsequent charges.
> Certainly, to the extent the previous NALs are similar, the legal
> principle of collaterol estoppel comes into play in Baxter's behalf.
>
> SNIPPED
>
> Bob Sherin, W4ASX
>
Based on the cited NALs and logic the conclusion can be reasonably drawn
that we have 600,000 licensees who have a 'right' to follow K1MANs
example. Restated: CHAOS and Anarchy abound.

I don't believe that is the intent of the amateur radio 'PRIVILEGE'.

323. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 19:11:24 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <ifKdnbOqEbbiQ7zeRVn-tA@comcast.com>
Source record: 70920

Cecil Moore wrote:

> The latest QEX has an article by k9la: "The Impact of Load SWR
> on the Efficiency of Power Amplifiers". The amplifier is designed
> to drive a 50 ohm load and simulated measurements were made for
> 8 reflection coefficients of 0.333 with phase angles in 45 degree
> increments.
>
> One thing I don't understand. When driving a 100 ohm load, the
> drain current is 33 amps and the efficiency is 62%. When driving
> a 25 ohm load, the drain current is 12 amps and the efficiency
> is 83%.
>
> The amp is a Class E/F design from Jan/Feb 2004 QEX. Why would
> the drain current fall when the load is decreased from 100 ohms
> to 25 ohms?

How has the QL changed as a function of load? How has the power output changed from 110 to 25 ohms load? Have you calculated the effective load lines for the amplifiers?

We need a lot more information.

I don't subscribe to QEX so I don't have the circuit available.

324. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 19:33:34 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <dfso2g$b7h$1@ctb-nnrp2.saix.net>
Source record: 70921
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"K4YZ" <k4yz@aol.com> wrote in message
news:1126247960.516709.218910@g49g2000cwa.googlegroups.com...
>
> Mac wrote:
>> Great work and excellent publicity...cya Mac
>>
>> "Charlie" <chas@aol.com> wrote in message
>> news:11htogetcauugb1@news.supernews.com...
>> > 1. http://www.msnbc.msn.com/id/9228945/
>> >
>> > --
>> >
>> > Charlie - AD5TH
>> > www.ad5th.com
>
> I've noted that the usual rhetoric from the "Ham Radio Will Never
> Get Through When Anything Fails" crowd, specifically from the patriarch
> of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face of
> MAJOR media stories in all facets of "the press" that have lauded
> Amateur Radio.
>
> Even the snide remarks of some lame slime from Motorola has been
> laid waste.
>
> 73
>
> Steve, K4YZ
>

Methinks a very strongly worded letter from ARRL to the head honcho at
Motorola might be a good idea.

73
and special kudos to all those volunteers.
ZR3RC

325. Re: assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 19:59:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dfspif$44i$1@engnntp2.cig.mot.com>
Source record: 70924

The original Windom *was* an intentionally off center fed multi-band antenna. Anybody have info on the Windom from the 40's 40's. Dad used one, but I don't know what he did.

Steve K,9'D;C.I
"RB" <rbig@bellsouth.nospam.net> wrote in message news:AH_Se.9378$VU6.3783@bignews5.bellsouth.net...
> Thanks.
>
> I think it's one of those deals that goes: yes, there is an imbalance
> situation created. But, it's not significant in the big picture.
>
> I can live with that!
>
>

326. Re: I wonder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 20:01:52 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dfspng$49k$1@engnntp2.cig.mot.com>
Source record: 70827
Cross-posted to:
rec.music.progressive,rec.music.rock-pop-r+b.1950s,rec.radio.amateur.antenna,rec.autos.makers.chrysler,rec.roller-coaster

```
... Filters? Filters? We don't need no stinkin' filters...

Bah dum dum... Tshhhhhhh

Steve N.

"Ham op" <hamop@comcast.net> wrote in message
news:6oWdnQUlhN8CH73eRVn-ug@comcast.com...
>
>
> God wrote:
>
> > "Daniel J. Stern" <dastern@127.0.0.1> wrote in message
> > news:Pine.GSO.4.58.0509052317440.6886@alumni.engin.umich.edu...
> >
> >>On Mon, 5 Sep 2005, Wayne P. Muckleroy wrote:
> >>
> >>
> >>Well, me, I'm reading this from RAMC, and so I wonder if God and Allah
and
> >>Jesus and that lot use K&N or Fram filters.
> >
> >
> >
> > Yes, I do use Fram filters.
>
> God has spoken! So, end the thread!
> >
> >
>
```

327. Re: Dummy Load experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 20:09:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dfsq57$49m$1@engnntp2.cig.mot.com>
Source record: 70925

"Ham op" <hamop@comcast.net> wrote in message
news:M7GdnSM_N5cs1oLeRVn-1Q@comcast.com...
> My dummy load is 100% enclosed in oil AND a 1 gallon can. This is pretty
> tight. I estimate leakage at around -120 to - 130 dB.
>
> I run about 10 to 11 feet of coax from my transmitter to the low pass
> filter to the tuner to the antenna switch to the dummy load. The coax is
> good quality 9913. BUT, it uses a woven copper braid as the overbraid.
> The braid has a leakage impedance of typically 0.020 + jw10^-8 ohms. The
> inductive term means that the little holes in the braid 'LEAK' rf. At
> VHF the coax isolation could be -60 to -80 dB.

Ahhh! You stole' my thunder. Coax typically only has 60-80 dB isolation at
best and that is if it is made well and connectors are on well. Before it
even gets to the coax connector of the radio, there'll be some radiation.
73, Steve, K9DCI

328. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 20:14:25 UTC
From: "LenAnderson@ieee.org" <LenAnderson@ieee.org>
Message-ID: <1126296865.329405.72430@g43g2000cwa.googlegroups.com>
Source record: 70922
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

From: "K4YZ" on Thurs 8 Sep 2005 23:39

>Mac wrote:
>> Great work and excellent publicity...cya Mac
>>
>> "Charlie" <chas@aol.com> wrote in message
>> news:11htogetcauugb1@news.supernews.com...
>> > 1. http://www.msnbc.msn.com/id/9228945/
>> >
>> > --
>> >
>> > Charlie - AD5TH
>> > www.ad5th.com
>
> I've noted that the usual rhetoric from the "Ham Radio Will Never
>Get Through When Anything Fails" crowd, specifically from the patriarch
>of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face of
>MAJOR media stories in all facets of "the press" that have lauded
>Amateur Radio.

"Patriarch?!?" :-) Not I, never having met in-person any of
those against the mighty warrior of "seven hostile actions,"
Dudly the Unconquerable...aka Dudly the Unhumbleable. :-)

"Waned?!?" :-) Life goes on 2000 miles away from the Katrina
hurricane devastation.

Ahem...the "MAJOR media" are reporting as much as possible about
the Gulf Coast damage. That is of considerable quantity.

Reporters, journalists, telecasters are all on-the-scene covering
an enormous area of extensive damage with many, many "human
interest" stories appearing. Anybody with a working TV set can
see/hear that; anybody with a working BC receiver can hear that.
Anyone able to read a major newspaper can read that. Anyone with
a working PC and an Internet connection can find that out.

What Dudly is doing in here is just ordinary FLAMING because he
is obsessed with FIGHTING. [wannabe-warriors get that way...]
Yes, stories have been filed with newsservices on amateur radio
doing their part in aiding the relief effort, but are those
relief actions of amateurs of any notable effect on society as
a whole? Health and welfare messages have not been shown to "save
lives" on any large scale...a large scale such as a MILLION

displaced and homeless citizens in the Gulf states affected by Katrina. Perhaps nearer to two MILLION people displace, homeless, or dead when the tallies on human lives is more complete. The scale of damage is too vast, too shattering to millions more.

Thousands and thousands of volunteers and paid workers are very busy at the moment, doing many things of DIRECT AID to the homeless and displaced, all WITHOUT any direct "need" to do radio communications about "health and welfare messages." That's important work. MOST (very nearly all) of that work can be done WITHOUT a lot of radio communications. Coordination of effort does require communications of some kind, but the "coordination" of ALL agencies, paid and volunteer, were simply NOT prepared to deal with the magnitude of damage and destruction that happened. That includes amateur radio, folks, whether it smarts your little egos or not. Did anyone really think that a few dozen hams could really make a "difference" by sending health and welfare messages from millions to other millions? No doubt the self-proclaimed amateur patriots far from the disaster scene were happy as larks to see the tiniest factoid of their Great Help to the victims of hurricane Katrina. They have waved their banners, cheered as loudly (and abusively) as possible, pinned invisible medals of valor to their equally invisible uniforms of service they wear in the newsgroups.

But, things eventually get sorted out and the REAL coordinators can organize things, start to do the REAL rescue work such as pumping out all those millions of acre-feet of flood water, finding shelter and food and sanitation for a million or more displaced and homeless people, trying to restore a large city and many smaller cities along the Gulf. The REAL health workers have been on the scene, pulling out bodies of the dead, measuring the countryside for disease, taking steps to control insect-borne diseases, preparing for the epidemics that might ravage the survivors. REAL work, down on the nitty-gritty level, done by those who KNOW what they are doing even though they are over-whelmed by the enormity of the task.

> Even the snide remarks of some lame slime from Motorola has been
>laid waste.

"Lame slime?" :-) While some consider Public Relations folks in that category, that's just inflamatory, ignorant rhetoric from a nurse who has no provable record of past "experience" in either radio communications or the electronics industry...a wannabe-warrior who can only "fight" by cursing others who don't agree with him. Disreputable activity.

Such inflammatory curse words are only in the minds of a few who have NO REAL CONCEPT of the many and various communications systems used by the "infrastructure." Motorola has been one of the leaders in radio since World War 2...surviving when Hallicrafters and Zenith

and a number of other electronics industry biggies of the Chicago area FAILED, dissolved, went bankrupt, became DEFUNCT.

The electronics industry of the United States IS HELPING, just as it did after the NYC disaster of 11 Sep 01, shipping in professional radio-electronics equipment from handhelds to "WiFi" and "WiMax" whole systems to restore the BIG communications needs along the Gulf coast. The evidence IS there in the "MAJOR news", in the newspaper business section, in the press releases of major electronics industry corporations. It isn't carried on the amateur "news" from the ARRL...such is counter-productive to promoting the ARRL and furthering the amateur mystique that some need to justify their imaginary glory of having an amateur radio hobby.

The disaster of hurricane Katrina is of unparalleled proportions and ALL humane-thinking citizens can do their part, however big, however small. There is NO AID given to anyone or anything by continuing an unrelenting stream of personal insults towards others they know nothing of nor nothing about.

LenAnderson@ieee.org

329. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 20:16:55 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dfsqjn$4fd$1@engnntp2.cig.mot.com>
Source record: 70826

I shouldn't, but will. You don't say, but I think you are puzzled by a decreasing load impedance causing a decrease in collector current. I'd have to think about it, but I'd first Try modeling that LC filter at resonance to see if it gives an inverse function like the 1/4 wave line.
A "gut" reaction tells me that a decreasing collector current for *either* an increased or decreased load Z would not be a surprise...

Steve K9DCI

"Cecil Moore" <mycall@arrl.net> wrote in message news:1126281356_1525@spool6-east.superfeed.net...
> Tim Wescott wrote:
>
> > Cecil Moore wrote:
> >> The amp is a Class E/F design from Jan/Feb 2004 QEX. Why would
> >> the drain current fall when the load is decreased from 100 ohms
> >> to 25 ohms?
> >
> > The output filter of an amplifier can act like a 1/4 wave (or 3/4 wave)
> > transmission line, ...
>
> I should have described the output circuitry. It's a push-pull
> LC tank circuit with DC supplied by the coil center-tap. The
> output is just a link coupler. The low-pass filter is a single
> series L and single C to ground.
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

330. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 20:36:12 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <0nmUe.9902$FW1.9234@newsread3.news.atl.earthlink.net>
Source record: 70923
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...
>
> K4YZ wrote:
>> Mac wrote:
>> > Great work and excellent publicity...cya Mac
>> >
>> > "Charlie" <chas@aol.com> wrote in message
>> > news:11htogetcauugb1@news.supernews.com...
>> > > 1. http://www.msnbc.msn.com/id/9228945/
>> > >
>> > > --
>> > >
>> > > Charlie - AD5TH
>> > > www.ad5th.com
>>
>> I've noted that the usual rhetoric from the "Ham Radio Will Never
>> Get Through When Anything Fails" crowd, specifically from the patriarch
>> of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face of
>> MAJOR media stories in all facets of "the press" that have lauded
>> Amateur Radio.
>
> No waviering here. The ARS proides usefull service, mostly in keeping
> H&W stuff off the plate of those with better things to do.
>
> It does not properly replace the system used by the cops as witness the
> keystone cops bummbling we see and here about
>
> the ARS is not saving the day or saving civilation, it is hellp people
> lessen the impact of the disaster, what I have been saying all along
>>
>> Even the snide remarks of some lame slime from Motorola has been
>> laid waste.
>>
>> 73
>>
>> Steve, K4YZ
>

As usual our resident dissident has no idea what he is talking about. Here
in Alabama we have provided the operators to man the shelters for the Red
Cross on the Gulf Coast. They have, and ARE providing the ONLY
communications between the shelters and Red Cross HQS in Montgomery.
```

The Alabama Net and other groups are providing links further down the line.

Dan/W4NTI

331. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 21:30:13 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126301413.743957.191760@g14g2000cwa.googlegroups.com>
Source record: 70828
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...
> >
> > K4YZ wrote:
> >> Mac wrote:
> >> > Great work and excellent publicity...cya Mac
> >> >
> >> > "Charlie" <chas@aol.com> wrote in message
> >> > news:11htogetcauugb1@news.supernews.com...
> >> > > 1. http://www.msnbc.msn.com/id/9228945/
> >> > >
> >> > > --
> >> > >
> >> > > Charlie - AD5TH
> >> > > www.ad5th.com
> >>
> >> I've noted that the usual rhetoric from the "Ham Radio Will Never
> >> Get Through When Anything Fails" crowd, specifically from the patriarch
> >> of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face of
> >> MAJOR media stories in all facets of "the press" that have lauded
> >> Amateur Radio.
> >
> > No waviering here. The ARS proides usefull service, mostly in keeping
> > H&W stuff off the plate of those with better things to do.
> >
> > It does not properly replace the system used by the cops as witness the
> > keystone cops bummbling we see and here about
> >
> > the ARS is not saving the day or saving civilation, it is hellp people
> > lessen the impact of the disaster, what I have been saying all along
> >>
> >> Even the snide remarks of some lame slime from Motorola has been
> >> laid waste.
> >>
> >> 73
> >>
> >> Steve, K4YZ
> >
>
> As usual our resident dissident has no idea what he is talking about. Here
> in Alabama we have provided the operators to man the shelters for the Red

> Cross on the Gulf Coast. They have, and ARE providing the ONLY
> communications between the shelters and Red Cross HQS in Montgomery.

did you you bother to read my remarks before lighting up the flame
thrower?

But just How big is Mntgomery I was though there once long ago, and
thought it pretty small. But any reason they could not use GRMS or even
CB to make those links? I don't see any but you might know better than
I.

as to your other points.

One am unable judge for myself directly of course because of rules you
personaly have supported for years.

Two I said most com seemed to that most were H&W, Indeed given the size
of Montgomery could not they diespense with anything but messagers? Not
syaing they should but couldn't they.

The Comms provided by hams are important and of value, But I see no
report of (let alone have one confirmed) use of ham radio that rises to
the level of critcal

>
> The Alabama Net and other groups are providing links further down the line.

and what are they passing?

what vital message are they conveying?
>
> Dan/W4NTI

332. help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 21:50:13 UTC
From: petercc@care2.com
Message-ID: <1126302613.449867.275680@g47g2000cwa.googlegroups.com>
Source record: 70829

I am looking to set up a laptop on a boat that will receive wifi
signals. I need to install a twenty foot cable from the antenna to a
Proxim orinoco 8011b/g gold wireless card. I have found the cable but
don't know what antenna to attach to it as I want to minimize loss of
signal and I believe I have to get a certain length antenna to
synchronize with the cable length to do this. Does anyone know what the

right size antenna should be? Also, any suggestions on where to pick
one
up?
I found the cable here
http://sharperconcepts.zoovy.com/product/YSC-CA-RSPNMAXXX

333. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-09 23:03:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <af44i11v0c7ctk7i01dt8622vg1u8uibc2@4ax.com>
Source record: 70830
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 9 Sep 2005 14:30:13 -0700, "an_old_friend" <konstans@hotmail.com>
wrote:
>> > No waviering here. The ARS proides usefull service, mostly in keeping
>> > H&W stuff off the plate of those with better things to do.

Mostly? This is a left-handed complement in light of the news.

>> > It does not properly replace the system used by the cops as witness the
>> > keystone cops bummbling we see and here about

In fact it did replace the system used by the cops, and witnesses
abound.

>> > the ARS is not saving the day or saving civilation, it is hellp people
>> > lessen the impact of the disaster, what I have been saying all along

Well, until you were crossposted here, we have been entirely unaware
of what you have been saying all along. That aside, and more to the
point about your comment about ARS not saving the day, there are a
half dozen FEMA workers who would humbly admit otherwise after they
were rescued through Ham operator efforts.

>But just How big is Mntgomery I was though there once long ago, and
>thought it pretty small. But any reason they could not use GRMS or even
>CB to make those links? I don't see any but you might know better than
>I.

From your vantage deep in Virginia, I would think that Montgomery
would be quite cosmopolitan. Going beyond that however, such
suggestions as offered above seem to miss the point of HF
communications.

>The Comms provided by hams are important and of value, But I see no
>report of (let alone have one confirmed) use of ham radio that rises to
>the level of critcal

You should consider your choices made in informing yourself.

To Others,

I've rummaged up at least a couple of dozen references to the Ham
activities from a variety of news outlets (and not just the bobbing
heads of salacious cable TV). It would do us all well to stockpile
such commendations to "remind" authorities who so quickly forget in
the face of those who can stuff their pockets with money-for-airspace.

73's
Richard Clark, KB7QHC

334. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 00:12:53 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <9ypUe.138$R9.55@trnddc02>
Source record: 70831

<petercc@care2.com> wrote in message
news:1126302613.449867.275680@g47g2000cwa.googlegroups.com...
>I am looking to set up a laptop on a boat that will receive wifi
> signals. I need to install a twenty foot cable from the antenna to a
> Proxim orinoco 8011b/g gold wireless card. I have found the cable but
> don't know what antenna to attach to it as I want to minimize loss of
> signal and I believe I have to get a certain length antenna to
> synchronize with the cable length to do this. Does anyone know what the
>
> right size antenna should be? Also, any suggestions on where to pick
> one
> up?
> I found the cable here
> http://sharperconcepts.zoovy.com/product/YSC-CA-RSPNMAXXX
>

Hi Petercc

I have some interest in a similar project with WiFi. Forgive me if I'm
not understanding what you want to do.

Are you sure that card will fit in your lap top? All the lap top PCMCIA
WiFi cards I've seen, that have a coax connector, use a much smaller
connector.
You didnt indicate if you know from which direction the WiFi signal is
coming from. does the marine antenna need to be omniazimuth?
Are you willing to accept the signal loss associated with the 20 feet of
coax?

My weather conditions are not as extreme as your marine environment. I
have installed a wireless Ethernet bridge at the antenna and connected that
to the computer with CAT 5 to alleviate the line loss problem at 2.4 GHz.

E-mail me if you want any info and/or pictures of what I'm messing with.

Jerry

335. Re: assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 01:00:45 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <PaqdnZ2dnZ3NabfLnZ2dnfytv96dnZ2dRVn-y52dnZ0@comcast.com>
Source record: 70832

Steve Nosko wrote:

> The original Windom *was* an intentionally off center fed multi-band
> antenna. Anybody have info on the Windom from the 40's 40's. Dad used
> one, but I don't know what he did.
>
>
> Steve K,9'D;C.I

YEP!!

134 feet long.

Fed 46 feet from one end with a SINGLE WIRE [NO COAX, NO TWIN LEAD, NO BALUN, etc.]. Very good tuning system required. Allegedly something close to 600 ohms at feedpoint. More wishful thinking than reality. [In those days people were not obsessed with VSWR = 1.000001 to 1.]

Some feed lengths produced a 'hot' key or mike. Changed length of feedline to get rf out of shack. X

80, 40, 20, 10 meters.

All current model 'Windoms' are true fakes !!!

336. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 01:17:46 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126315066.262040.67480@g47g2000cwa.googlegroups.com>
Source record: 70833
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:
> On 9 Sep 2005 14:30:13 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
> >> > No waviering here. The ARS proides usefull service, mostly in keeping
> >> > H&W stuff off the plate of those with better things to do.
>
> Mostly? This is a left-handed complement in light of the news.

I have seencoverage of H&W traffic on the news
>
> >> > It does not properly replace the system used by the cops as witness the
> >> > keystone cops bummbling we see and here about
>
> In fact it did replace the system used by the cops, and witnesses
> abound.

Cops dispatched by Ham radio? I don't think so
>
> >> > the ARS is not saving the day or saving civilation, it is hellp people
> >> > lessen the impact of the disaster, what I have been saying all along
>
> Well, until you were crossposted here, we have been entirely unaware
> of what you have been saying all along. That aside, and more to the
> point about your comment about ARS not saving the day, there are a
> half dozen FEMA workers who would humbly admit otherwise after they
> were rescued through Ham operator efforts.

well that is news
>
> >But just How big is Mntgomery I was though there once long ago, and
> >thought it pretty small. But any reason they could not use GRMS or even
> >CB to make those links? I don't see any but you might know better than
> >I.
>
> From your vantage deep in Virginia, I would think that Montgomery
> would be quite cosmopolitan. Going beyond that however, such
> suggestions as offered above seem to miss the point of HF
> communications.

Virgina? I don't live in Virgina

but in responf to a quip about the shelters in Montgomery being linked
by Ham radio HF would hardly seem likely to be involved

>
> >The Comms provided by hams are important and of value, But I see no
> >report of (let alone have one confirmed) use of ham radio that rises to
> >the level of critcal
>
> You should consider your choices made in informing yourself.

Auf Anglish Bitte?

>
> To Others,
>
> I've rummaged up at least a couple of dozen references to the Ham
> activities from a variety of news outlets (and not just the bobbing
> heads of salacious cable TV). It would do us all well to stockpile
> such commendations to "remind" authorities who so quickly forget in
> the face of those who can stuff their pockets with money-for-airspace.

Indeed we should, we should also make sure they are accurate
>
> 73's
> Richard Clark, KB7QHC

337. lf to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 02:01:27 UTC
From: TRABEM <>
Message-ID: <9df4i1546l564jt5uc22lp8gva22v9qdgi@4ax.com>
Source record: 70834
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I need an LF to 30 Khz preselector (passive) for a homebrewed receiver I'm building. I have most of the details worked out, but I am stuck on the preselector design.

I want one band to cover 50 Khz to 500 Khz (or 1 Mhz). The second band would be 1 Mhz to 30 Mhz. 50 ohm input with moderate Q (don't want to have to retune it every 100 Khz. The LF unit can be very high Q, peaking it every few Khz is ok as most of the signals in that range are narrowband signals anyway. Input impedance is standard 50 ohms.

I'd REALLY like to have one assembly do the entire job, but it appears to be a tall order as that's quite a wide range to cover with one tuned circuit.

Google returns to many hits even if I narrow down the search parameters, I tried google.

It appears I need to use some sort of permeability tuned variable inductor in conjunction with a variable cap. Have no idea how to go about this or where to buy permeability tuned inductors.

Any suggestions?

T

338. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 02:21:02 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96CCC4F23BF9Cspectrumhogstarbandn@207.106.92.175>
Source record: 70835

> I am looking to set up a laptop on a boat that will receive wifi
> signals. I need to install a twenty foot cable from the antenna to a
> Proxim orinoco 8011b/g gold wireless card. I have found the cable but
> don't know what antenna to attach to it as I want to minimize loss of
> signal and I believe I have to get a certain length antenna to
> synchronize with the cable length to do this. Does anyone know what the
>
> right size antenna should be? Also, any suggestions on where to pick
> one up?

I'd suggest you post your question to some of the Internet wireless or networking newsgroups. I've seen questions similar to yours posted on some of them recently, such as, comp.os.linux.networking . I've also seen some good antenna sources given in posted responses there.

Ed

339. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 06:33:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hqs4i1tdb3tft3jd29fcjjj4mo3dekhm9i@4ax.com>
Source record: 70836
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 9 Sep 2005 18:17:46 -0700, "an_old_friend" <konstans@hotmail.com>
wrote:

>> You should consider your choices made in informing yourself.
>
>Auf Anglish Bitte?

All Things Considered, August 30, 2005 ï¿½
While cell phones and other communication networks were demolished
by Hurricane Katrina, a group of radio operators volunteering with the
Red Cross have been instrumental in assistance and relief efforts.

NORTH LITTLE ROCK -
... Temple is president of the Central Arkansas Radio Emergency Net.
When Hurricane Katrina knocked over cell phone towers and utility
lines, ham radio became a key communications tool.
Temple says ham radio operators have acted as go-betweens for
Louisiana hospitals needing help and Arkansas aid workers.

Ham radio operators provide vital link after storm
Thursday September 01, 2005
ROANOKE, Va. (AP) ... Then an urgent voice sliced through the static,
clear as a bell.
``I have a diabetic, 80 years old, out of food and water for the
last 24 hours,'' it said.
An elderly woman from Bush, La., was stranded in her home after
Hurricane Katrina and desperate for food and insulin. Somebody sent
the message out over the air. Other voices picked up the call and it
was relayed all across America until, with luck, it would reach a
local rescue squad.

Ham Radio Operators Rise to Occasion of Another Disaster
BY CHUCK McCUTCHEON
c.2005 Newhouse News Service
Approximately 250 operators are in Louisiana working with the
American Red Cross and state emergency response officials, with others
waiting to enter the state when floodwaters recede ....
Sept. 1, 2005

Local Woman Helping Hurricane Victims Via Ham Radio
Aug 30, 2005, 08:00 PM
A woman in central Indiana took control of one of the most powerful
emergency networks anywhere to help those effected by Hurricane
Katrina.

Somehow, somewhere in the middle of all the hurricane mess, someone is broadcasting to the world probably operating on battery power and a makeshift antenna.
Tuesday night, Indiana handled the call.
For an hour, Peggy McNary took the post of "controller" of SATERN, Salvation Army Team Emergency Radio Network.... "A family called out on a cell phone, trapped in an attic. They got word to an amateur radio operator somehow just before they lost contact, SATERN was able to contact the Coast Guard and that family was rescued," she explained.
The network claims a hand in dozens of Katrina rescues already and will operate until there is no need for more.

Local ham-radio operators help rescue effort
By Rocky Scott
DEMOCRAT STAFF WRITER
Tallahassee ham-radio operators took part in the daring helicopter rescue Friday of about 1,500 patients and staff from two New Orleans hospitals besieged by darkness, dank water and gunfire.
...
Looting and gunfire erupted and 100,000 stranded, scared residents became a force ready to spill into anarchy.
Enter the Tallahassee Amateur Radio Club, Florida Division of Emergency Management and some old-fashioned ingenuity.
State Emergency Management officials suggested Hall contact the local ham radio club to solve the communications dilemma.
Urged by rapidly rising water - 8 feet deep in places - and the growing knowledge that New Orleans had become a drowning pool, the ham operators fashioned a satellite reception device atop an 8-story building in downtown Tallahassee.
Then three of them - Theo Titus, Gene Floyd and Bill Schmidt - all boarded a helicopter in Tallahassee Wednesday and headed for New Orleans.
Atop the garage at Tulane, they set up a generator-powered ham radio with a satellite uplink.
By Tuesday afternoon, the choppers were up and running, and Hall and his co-workers in Tallahassee were able to give directions to pilots....

Reported by Justin Cavey
Ham Radio Operators Invaluable in Times of Disaster

Volunteer Ham Radio Operators to Receive Grant To Enhance Emergency Communications in Hurricane Region
WASHINGTON, D.C. ï¿½ The Corporation for National and Community Service today announced a supplemental grant of $100,000 to the American Radio Relay League (ARRL) to support volunteer emergency communication operators who are helping out in Gulf Coast states affected by Hurricane Katrina.
"With the breakdown of regular communication channels caused by the storm, the services provided by volunteer ham radio operators is

vitally important, both to organizations and to individuals seeking to connect with loved ones," said David Eisner, CEO of the Corporation. "Weï¿½re pleased to be able to provide this extra assistance at this critical time."

Ham radio operators play role in communication
By TERESA RESSEL\Daily Journal Staff Writer
Amateur (or ham) radio operators are playing a major role in communications in the states hit hard by Hurricane Katrina. The wind and rain hampered other means of communication, so it was estimated as of Wednesday that 250 Amateur Radio Emergency Service members have been working with relief organizations and emergency management agencies to assist with communication.

Ham radio helps in emergencies
Updated: 9/3/2005 11:30 AM
By: Adam Shub, News 14 Carolina
SHELBY, N.C. -- Amateur radio operators are banding together to help the victims of Hurricane Katrina.

Ham radio provides a link between hurricane victims and loved ones in West Michigan
(Grand Rapids, September 1, 2005, 8:06 a.m.) Getting in touch with anyone in the hurricane-stricken areas is almost impossible. Telephone poles and cell phone towers have been knocked down or washed away. The lack of power means no e-mail, either. But a group of people in West Michigan has a way to get through.

Ham Radio Operators Provide Lifeline During Disaster
Radio Operators Can Communicate In Stricken Areas
POSTED: 5:51 pm EDT September 1, 2005
MEREDITH, N.H.
... ham radio operators from New Orleans to Utah coordinated the effort to guide a Coast Guard helicopter to rescue more than a dozen trapped people.

As usual, ham radio operators help sustain wide-ranging relief efforts
By Andrea Kelly
ARIZONA DAILY STAR
When all else fails, it's ham radio to the rescue. Across Arizona, ham radio operators are helping sustain Hurricane Katrina relief efforts by helping storm-torn communities communicate with rescue workers....

HAM radio operators reach out
Some messages have been sent
WJRT By Joel Doepker
Saginaw - (09/01/05)
...
In one case, a victim in New Orleans called a family member outside the area for help. That person then contacted an amateur radio

operator who contacted rescue crews, who saved more than a dozen people from a rooftop.

Relief Effort
Many Pleas For Aid Go Out
Rescue Teams and Clean Water Needed
By Elizabeth Williamson
Washington Post Staff Writer
Thursday, September 1, 2005; Page A21
... "I was just a relay kind of station. The message got transmitted on into the Coast Guard, who handled the rescue," said Fillinger, 78, whose ham radio unit is based in his hilltop home in Portland, Ore. "By the evening, we got confirmation that the group had been rescued," including an 81-year-old woman that Fillinger knows only as Helen.

Ham radio volunteers help re-establish communications after Katrina
Some 700 operators are already at work, with more on the way
News Story by Todd R. Weiss
... Many of the volunteers sprung into action even before the storm struck the Gulf Coast, broadcasting as part of a "Hurricane Watch-Net" three days before deadly Hurricane Katrina slammed into the coast on Aug. 29, Pitts said

Ham radio operator tunes in to help victims
By EDIE HALL
The Kansas City Star
... Since Hurricane Katrina devastated the Gulf Coast, Goll, 81, has been getting messages to agencies such as the Federal Emergency Management Agency, the American Red Cross and the U.S. Army Corps of Engineers.

Ham radio operators to the rescue after Katrina
Amateur radio networks help victims of the hurricane
By Gary Krakow
Columnist
MSNBC
... Such rescues were repeated over and over again. Another ham was part of the mix that same Monday when he heard over the same Salvation Army emergency network of a family of five trapped in an attic in Diamond Head, La. The family used a cell phone to call out. Bob Rathbone, AG4ZG, in Tampa, says he checked the address on a map and determined it was in an area struck by a storm surge.
He called the Coast Guard search-and-rescue station in Clearwater, explained the situation and relayed the information. At this point, the Coast Guard office in New Orleans was out of commission. An hour later he received a return call from the South Haven Sheriffï¿½s Department in Louisiana, which informed him a rescue operation was under way.
Another search-and-rescue operation involved two adults and a child stuck on a roof. The person was able to send a text message from a

cell phone to a family member in Michigan. Once again, the Coast Guard handled the call.

Ham radio operator tunes in to help victims
By EDIE HALL
The Kansas City Star
... he said. "I also got a message from a group of FEMA workers who were trapped on a bridge that was about to collapse and we got them out of there."

.... hopefully this is written in suitably understandable English.

73's
Richard Clark, KB7QHC

340. Re: If to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 09:16:44 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <8k35i11lmh2sdrn8re7g69gh6d3j8mkqo6@4ax.com>
Source record: 70837
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Fri, 09 Sep 2005 22:01:27 -0400, TRABEM <> wrote:

>I need an LF to 30 Khz preselector (passive) for a homebrewed receiver
>I'm building. I have most of the details worked out, but I am stuck on
>the preselector design.
>
>I want one band to cover 50 Khz to 500 Khz (or 1 Mhz).

That would be 1:10 (or 1:20) frequency range.

>The second band would be 1 Mhz to 30 Mhz.

That would be 1:30 frequency range and would require a 1:900 reactance range, if only one element (inductance or capacitance) is tuned, which would be completely unrealistic. The alternative would be to tune both the inductance _and_ capacitance in the 1:30 range. However, with a 300 pF variable capacitor, the minimum capacitor would be 10 pF _including_ all stray capacitances, not very realistic. I have no idea what a realistic tuning range would be for a permeability tuned inductor. I have only seen those in FM receivers (87..108 MHz), which only about 20 % tuning range.

>50 ohm input with moderate Q (don't want to
>have to retune it every 100 Khz. The LF unit can be very high Q,
>peaking it every few Khz is ok as most of the signals in that range
>are narrowband signals anyway. Input impedance is standard 50 ohms.

Maintaining the constant impedance if both inductance and capacitance is tuned would be a challenge.

While maintaining the power match makes some sense in HF receivers (and also if you are using some small magnetic loops on LF/MF), but otherwise, I would question the idea to maintain the 50 ohm resistive input impedance on LF (and possibly also MF).

On LF, any practical random wire antenna would have a high capacitive reactance. On LF I have simply used a parallel tuned circuit and connected the antenna to the hot end of the circuit with a small (10-100 pF) capacitor. Of course, the tuning scale will not be accurate if you change the antenna, since the antenna stray capacitances will detune the resonant circuit. Use a secondary winding or a source/emitter follower to get the impedance down to feed a 50 ohm receiver input or feed a coaxial cable (if the preselector is just under the antenna).

If you intend to use magnetic loop antennas on LF/MF, which have a low efficiency, I would suggest using a (remotely)tunable loop as the preselector, with possibly a preamplifier at the antenna.

I would strongly suggest splitting the HF bands and switching in various inductors for various bands and use an ordinary variable capacitor.

The situation is quite problematic on LF, since you would need a variable capacitor with a tuning range int several nF to keep the resonant circuit impedances at manageable levels (otherwise, it would be quite "touchy" due to stray capacitances). With practical variable capacitors, you would have to add parallel padding capacitors, with would further reduce the tuning range.

Permeability tuning might be an option. You could try making a coil and slide a ferrite bar (from a medium wave antenna) into it, however, I have no experience with this.

Paul OH3LWR

341. Re: Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 10:47:46 UTC
From: Howard K0ACF <howardk0acf@cox.net>
Message-ID: <jRyUe.74612$DW1.35802@fed1read06>
Source record: 70838
Body handling: HTML body converted to readable text

Looks like a Rohn HDX series. I had the HDX 48(48ft. tall) The HDX series
went to 64 ft. if I remember right.
"Paul P" wrote in
message news:v5fUe.214720$5N3.62635@bgtnsc05-news.ops.worldnet.att.net...
> Gentlemen,
>
> I am attempting to identify the tower manufacture of the tower pictured
> at:
> http://www.ppinyot.com/antenna.htm. I would like to properly design a
> base for it given the manufacturers specs plus perhaps pick up additional
> sections.
>
> The tower seems to be of a stamped steel design (not tubular) with stamped
> steel cross members. It has been well maintained by the silent key's son.
> I gather it is about 10 to 15 years old. There is an unpainted ladder
> chained to one side for storage. Please do not confuse this as part of the
> tower.
>
> Also if you happen to recognize the beam please Identify it too.
>
> Unfortunately some one discarded all the paper work not knowing it's
> value.
>
> Thanks Paul
>
> paul at ppinyot dot com
>
> KB3LZP
>

342. loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 12:46:24 UTC
From: larry <larya@rogers.com>
Message-ID: <zdSdncQzuYW5S7_eRVn-hA@rogers.com>
Source record: 70839

greetings...

I have been a ham since the mid 60's and the main antenna of choice appears to be dipole... However, over the past few months, or so, I have been reading more and more about this loop antenna.....

I am reasonable sure I can get more information about it so I won't bore you with how to build one, etc, .. my question is more of why or how... Why has this antenna become so popular over the past little while and how did it get this popularity....What charateristics, besides seemingly not needing as much geography to need to put up, does this antenna have that make is so appealing?

I might consider it...for 80 or 40...

Larry ve3fxq

343. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 13:23:50 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <acn5i19a1frimvdadln0v2kt77aoptn4kq@4ax.com>
Source record: 70840

On Sat, 10 Sep 2005 08:46:24 -0400, "larry" <larya@rogers.com> wrote:

>greetings...
>
>I have been a ham since the mid 60's and the main antenna of choice appears
>to be dipole... However, over the past few months, or so, I have been
>reading more and more about this loop antenna.....
>
>I am reasonable sure I can get more information about it so I won't bore you
>with how to build one, etc, .. my question is more of why or how... Why has
>this antenna become so popular over the past little while and how did it get
>this popularity....What charateristics, besides seemingly not needing as
>much geography to need to put up, does this antenna have that make is so
>appealing?
>
>I might consider it...for 80 or 40...
>
>Larry ve3fxq
>

Depending upon the size of the loop in wavelengths and depending upon
where in the geometry it is fed and depending upon its height, it
might very well be a good cloud warmer - in which case it would
probably give excellent performance in the immediate area (as opposed
to DX).

People that I QSO with on 75 seem to do very, very well with loop
antennas in the evening over a range of up to 500 - 700 mi.

344. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 13:25:07 UTC
From: K4YZ <k4yz@aol.com>
Message-ID: <1126358707.445082.283000@f14g2000cwb.googlegroups.com>
Source record: 70841
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

nobodys_old_friend wrote:
> Richard Clark wrote:
> > On 9 Sep 2005 14:30:13 -0700, "an_old_friend" <konstans@hotmail.com>
> > wrote:
> > >> > No waviering here. The ARS proides usefull service, mostly in keeping
> > >> > H&W stuff off the plate of those with better things to do.
> >
> > Mostly? This is a left-handed complement in light of the news.
>
> I have seencoverage of H&W traffic on the news
> >
> > >> > It does not properly replace the system used by the cops as witness the
> > >> > keystone cops bummbling we see and here about
> >
> > In fact it did replace the system used by the cops, and witnesses
> > abound.
>
> Cops dispatched by Ham radio? I don't think so

Then get your "believer" fixed, boyo.

It's happened before, it's happening now.

> > >> > the ARS is not saving the day or saving civilation, it is hellp people
> > >> > lessen the impact of the disaster, what I have been saying all along
> >
> > Well, until you were crossposted here, we have been entirely unaware
> > of what you have been saying all along. That aside, and more to the
> > point about your comment about ARS not saving the day, there are a
> > half dozen FEMA workers who would humbly admit otherwise after they
> > were rescued through Ham operator efforts.
>
> well that is news
> >
> > >But just How big is Mntgomery I was though there once long ago, and
> > >thought it pretty small. But any reason they could not use GRMS or even
> > >CB to make those links? I don't see any but you might know better than
> > >I.
> >
> > From your vantage deep in Virginia, I would think that Montgomery
> > would be quite cosmopolitan. Going beyond that however, such
> > suggestions as offered above seem to miss the point of HF
> > communications.

>
> Virgina? I don't live in Virgina

Good thing, too.

They like liars and deviants even less than I do.

> but in responf to a quip about the shelters in Montgomery being linked
> by Ham radio HF would hardly seem likely to be involved

"response"

Why?

You think that they only need to talk across town?

> > >The Comms provided by hams are important and of value, But I see no
> > >report of (let alone have one confirmed) use of ham radio that rises to
> > >the level of critcal
> >
> > You should consider your choices made in informing yourself.
>
> Auf Anglish Bitte?

Cowardly avoidance.

Typical Mark Morgan.

Steve, K4YZ

345. Re: If to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 13:25:39 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <kf3bv2-f8s.ln1@p400bob.personal.cox.net>
Source record: 70845
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I realise that you are after a passive solution but I wonder if an op-amp or two in a Q multiplier configuration *for the first band) might be a better idea? You could then tune the feedback/gain of the device with a R/C combination rather than large values of L. You could of course set the gain to 1 if you wanted.

Just an idle thought.

Cheers Bob W5/VK2YQA

TRABEM wrote:
>
> I need an LF to 30 Khz preselector (passive) for a homebrewed receiver
> I'm building. I have most of the details worked out, but I am stuck on
> the preselector design.
>

346. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 13:33:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1126359392_6087@spool6-east.superfeed.net>
Source record: 70842

Steve Nosko wrote:
> I shouldn't, but will. You don't say, but I think you are puzzled by a
> decreasing load impedance causing a decrease in collector current. I'd have
> to think about it, but I'd first Try modeling that LC filter at resonance to
> see if it gives an inverse function like the 1/4 wave line.
> A "gut" reaction tells me that a decreasing collector current for *either*
> an increased or decreased load Z would not be a surprise...

The output is link coupled through a series 216 nH coil and a 2.1 nF cap
to ground. The load is connected from the coil/cap junction to ground.
It's a Class E/F 40m amp.

Load Drain Current Drain Efficiency Load Power
25 ohms 12.2 amps 82.6% 129 watts
50 ohms 20.1 amps 77.7% 200 watts
100 ohms 33.1 amps 62.3% 264 watts

Can these be thought of as load-pulling data points? Maximum load
power appears to occur when the load is greater than 100 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

347. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 13:38:08 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <074bv2-39s.ln1@p400bob.personal.cox.net>
Source record: 70846

Hi Larry

You are talking about a shielded magloop rather than a full wave length
single quad loop...

They exhibit reasonable performance for their size and are very quiet.
ie the signal to noise is often better on the magloop than a larger
antenna. I have seen claims that the signal strength is maybe 2 S points
lower but the noise is 5 S points lower.

I have heard of configurations where a dipole is used for TX and a
magloop for RX.

The at antenna tuning makes for less chance of a strong nearby signal
desensitizing your RX. The downside of that is that you have to have
some method of doing this remote tuning. Bandwidths in the order of
20-30khz on 80m are not uncommon.

They can be built for 2:1 or 3:1 frequency coverage range. I have no
idea how the performance changes at the far end.

I actually havent built one <weak grin>

Hope this helps.

Cheers Bob W5/VK2YQA

larry wrote:
> this popularity....What charateristics, besides seemingly not needing as
> much geography to need to put up, does this antenna have that make is so
> appealing?

348. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 13:44:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1126360020_6099@spool6-east.superfeed.net>
Source record: 70843

larry wrote:
> I might consider it...for 80 or 40...

How long is the loop in wavelengths?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

349. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 13:59:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfuos7$96a$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70844

> How long is the loop in wavelengths?
> --
==========

. . . . . and is it in the horizontal of vertical plane?

350. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 14:08:13 UTC
From: K4YZ <k4yz@aol.com>
Message-ID: <1126361293.168132.184530@f14g2000cwb.googlegroups.com>
Source record: 70847
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

nobodys_old_friend wrote:
> Dan/W4NTI wrote:
> > "nobodys_old_friend" <konstans@hotmail.com> wrote in message
> > news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...

> > As usual our resident dissident has no idea what he is talking about. Here
> > in Alabama we have provided the operators to man the shelters for the Red
> > Cross on the Gulf Coast. They have, and ARE providing the ONLY
> > communications between the shelters and Red Cross HQS in Montgomery.
>
> did you you bother to read my remarks before lighting up the flame
> thrower?

Seems to me he did.

> But just How big is Mntgomery I was though there once long ago, and
> thought it pretty small. But any reason they could not use GRMS or even
> CB to make those links? I don't see any but you might know better than
> I.

ANYONE knows better than you.

(1) There are only 35 ACTIVE GMRS licenses in Montgomery per the
FCC. To the best of my knowledge, there is NO active GMRS repeater in
Montgomery. However, with only 35 licensees, I find it hard to believe
there's more than one if there's any at all.

This means a MAXIMUM of seven repeater pairs and 14 simplex
channels and no more than 25w to fixed antennas, period.

(2) There are 378 AMATEUR licenses in Montgomery. My 2004
repeater directory shows (6) 2 meter repeaters and (6) 440 repeaters in
the city alone.

On the 2 meter band alone this includes five digital-exclusive
channels, over 30 simplex channels, and authorized power of up to
1500w.

(3) CB Radio has a ground-wave effective distance of less than 5
miles. Daytime propagation makes it completely unusable more than 2
miles away.

(4) There is no viable CB radio-based traffic handing system in
the United States. You can tattoo the message to the CBer's head, but
if they don't have the infrastructure to disposition the message, all

you've done is waste time.

(5) Montgomery's population is just under 250,000.

Steve, K4YZ

351. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 14:52:50 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126363970.820311.161670@g49g2000cwa.googlegroups.com>
Source record: 70848
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

K4YZ wrote:
> nobodys_old_friend wrote:
> > Richard Clark wrote:
> > > On 9 Sep 2005 14:30:13 -0700, "an_old_friend" <konstans@hotmail.com>
> > > wrote:
> > > >> > No waviering here. The ARS proides usefull service, mostly in keeping
> > > >> > H&W stuff off the plate of those with better things to do.
> > > >
> > > > Mostly? This is a left-handed complement in light of the news.
> > >
> > > I have seencoverage of H&W traffic on the news
> > > >
> > > >> > It does not properly replace the system used by the cops as witness the
> > > >> > keystone cops bummbling we see and here about
> > > >
> > > > In fact it did replace the system used by the cops, and witnesses
> > > > abound.
> > >
> > > Cops dispatched by Ham radio? I don't think so
> >
> > Then get your "believer" fixed, boyo.
> >
> > It's happened before, it's happening now.
> >
> > > > >> > the ARS is not saving the day or saving civilation, it is hellp people
> > > > >> > lessen the impact of the disaster, what I have been saying all along
> > > > >
> > > > Well, until you were crossposted here, we have been entirely unaware
> > > > of what you have been saying all along. That aside, and more to the
> > > > point about your comment about ARS not saving the day, there are a
> > > > half dozen FEMA workers who would humbly admit otherwise after they
> > > > were rescued through Ham operator efforts.
> > >
> > > well that is news
> > > >
> > > > >But just How big is Mntgomery I was though there once long ago, and
> > > > >thought it pretty small. But any reason they could not use GRMS or even
> > > > >CB to make those links? I don't see any but you might know better than
> > > > >I.
> > > >
> > > > From your vantage deep in Virginia, I would think that Montgomery
> > > > would be quite cosmopolitan. Going beyond that however, such

> > > suggestions as offered above seem to miss the point of HF
> > > communications.
> >
> > Virgina? I don't live in Virgina
>
> Good thing, too.
cuting you sex ramrks again
> > but in responf to a quip about the shelters in Montgomery being linked
> > by Ham radio HF would hardly seem likely to be involved
>
> "response"
>
> Why?
>
> You think that they only need to talk across town?

that was the stated report
>
> > > >The Comms provided by hams are important and of value, But I see no
> > > >report of (let alone have one confirmed) use of ham radio that rises to
> > > >the level of critcal
> > >
> > > You should consider your choices made in informing yourself.
> >
> > Auf Anglish Bitte?
>
> Cowardly avoidance.

then you are a bigger coward stilll pretending you don't understand
when it is convientant
>
> Typical Mark Morgan.
>
> Steve, K4YZ

352. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 15:00:01 UTC
From: Jack <texasjack1NOSPAM@NOSPAM.sbcglobal.net>
Message-ID: <mqs5i1dslpceh1rl6evdab58r2deq2ktpm@4ax.com>
Source record: 70849
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

I have a new 2005 Buick with a rear window heater/antenna. The heater works and the FM reception is fine but the AM reception is terrible to almost nil.. The dealer is working on the problem with the AM radio reception and has ordered a new cable which they are going to install when it arrives later this month. I doubt that this is the problem but they think it is so we'll see after they install a new one. I'll post a follow up when they figure out the problem with the AM radio. My guess is that it is the radio but that is just my guess.

On Mon, 5 Sep 2005 21:24:30 -0400, "Frank" <NOSPAM@NOSPAM.com> wrote:

>Hi all
>
>Let me preamble this by saying I am new at this, and need your
>help. But I am a quick learner!
>
>I have a few specific questions and perhaps you can help. I am
>trying to troubleshoot a Fm static problem
>
>1) Is the car coax cable lead one or two wires? I am quite sure
>it is two (one outer (the ground) and one inner wire) but I'll
>ask to confirm
>
>2) Should a "in-glass" rear winshield antenna be grounded to the
>car's body? If so, from which end of the coax cable? (see Q 3)
>
>3) Does the expression "grounding the antena" (in the case of a
>glass mounted antenna) be as simple as soldering a grounding wire
>from the outside coax lead end that plugs into the HU to a metal
>ground of the car? Or should it be done closer to the actual
>antena? SUch as at the junction of the end of the coax and where
>the antenna starts...
>
>Here is more detail on my problem if this helps: inconsistent FM
>reception (re: static) with in-glass antenna where I use to get
>crystal clear reception with old car. However, there is a twist
>to my problem: I noticed that the coax cable (inner cable) from
>the HU is not truly connected to the antenna even if it looks
>like it is. I tested it with a continuity tester and it is not.
>When I try to connect the inner coax wire directly to the antenna
>(using a wire and soldering), then I can test it and it is well
>connected. In other words, the inner wire of the coax makes a
>continuous circuit from the HU's to the end of the antenna. Yet,
>I still get some static on some FM station (which is not induced

>by the engine or the car's electrical systems).
>
>Any suggestion? It is an RSX 2004 (Acura). I changed the HU twice
>(two models) and the problem persists (same issue with the OEM)
>
>TIA
>

353. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 15:01:11 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126364471.656311.316620@g14g2000cwa.googlegroups.com>
Source record: 70850
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

K4YZ wrote:
> nobodys_old_friend wrote:
> > Dan/W4NTI wrote:
> > > "nobodys_old_friend" <konstans@hotmail.com> wrote in message
> > > news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...
> >
> > > As usual our resident dissident has no idea what he is talking about. Here
> > > in Alabama we have provided the operators to man the shelters for the Red
> > > Cross on the Gulf Coast. They have, and ARE providing the ONLY
> > > communications between the shelters and Red Cross HQS in Montgomery.
> > >
> > did you you bother to read my remarks before lighting up the flame
> > thrower?
> >
> Seems to me he did.

but he did not
>
> > But just How big is Mntgomery I was though there once long ago, and
> > thought it pretty small. But any reason they could not use GRMS or even
> > CB to make those links? I don't see any but you might know better than
> > I.
> >
> ANYONE knows better than you.
>
> (1) There are only 35 ACTIVE GMRS licenses in Montgomery per the
> FCC. To the best of my knowledge, there is NO active GMRS repeater in
> Montgomery. However, with only 35 licensees, I find it hard to believe
> there's more than one if there's any at all.

so now repeaters are the only means
cuting the off topic bullshit

all you do is rant mostly about things with no relavnce even make
claims that the laws of physics change somehow for cb hf

no reason advanced why the shelter even the radios at all all could be
handled less effectively perhaps by the people driving supplies to the
shelters

I see a lot of posturing

It was nice for that other poster a list a few life saving events,
though are worth knowing about

>
> Steve, K4YZ

354. Re: lf to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 15:33:57 UTC
From: TRABEM <>
Message-ID: <8mu5i1tmjbj7ukge3ukij7pks785mp222r@4ax.com>
Source record: 70851
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks Paul,

My old Drake C line had a multiple ganged permeability tuned inductor mechanically coupled to a variable cap.

One of the assemblies tuned the front end, one peaked the driver stage, etc.

It covered from 1 Mhz to 30 Mhz with a half turn on the front panel preselector control. Most likely the variable C and L tuned together maintained a desirable Q across all the bands.

I was hoping for something similar, but have no idea where to get permeability tuned inductors today.

Regards,

T

On Sat, 10 Sep 2005 12:16:44 +0300, Paul Keinanen <keinanen@sci.fi> wrote:

>On Fri, 09 Sep 2005 22:01:27 -0400, TRABEM <> wrote:
>
>>I need an LF to 30 Khz preselector (passive) for a homebrewed receiver
>>I'm building. I have most of the details worked out, but I am stuck on
>>the preselector design.
>>
>>I want one band to cover 50 Khz to 500 Khz (or 1 Mhz).
>
>That would be 1:10 (or 1:20) frequency range.
>
>>The second band would be 1 Mhz to 30 Mhz.
>
>That would be 1:30 frequency range and would require a 1:900 reactance
>range, if only one element (inductance or capacitance) is tuned, which
>would be completely unrealistic. The alternative would be to tune both
>the inductance _and_ capacitance in the 1:30 range. However, with a
>300 pF variable capacitor, the minimum capacitor would be 10 pF
>_including_ all stray capacitances, not very realistic. I have no idea
>what a realistic tuning range would be for a permeability tuned
>inductor. I have only seen those in FM receivers (87..108 MHz), which
>only about 20 % tuning range.
>
>>50 ohm input with moderate Q (don't want to
>>have to retune it every 100 Khz. The LF unit can be very high Q,

>>peaking it every few Khz is ok as most of the signals in that range
>>are narrowband signals anyway. Input impedance is standard 50 ohms.
>
>Maintaining the constant impedance if both inductance and capacitance
>is tuned would be a challenge.
>
>While maintaining the power match makes some sense in HF receivers
>(and also if you are using some small magnetic loops on LF/MF), but
>otherwise, I would question the idea to maintain the 50 ohm resistive
>input impedance on LF (and possibly also MF).
>
>On LF, any practical random wire antenna would have a high capacitive
>reactance. On LF I have simply used a parallel tuned circuit and
>connected the antenna to the hot end of the circuit with a small
>(10-100 pF) capacitor. Of course, the tuning scale will not be
>accurate if you change the antenna, since the antenna stray
>capacitances will detune the resonant circuit. Use a secondary winding
>or a source/emitter follower to get the impedance down to feed a 50
>ohm receiver input or feed a coaxial cable (if the preselector is just
>under the antenna).
>
>If you intend to use magnetic loop antennas on LF/MF, which have a low
>efficiency, I would suggest using a (remotely)tunable loop as the
>preselector, with possibly a preamplifier at the antenna.
>
>I would strongly suggest splitting the HF bands and switching in
>various inductors for various bands and use an ordinary variable
>capacitor.
>
>The situation is quite problematic on LF, since you would need a
>variable capacitor with a tuning range int several nF to keep the
>resonant circuit impedances at manageable levels (otherwise, it would
>be quite "touchy" due to stray capacitances). With practical variable
>capacitors, you would have to add parallel padding capacitors, with
>would further reduce the tuning range.
>
>Permeability tuning might be an option. You could try making a coil
>and slide a ferrite bar (from a medium wave antenna) into it, however,
>I have no experience with this.
>
>Paul OH3LWR

355. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 16:18:00 UTC
From: Hank Oredson <horedson@earthlink.net>
Message-ID: <YGDUe.506$LS5.315@newsread3.news.pas.earthlink.net>
Source record: 70852
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1126301413.743957.191760@g14g2000cwa.googlegroups.com...
>
> Dan/W4NTI wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in message
>> news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...
>> >
>> > K4YZ wrote:
>> >> Mac wrote:
>> >> > Great work and excellent publicity...cya Mac
>> >> >
>> >> > "Charlie" <chas@aol.com> wrote in message
>> >> > news:11htogetcauugb1@news.supernews.com...
>> >> > > 1. http://www.msnbc.msn.com/id/9228945/
>> >> > >
>> >> > > --
>> >> > >
>> >> > > Charlie - AD5TH
>> >> > > www.ad5th.com
>> >>
>> >> I've noted that the usual rhetoric from the "Ham Radio Will Never
>> >> Get Through When Anything Fails" crowd, specifically from the
>> >> patriarch
>> >> of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face
>> >> of
>> >> MAJOR media stories in all facets of "the press" that have lauded
>> >> Amateur Radio.
>> >
>> > No waviering here. The ARS proides usefull service, mostly in keeping
>> > H&W stuff off the plate of those with better things to do.
>> >
>> > It does not properly replace the system used by the cops as witness the
>> > keystone cops bummbling we see and here about
>> >
>> > the ARS is not saving the day or saving civilation, it is hellp people
>> > lessen the impact of the disaster, what I have been saying all along
>> >>
>> >> Even the snide remarks of some lame slime from Motorola has been
>> >> laid waste.
>> >>
>> >> 73
>> >>
```

>> >> Steve, K4YZ
>> >
>>
>> As usual our resident dissident has no idea what he is talking about.
>> Here
>> in Alabama we have provided the operators to man the shelters for the Red
>> Cross on the Gulf Coast. They have, and ARE providing the ONLY
>> communications between the shelters and Red Cross HQS in Montgomery.
>
> did you you bother to read my remarks before lighting up the flame
> thrower?
>
> But just How big is Mntgomery I was though there once long ago, and
> thought it pretty small. But any reason they could not use GRMS or even
> CB to make those links? I don't see any but you might know better than
> I.
>
> as to your other points.
>
> One am unable judge for myself directly of course because of rules you
> personaly have supported for years.
>
> Two I said most com seemed to that most were H&W, Indeed given the size
> of Montgomery could not they diespense with anything but messagers? Not
> syaing they should but couldn't they.

That is incorrect. All the traffic I personally relayed was
emergency requests for rescue. All the traffic handled by
the net I helped was emergency traffic, and resulted in many
many rescues. Lots of folks are alive today because of ham radio.

> The Comms provided by hams are important and of value, But I see no
> report of (let alone have one confirmed) use of ham radio that rises to
> the level of critcal

Your ignorance is amazing. Did you actually LISTEN?

>
>>
>> The Alabama Net and other groups are providing links further down the
>> line.
>
> and what are they passing?
>
> what vital message are they conveying?

Listen and learn.

--

... Hank

http://home.earthlink.net/~horedson
http://home.earthlink.net/~w0rli

356. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 16:57:23 UTC
From: larry <larya@rogers.com>
Message-ID: <DoKdnc13dr1ljb7eRVn-gQ@rogers.com>
Source record: 70853

HI Cecil and the others...
How long ....
This is one of the things I would have to research if I was interested on one...
In my imagination.. I have been thinking of these loop antennas as being sort of a very large coil of wire as the input tuned circuit of the first rf amplifier...
As the coil gets larger, in diameter, you need fewer turns.... So, by extension, if you had a large diameter tuned circuit, let say 10 feet, you would need very few turns... Unfortunately, .as well any tuned circuit, you need a parallel capacitor... As you changed frequency, since we normally change the capacitor, you have to remotely change the parallel capacitor...
Ok.... So you have this rather large loop, inductor, and you have it's parallel, capacitor you have to peak them (I believe I have already said that).. Now. since our cable usually comes in 50 ohm impedances.... you have to transport this weak signal to the radio, you have to use a split capacitor.... the full capacitor is in parallel with the coil.... The ground capacitor, of the two series capacitors, is adjusted to give the proper match to the cable and the series capacitor is the parallel to the coil, you have a very marvellous network of two capacitors, needing separate tuning to keep this overall loop tuned...

A lot of work.... I just hope this loop antenna system can be used in both transmit and receiver... (just my initial opinion)....

Any further thinking on this subject... you have my attention...

Larry ve3fxq

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:1126360020_6099@spool6-east.superfeed.net...
> larry wrote:
> > I might consider it...for 80 or 40...
>
> How long is the loop in wavelengths?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==-----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
> -----= East and West-Coast Server Farms - Total Privacy via Encryption =-----

357. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 17:42:15 UTC
From: petercc@care2.com
Message-ID: <1126374135.512629.189440@g14g2000cwa.googlegroups.com>
Source record: 70854

Yes I would like an email address so I can see what you are talking about.

I have the cable connector which connects to the main cable from the proxim card fine. I am picking up the 20 foot cable and want an antenna that will minimize loss of the signal. I tried an existing omni antenna that is aboout 30" long and a long cable and the signal was nonexistant. With the short cable and that same antenna I was using, I got some hotspots tuned in.

358. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 17:56:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m976i1tu0781jb7dtlmgjf97ou6u2mvrpi@4ax.com>
Source record: 70855

On 10 Sep 2005 10:42:15 -0700, petercc@care2.com wrote:

> I tried an existing omni antenna
>that is aboout 30" long and a long cable and the signal was
>nonexistant. With the short cable and that same antenna I was using, I
>got some hotspots tuned in.

Hi Peter,

This 30" antenna is easily ten times too long. It will be very
directional, and only if you point it (like a rapier) towards the
transmitter. As it stands, your favored direction is straight up.
This, of course, is strictly counter to your stated desire for "omni."

Take a cue from the products offered for this class of communication.
Their antennas are short for reasons that go beyond aesthetics. Take
heart that you are on the right path. Antenna height (distance above
you, not length) is always an advantage.

73's
Richard Clark, KB7QHC

359. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 18:02:39 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835432 32DCF97@zetnet.co.uk>
Source record: 70731

I just bought a very old, vertical antenna. The ant. is aluminium
andvery corroded.
Is this just a cosmetic problem, or will the corrosion affect the
radiation/reception of RF?
Since the insulation on wire antennas doesn't affect their
effectiveness, I'm thinking the corrosion wouldn't be a problem; but my
working-class logic has gotten me in trouble before. <G> Will painting
an aluminium antenna decrease it's effectiveness, or not
matter? Thanks

> Bob -

> If you wish to clean the aluminium - lye (NaOH) is often used -
> however this
> is a caustic agent - and usual precautions should be used if you use this
> approach. There are also aluminium cleaners available at your local auto
> supply stores.

> Although some amateur use steel wool pads -- this can leave steel
> slivers on
> the aluminium tubing that can oxidize (rust) - I refer non metallic
> scrubbing
> pads if you need some elbow grease.

Hmm. Grey matter being a bit thin now, and about 40 years since I was at
school, but doesn't caustics on aluminium cause dangerous gases? Better
to use a scotch bright pad and an agent like Brasso (English name for
Brass cleaner compound) Once you've tin worm it's hard to stop the
oxydization. Your main priority is making sure the antenna has no
weaknesses in the wall thickness so that it's safe and will not bend.
Painting should have no detrimental electrical effects providing the
paint has no metalic compounds in it, but surly painting is just hiding
defects!! A previous posting asked about using stainless steel fixings
on aluminium, this causes an electrolitic conversion between the two
metals, not quite a good combination especially if you've shelled out
mega bucks for a decent antenna. After a few years in the air without
inspection you's be in for a big surprise.
Cheers from England. Dave

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Don't.

360. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 18:31:34 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <aEFUe.1717$vQ3.940@trnddc08>
Source record: 70856

<petercc@care2.com> wrote in message
news:1126374135.512629.189440@g14g2000cwa.googlegroups.com...
> Yes I would like an email address so I can see what you are talking
> about.
>
> I have the cable connector which connects to the main cable from the
> proxim card fine. I am picking up the 20 foot cable and want an antenna
> that will minimize loss of the signal. I tried an existing omni antenna
> that is aboout 30" long and a long cable and the signal was
> nonexistant. With the short cable and that same antenna I was using, I
> got some hotspots tuned in.
>

Hi Peter

I sent you an E-mail. Let me know here if it doesnt get to you.

Do you have any specs on the "existing antenna"? I havent seen any
omniazimuth WiFi antennas that long. It is likely that the 30 inch long
antenna is *not* designed for 2.4 GHz use.

Try to get some specs on the loss of the cable you are "picking up".
Since I am not willing to accept the loss associated with coax at this
frequency, I have resorted to either USB or CAT 5 rather than use coax from
the antenna to the computer.

Jerry

361. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 19:14:25 UTC
From: fazamy@aol.com
Message-ID: <1126379665.506036.203190@g44g2000cwa.googlegroups.com>
Source record: 70857
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

NYC''s WCBS 880 business reporter Steve Donnelly stated a few days
after Katrina devasted New Orleans that the only things working down
there were helicopters and ham radio.

KB2AMY

362. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 19:15:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126379911_7763@spool6-east.superfeed.net>
Source record: 70858

larry wrote:
> A lot of work.... I just hope this loop antenna system can be used in both
> transmit and receiver... (just my initial opinion)....

Full wave loops are quite different from small loops but both
can be used for both transmit and receive. As usual, transmit
is the challenge. A one-turn small loop works best if resonated
by a vacuum cap.

> Any further thinking on this subject... you have my attention...

The ARRL Antenna Book has some good information on the subject.
Single turn loops work well for transmitting. Multiple turn
transmitting loops have a nasty habit of disappointing the user.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

363. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 19:52:30 UTC
From: "Percival P. Cassidy" <Nobody@NotMyISP.net>
Message-ID: <1QGUe.29145$ih4.20237@fe02.lga>
Source record: 70859
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 09/09/05 05:30 pm an_old_friend tossed the following ingredients into
the ever-growing pot of cybersoup:

> Two I said most com seemed to that most were H&W, Indeed given the size
> of Montgomery could not they diespense with anything but messagers? Not
> syaing they should but couldn't they.
>
> The Comms provided by hams are important and of value, But I see no
> report of (let alone have one confirmed) use of ham radio that rises to
> the level of critcal

>>The Alabama Net and other groups are providing links further down the line.

> and what are they passing?
>
> what vital message are they conveying?

Several days ago I heard a message being relayed to police/hwy
patrol/whomever about people trapped in an attic somewhere that needed
to be rescued.

The latest ARRL eLetter reports that in some places hams were lending
their equipment to "official" agencies because the latters' equipment
did not work.

Remember that, in this "land of the 'We'll do it our own way, thank you
very much'", many govt. agencies cannot communicate with each other by
radio even when the equipment does work: every county and municipality,
every fire dept. and ambulance service is free to decide what equipment
to use regardless of what anybody else is using. I understand that
Michigan is one of the few states with an integrated (or at least
coordinated) radio system. Where multiple agencies are trying to work
together, putting ham radio operators with each agency may be one of the
few ways they have of keeping in touch.

"Perce"
(aka Alan NV8A)

364. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 20:34:32 UTC
From: K4YZ <k4yz@aol.com>
Message-ID: <1126384472.396083.263930@f14g2000cwb.googlegroups.com>
Source record: 70860
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

nobodys_old_friend wrote:
> K4YZ wrote:
> > nobodys_old_friend wrote:
> > > Dan/W4NTI wrote:
> > > > "nobodys_old_friend" <konstans@hotmail.com> wrote in message
> > > > news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...
> > >
> > > > As usual our resident dissident has no idea what he is talking about. Here
> > > > in Alabama we have provided the operators to man the shelters for the Red
> > > > Cross on the Gulf Coast. They have, and ARE providing the ONLY
> > > > communications between the shelters and Red Cross HQS in Montgomery.
> > > >
> > > did you you bother to read my remarks before lighting up the flame
> > > thrower?
> > >
> > Seems to me he did.
> >
> but he did not

But he DID!

> > > But just How big is Mntgomery I was though there once long ago, and
> > > thought it pretty small. But any reason they could not use GRMS or even
> > > CB to make those links? I don't see any but you might know better than
> > > I.
> > >
> > ANYONE knows better than you.
> > >
> > (1) There are only 35 ACTIVE GMRS licenses in Montgomery per the
> > FCC. To the best of my knowledge, there is NO active GMRS repeater in
> > Montgomery. However, with only 35 licensees, I find it hard to believe
> > there's more than one if there's any at all.
> >
> so now repeaters are the only means
> cuting the off topic bull#####

What's "off topic" about it, Markie..?!?!

YOU were the one who brought up GMRS and CB, Ya Putz!

And you will please notice that I clearly addressed SIMPLEX
frequencies too, so so much for your "repeaters only" diatribe, Markie.

> all you do is rant mostly about things with no relavnce even make
> claims that the laws of physics change somehow for cb hf

(1) YOU brought up GMRS and CB radio, Markie, NOT ME!

(2) I didn't claim any "laws of physics" were different for "cb hf" ! I SPECIFICALLY addressed the shortcomings of using CB radio BASED upon KNOWN propagation at that wavelength! It's the SAME reason that 10 meters is not typically used for short range emergency communications here! Add the horrific QRM on 11 meters, and it's a wasteland good for nothing except in-house intercom duties, IF that!

> no reason advanced why the shelter even the radios at all all could be
> handled less effectively perhaps by the people driving supplies to the
> shelters
>
> I see a lot of posturing

No...what you SAW here were some FACTS.

QUOTE

(1) There are only 35 ACTIVE GMRS licenses in Montgomery per the FCC. To the best of my knowledge, there is NO active GMRS repeater in Montgomery. However, with only 35 licensees, I find it hard to believe

there's more than one if there's any at all.

This means a MAXIMUM of seven repeater pairs and 14 simplex channels and no more than 25w to fixed antennas, period.

UNQUOTE

What is "posturing" about that, Markie? Nothing there is mistruthful or deceitful. Also please note the aforementioned use of OTHER-THAN "repeater" options that you tried to claim was my only point.

QUOTE

(2) There are 378 AMATEUR licenses in Montgomery. My 2004 repeater directory shows (6) 2 meter repeaters and (6) 440 repeaters in

the city alone.

On the 2 meter band alone this includes five digital-exclusive channels, over 30 simplex channels, and authorized power of up to 1500w.

UNQUOTE

One correction on my part...There are "374", not "378" Amateur licensees in Montgomery...And that's just folks with a Montgomery mailing address.

Again...I'd be interested in what part of those numbers are "posturing", Markie.

And again, OTHER than "repeater" options are addressed.

QUOTE:

(3) CB Radio has a ground-wave effective distance of less than 5
miles. Daytime propagation makes it completely unusable more than 2
miles away.

UNQUOTE

You dispute this, Markie?

QUOTE

(4) There is no viable CB radio-based traffic handing system in
the United States. You can tattoo the message to the CBer's head, but
if they don't have the infrastructure to disposition the message, all
you've done is waste time.

UNQUOTE

Wondering what part of THAT is "posturing", Markie.

P L E A S E point me to the URL for the CB-radio based traffic
handing organization in the United States...Please...

QUOTE:

(5) Montgomery's population is just under 250,000.

UNQUOTE

YOU said that you remembered Montgomery as being small. So now
the Census numbers are "posturing"...?!?!

> It was nice for that other poster a list a few life saving events,
> though are worth knowing about.

Stuff like that is going on every day right now. It will be a long
time before Motorola and the other manufacturers can get the gear into
the field and working.

So...Amateurs created KATRINA just so we could "posture" in a
newsgroup...?!?!

Steve, K4YZ

365. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 20:35:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfvg2gnlg1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70861

It should be borne in mind the best form of radiator is just an isolated straight length of wire. But curved or bent wires do almost as good.

Loop antennas are nearly always single turn conductors and provide a means of getting as much wire into space as possible with the largest possible linear dimension being dependent on the size of your back yard. Or your attic. Loops are space savers.

Subject to the space available, for a given perimeter, the larger the area enclosed by a loop the better are its radiating properties and its power efficiency. However, when an antenna is already 80 or 90 percent efficient, there is seldom any point in attempting to improve it. 100 percent is impossible. And to improve it to 95 percent results only in an entirely imperceptible 0.2dB or 1/20th of an S-unit.

Again considering space requirements, the physically smallest loops are descibed as Magloops. Magloops, not difficult to design, are the most efficient of all small antennas of any type.

When the perimeter of a Magloop is only 1/3rd of a wavelength at the operating frequency, efficiency can approach that of a full size 1/2-wave dipole. The disadvantage of a small magloop lies in its restricted range of operating frequencies. Three adjacent HF bands at most. The cost of a vaccuum variable capacitor cannot be neglected.

But even at frequencies as low as 1.9 and 3.6 MHz, magloops with perimeters as small as 1/15 wavelengths, diameters as small as 1/50 wavelengths, are quite usable in small backyards and attics. Expect signal strengths 2 or 2.5 S-units worse than a full size half-wave dipole. There are reports of improved signal to noise ratio on receive although I have not experienced this myself.

For design of magloops at any HF frequency and any reasonable size of loop, download program MAGLOOP4 from website below.

For performance of much larger horizontal loops, for use in your backyard, download program RJELOOP4

Reg, G4FGQ.

366. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 20:53:03 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126385583.478998.173920@z14g2000cwz.googlegroups.com>
Source record: 70862
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Percival P. Cassidy wrote:
> On 09/09/05 05:30 pm an_old_friend tossed the following ingredients into
> the ever-growing pot of cybersoup:
>
> > Two I said most com seemed to that most were H&W, Indeed given the size
> > of Montgomery could not they diespense with anything but messagers? Not
> > syaing they should but couldn't they.
> >
> > The Comms provided by hams are important and of value, But I see no
> > report of (let alone have one confirmed) use of ham radio that rises to
> > the level of critcal
>
> >>The Alabama Net and other groups are providing links further down the line.
>
> > and what are they passing?
> >
> > what vital message are they conveying?
>
> Several days ago I heard a message being relayed to police/hwy
> patrol/whomever about people trapped in an attic somewhere that needed
> to be rescued.
>
> The latest ARRL eLetter reports that in some places hams were lending
> their equipment to "official" agencies because the latters' equipment
> did not work.
>
> Remember that, in this "land of the 'We'll do it our own way, thank you
> very much'", many govt. agencies cannot communicate with each other by
> radio even when the equipment does work: every county and municipality,
> every fire dept. and ambulance service is free to decide what equipment
> to use regardless of what anybody else is using. I understand that
> Michigan is one of the few states with an integrated (or at least
> coordinated) radio system. Where multiple agencies are trying to work
> together, putting ham radio operators with each agency may be one of the
> few ways they have of keeping in touch.

michigan is still working on this system sad to say although they are
trying fairly hard and have made a lot of progress compared to much of
the nation
>
> "Perce"
> (aka Alan NV8A)

367. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 20:56:19 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <TLHUe.10445$FW1.3243@newsread3.news.atl.earthlink.net>
Source record: 70863
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1126315066.262040.67480@g47g2000cwa.googlegroups.com...
>
> Richard Clark wrote:
>> On 9 Sep 2005 14:30:13 -0700, "an_old_friend" <konstans@hotmail.com>
>> wrote:
>> >> > No waviering here. The ARS proides usefull service, mostly in
>> >> > keeping
>> >> > H&W stuff off the plate of those with better things to do.
>>
>> Mostly? This is a left-handed complement in light of the news.
>
> I have seencoverage of H&W traffic on the news
>>
>> >> > It does not properly replace the system used by the cops as witness
>> >> > the
>> >> > keystone cops bummbling we see and here about
>>
>> In fact it did replace the system used by the cops, and witnesses
>> abound.
>
> Cops dispatched by Ham radio? I don't think so
>>
>> >> > the ARS is not saving the day or saving civilation, it is hellp
>> >> > people
>> >> > lessen the impact of the disaster, what I have been saying all along
>>
>> Well, until you were crossposted here, we have been entirely unaware
>> of what you have been saying all along. That aside, and more to the
>> point about your comment about ARS not saving the day, there are a
>> half dozen FEMA workers who would humbly admit otherwise after they
>> were rescued through Ham operator efforts.
>
> well that is news
>>
>> >But just How big is Mntgomery I was though there once long ago, and
>> >thought it pretty small. But any reason they could not use GRMS or even
>> >CB to make those links? I don't see any but you might know better than
>> >I.
>>
>> From your vantage deep in Virginia, I would think that Montgomery
>> would be quite cosmopolitan. Going beyond that however, such

>> suggestions as offered above seem to miss the point of HF
>> communications.
>
> Virgina? I don't live in Virgina
>
> but in responf to a quip about the shelters in Montgomery being linked
> by Ham radio HF would hardly seem likely to be involved
>

Now the goof calls me a liar. I have been sitting on HF for the last WEEK helping the shelters talk with each other. Montgomery needs commo into places like the Gulf Coast, Biloxi, Gulfport, and of course New Orleans. Get a flippin map and tell me how VHF/UHF is going to make those distances?

Montgomery is the capital city of Alabama. Not what I would call a small town.

>>
>> >The Comms provided by hams are important and of value, But I see no
>> >report of (let alone have one confirmed) use of ham radio that rises to
>> >the level of critcal
>>
>> You should consider your choices made in informing yourself.
>
> Auf Anglish Bitte?
>
>>
>> To Others,
>>
>> I've rummaged up at least a couple of dozen references to the Ham
>> activities from a variety of news outlets (and not just the bobbing
>> heads of salacious cable TV). It would do us all well to stockpile
>> such commendations to "remind" authorities who so quickly forget in
>> the face of those who can stuff their pockets with money-for-airspace.
>
> Indeed we should, we should also make sure they are accurate
>>
>> 73's
>> Richard Clark, KB7QHC
>

368. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 20:57:43 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126385863.388711.272520@g43g2000cwa.googlegroups.com>
Source record: 70864
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

K4YZ wrote:
> nobodys_old_friend wrote:
> > K4YZ wrote:
> > > nobodys_old_friend wrote:
> > > > Dan/W4NTI wrote:
> > > > > "nobodys_old_friend" <konstans@hotmail.com> wrote in message
> > > > > news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...
> > > >
> > > > > As usual our resident dissident has no idea what he is talking about. Here
> > > > > in Alabama we have provided the operators to man the shelters for the Red
> > > > > Cross on the Gulf Coast. They have, and ARE providing the ONLY
> > > > > communications between the shelters and Red Cross HQS in Montgomery.
> > > >
> > > > did you you bother to read my remarks before lighting up the flame
> > > > thrower?
> > >
> > > Seems to me he did.
> >
> > but he did not
>
> But he DID!
>
> > > > But just How big is Mntgomery I was though there once long ago, and
> > > > thought it pretty small. But any reason they could not use GRMS or even
> > > > CB to make those links? I don't see any but you might know better than
> > > > I.
> > >
> > > ANYONE knows better than you.
> > >
> > > (1) There are only 35 ACTIVE GMRS licenses in Montgomery per the
> > > FCC. To the best of my knowledge, there is NO active GMRS repeater in
> > > Montgomery. However, with only 35 licensees, I find it hard to believe
> > > there's more than one if there's any at all.
> >
> > so now repeaters are the only means
> > cuting the off topic bull####
>
> What's "off topic" about it, Markie..?!?!
>
> YOU were the one who brought up GMRS and CB, Ya Putz!
>
> And you will please notice that I clearly addressed SIMPLEX

> frequencies too, so so much for your "repeaters only" diatribe, Markie.
>
> > all you do is rant mostly about things with no relavnce even make
> > claims that the laws of physics change somehow for cb hf
>
> (1) YOU brought up GMRS and CB radio, Markie, NOT ME!
>
> (2) I didn't claim any "laws of physics" were different for "cb
> hf" ! I SPECIFICALLY addressed the shortcomings of using CB radio
> BASED upon KNOWN propagation at that wavelength! It's the SAME reason
> that 10 meters is not typically used for short range emergency
> communications here! Add the horrific QRM on 11 meters, and it's a
> wasteland good for nothing except in-house intercom duties, IF that!
>
> > no reason advanced why the shelter even the radios at all all could be
> > handled less effectively perhaps by the people driving supplies to the
> > shelters
> >
> > I see a lot of posturing
>
> No...what you SAW here were some FACTS.

sure there are facts but it also a fact that i think you are an idoit
but this sate of being a fact does not make it relavant

nothing your rant saying why the neds Dan was identifing culd not be
met though other means

just a waste of BW
cut

> YOU said that you remembered Montgomery as being small. So now
> the Census numbers are "posturing"...?!?!

250,00 is relitive small but the issue was never number but land area
>
> > It was nice for that other poster a list a few life saving events,
> > though are worth knowing about.
>
> Stuff like that is going on every day right now. It will be a long
> time before Motorola and the other manufacturers can get the gear into
> the field and working.
>
> So...Amateurs created KATRINA just so we could "posture" in a
> newsgroup...?!?!

more of you absurdity

>
> Steve, K4YZ

369. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 21:05:26 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <qUHUe.9896$9i4.1896@newsread2.news.atl.earthlink.net>
Source record: 70865
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1126301413.743957.191760@g14g2000cwa.googlegroups.com...
>
> Dan/W4NTI wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in message
>> news:1126284201.468452.155920@g44g2000cwa.googlegroups.com...
>> >
>> > K4YZ wrote:
>> >> Mac wrote:
>> >> > Great work and excellent publicity...cya Mac
>> >> >
>> >> > "Charlie" <chas@aol.com> wrote in message
>> >> > news:11htogetcauugb1@news.supernews.com...
>> >> > > 1. http://www.msnbc.msn.com/id/9228945/
>> >> > >
>> >> > > --
>> >> > >
>> >> > > Charlie - AD5TH
>> >> > > www.ad5th.com
>> >>
>> >> I've noted that the usual rhetoric from the "Ham Radio Will Never
>> >> Get Through When Anything Fails" crowd, specifically from the
>> >> patriarch
>> >> of the Feeble Five, Lennie "No Guts" Anderson, has waned in the face
>> >> of
>> >> MAJOR media stories in all facets of "the press" that have lauded
>> >> Amateur Radio.
>> >
>> > No waviering here. The ARS proides usefull service, mostly in keeping
>> > H&W stuff off the plate of those with better things to do.
>> >
>> > It does not properly replace the system used by the cops as witness the
>> > keystone cops bummbling we see and here about
>> >
>> > the ARS is not saving the day or saving civilation, it is hellp people
>> > lessen the impact of the disaster, what I have been saying all along
>> >>
>> >> Even the snide remarks of some lame slime from Motorola has been
>> >> laid waste.
>> >>
>> >> 73
>> >>
```

>> >> Steve, K4YZ
>> >
>>
>> As usual our resident dissident has no idea what he is talking about.
>> Here
>> in Alabama we have provided the operators to man the shelters for the Red
>> Cross on the Gulf Coast. They have, and ARE providing the ONLY
>> communications between the shelters and Red Cross HQS in Montgomery.
>
> did you you bother to read my remarks before lighting up the flame
> thrower?
>
> But just How big is Mntgomery I was though there once long ago, and
> thought it pretty small. But any reason they could not use GRMS or even
> CB to make those links? I don't see any but you might know better than
> I.
>
> as to your other points.
>
> One am unable judge for myself directly of course because of rules you
> personaly have supported for years.
>
> Two I said most com seemed to that most were H&W, Indeed given the size
> of Montgomery could not they diespense with anything but messagers? Not
> syaing they should but couldn't they.
>

Sure they could. And if we still had WWI carrier pidgeons they could be
used also. Or perhaps they could mail a letter.

> The Comms provided by hams are important and of value, But I see no
> report of (let alone have one confirmed) use of ham radio that rises to
> the level of critcal
>
Then I suggest you listen in and find out what is being passed. I will be
posting on rec.radio.amateur. policy the statements from the ARRL on this
subject. Perhaps that will help you to understand.

>
>>
>> The Alabama Net and other groups are providing links further down the
>> line.
>
> and what are they passing?
>

Everything from relaying between shelters (because of poor conditions, or
poor antennas or both), helping various operators with finding links to
other nets, Health and Welfare such as passing messages (at our expense)
from the disaster area to families of those in the area. I personally
participated in passing Emergency traffic from Huntsville AL to New Orleans

Coast Guard about a family trapped in a house and needing their help. Additionally I relayed between a very weak HF station in New Orleans to Tallahassee Hospital to "tell the aircraft to come up on VHF". I have no idea what that meant. But I have no doubt it was important to someone.

I am just ONE operator doing what I can. How about stop criticizing those that are.....you may learn something.

> what vital message are they conveying?
>>
>> Dan/W4NTI
>

370. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 21:07:28 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <kWHUe.9897$9i4.9616@newsread2.news.atl.earthlink.net>
Source record: 70866
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1126363970.820311.161670@g49g2000cwa.googlegroups.com...
>
> K4YZ wrote:
>> nobodys_old_friend wrote:
>> > Richard Clark wrote:
>> > > On 9 Sep 2005 14:30:13 -0700, "an_old_friend" <konstans@hotmail.com>
>> > > wrote:
>> > > >> > No waviering here. The ARS proides usefull service, mostly in
>> > > >> > keeping
>> > > >> > H&W stuff off the plate of those with better things to do.
>> > >
>> > > Mostly? This is a left-handed complement in light of the news.
>> >
>> > I have seencoverage of H&W traffic on the news
>> > >
>> > > >> > It does not properly replace the system used by the cops as
>> > > >> > witness the
>> > > >> > keystone cops bummbling we see and here about
>> > >
>> > > In fact it did replace the system used by the cops, and witnesses
>> > > abound.
>> >
>> > Cops dispatched by Ham radio? I don't think so
>>
>> Then get your "believer" fixed, boyo.
>>
>> It's happened before, it's happening now.
>>
>> > > >> > the ARS is not saving the day or saving civilation, it is hellp
>> > > >> > people
>> > > >> > lessen the impact of the disaster, what I have been saying all
>> > > >> > along
>> > >
>> > > Well, until you were crossposted here, we have been entirely unaware
>> > > of what you have been saying all along. That aside, and more to the
>> > > point about your comment about ARS not saving the day, there are a
>> > > half dozen FEMA workers who would humbly admit otherwise after they
>> > > were rescued through Ham operator efforts.
>> >
>> > well that is news
>> > >

>> > > >But just How big is Mntgomery I was though there once long ago, and
>> > > >thought it pretty small. But any reason they could not use GRMS or
>> > > >even
>> > > >CB to make those links? I don't see any but you might know better
>> > > >than
>> > > >I.
>> > >
>> > > From your vantage deep in Virginia, I would think that Montgomery
>> > > would be quite cosmopolitan. Going beyond that however, such
>> > > suggestions as offered above seem to miss the point of HF
>> > > communications.
>> >
>> > Virgina? I don't live in Virgina
>>
>> Good thing, too.
> cuting you sex ramrks again
>> > but in responf to a quip about the shelters in Montgomery being linked
>> > by Ham radio HF would hardly seem likely to be involved
>>
>> "response"
>>
>> Why?
>>
>> You think that they only need to talk across town?
>
> that was the stated report
>>
>> > > >The Comms provided by hams are important and of value, But I see no
>> > > >report of (let alone have one confirmed) use of ham radio that rises
>> > > >to
>> > > >the level of critcal
>> > >
>> > > You should consider your choices made in informing yourself.
>> >
>> > Auf Anglish Bitte?
>>
>> Cowardly avoidance.
>
> then you are a bigger coward stilll pretending you don't understand
> when it is convientant
>>
>> Typical Mark Morgan.
>>
>> Steve, K4YZ
>
Just where did you get the notion that Montgomery only needed to talk across
town?

Dan/W4NTI

371. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 21:09:31 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126386571.077673.154380@g44g2000cwa.googlegroups.com>
Source record: 70867
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1126363970.820311.161670@g49g2000cwa.googlegroups.com...
> >
> > K4YZ wrote:
> >> nobodys_old_friend wrote:
> >> > Richard Clark wrote:
> >> > > On 9 Sep 2005 14:30:13 -0700, "an_old_friend" <konstans@hotmail.com>
> >> > > wrote:
> >> > > >> > No waviering here. The ARS proides usefull service, mostly in
> >> > > >> > keeping
> >> > > >> > H&W stuff off the plate of those with better things to do.
> >> > >
> >> > > Mostly? This is a left-handed complement in light of the news.
> >> >
> >> > I have seencoverage of H&W traffic on the news
> >> >
> >> > > >> > It does not properly replace the system used by the cops as
> >> > > >> > witness the
> >> > > >> > keystone cops bummbling we see and here about
> >> >
> >> > In fact it did replace the system used by the cops, and witnesses
> >> > abound.
> >> >
> >> > Cops dispatched by Ham radio? I don't think so
> >>
> >> Then get your "believer" fixed, boyo.
> >>
> >> It's happened before, it's happening now.
> >>
> >> > > >> > the ARS is not saving the day or saving civilation, it is hellp
> >> > > >> > people
> >> > > >> > lessen the impact of the disaster, what I have been saying all
> >> > > >> > along
> >> > >
> >> > > Well, until you were crossposted here, we have been entirely unaware
> >> > > of what you have been saying all along. That aside, and more to the
> >> > > point about your comment about ARS not saving the day, there are a
> >> > > half dozen FEMA workers who would humbly admit otherwise after they
> >> > > were rescued through Ham operator efforts.
> >> >
> >> > well that is news

> >> > >
> >> > > >But just How big is Mntgomery I was though there once long ago, and
> >> > > >thought it pretty small. But any reason they could not use GRMS or
> >> > > >even
> >> > > >CB to make those links? I don't see any but you might know better
> >> > > >than
> >> > > >I.
> >> > >
> >> > > From your vantage deep in Virginia, I would think that Montgomery
> >> > > would be quite cosmopolitan. Going beyond that however, such
> >> > > suggestions as offered above seem to miss the point of HF
> >> > > communications.
> >> >
> >> > Virgina? I don't live in Virgina
> >>
> >> Good thing, too.
> > cuting you sex ramrks again
> >> > but in responf to a quip about the shelters in Montgomery being linked
> >> > by Ham radio HF would hardly seem likely to be involved
> >>
> >> "response"
> >>
> >> Why?
> >>
> >> You think that they only need to talk across town?
> >
> > that was the stated report
> >>
> >> > > >The Comms provided by hams are important and of value, But I see no
> >> > > >report of (let alone have one confirmed) use of ham radio that rises
> >> > > >to
> >> > > >the level of critcal
> >> > >
> >> > > You should consider your choices made in informing yourself.
> >> >
> >> > Auf Anglish Bitte?
> >>
> >> Cowardly avoidance.
> >
> > then you are a bigger coward stilll pretending you don't understand
> > when it is convientant
> >>
> >> Typical Mark Morgan.
> >>
> >> Steve, K4YZ
> >
> Just where did you get the notion that Montgomery only needed to talk across
> town?

from your statement obviously
>
> Dan/W4NTI

372. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 21:13:37 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126386817.465115.147680@g49g2000cwa.googlegroups.com>
Source record: 70868
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1126301413.743957.191760@g14g2000cwa.googlegroups.com...
> >
cut

> >
> > did you you bother to read my remarks before lighting up the flame
> > thrower?
> >
> > But just How big is Mntgomery I was though there once long ago, and
> > thought it pretty small. But any reason they could not use GRMS or even
> > CB to make those links? I don't see any but you might know better than
> > I.
> >
> > as to your other points.
> >
> > One am unable judge for myself directly of course because of rules you
> > personaly have supported for years.
> >
> > Two I said most com seemed to that most were H&W, Indeed given the size
> > of Montgomery could not they diespense with anything but messagers? Not
> > syaing they should but couldn't they.
> >
>
> Sure they could. And if we still had WWI carrier pidgeons they could be
> used also. Or perhaps they could mail a letter.
>
> > The Comms provided by hams are important and of value, But I see no
> > report of (let alone have one confirmed) use of ham radio that rises to
> > the level of critcal
> >
> Then I suggest you listen in and find out what is being passed. I will be
> posting on rec.radio.amateur. policy the statements from the ARRL on this
> subject. Perhaps that will help you to understand.

Dan if that is what I am to judge the ARS come off even worse

>
> >
> >>
> >> The Alabama Net and other groups are providing links further down the
> >> line.

> >
> > and what are they passing?
> >
>
> Everything from relaying between shelters (because of poor conditions, or
> poor antennas or both), helping various operators with finding links to
> other nets, Health and Welfare such as passing messages (at our expense)
> from the disaster area to families of those in the area. I personally
> participated in passing Emergency traffic from Huntsville AL to New Orleans
> Coast Guard about a family trapped in a house and needing their help.
> Additionally I relayed between a very weak HF station in New Orleans to
> Tallahassee Hospital to "tell the aircraft to come up on VHF". I have no
> idea what that meant. But I have no doubt it was important to someone.
>
> I am just ONE operator doing what I can. How about stop criticizing those
> that are.....you may learn something.

again you and Stvie and Dave can't allow anyone to question any thing

anyone daring to question is subject to automatic flame thrower

Very typical of the ARS operators these days

so thin skined that anything short glorifcation is critism
>
> > what vital message are they conveying?
> >>
> >> Dan/W4NTI
> >

373. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 21:17:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dfvih1ev1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70869

A follow-on from the previous message -

As usual, I forgot to mention the website from which the programs could be downloaded. It may be something to do with a bottle of fine vintage Port I have recently opened.

Download MAGLOOP4 and RJELOOP4 from website below and make what sense you can out of them.

Incidentally, the number 4 in each name is an indication of previous programs of similar names through which programs have been improved or diverted.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

374. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 21:24:13 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <1aIUe.9902$9i4.6598@newsread2.news.atl.earthlink.net>
Source record: 70870
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1126386571.077673.154380@g44g2000cwa.googlegroups.com...
>
> Dan/W4NTI wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in message
>> news:1126363970.820311.161670@g49g2000cwa.googlegroups.com...
>> >
>> > K4YZ wrote:
>> >> nobodys_old_friend wrote:
>> >> > Richard Clark wrote:
>> >> > > On 9 Sep 2005 14:30:13 -0700, "an_old_friend"
>> >> > > <konstans@hotmail.com>
>> >> > > wrote:
>> >> > > >> > No waviering here. The ARS proides usefull service, mostly in
>> >> > > >> > keeping
>> >> > > >> > H&W stuff off the plate of those with better things to do.
>> >> > > >
>> >> > > Mostly? This is a left-handed complement in light of the news.
>> >> >
>> >> > I have seencoverage of H&W traffic on the news
>> >> > >
>> >> > > >> > It does not properly replace the system used by the cops as
>> >> > > >> > witness the
>> >> > > >> > keystone cops bummbling we see and here about
>> >> > > >
>> >> > > In fact it did replace the system used by the cops, and witnesses
>> >> > > abound.
>> >> >
>> >> > Cops dispatched by Ham radio? I don't think so
>> >>
>> >> Then get your "believer" fixed, boyo.
>> >>
>> >> It's happened before, it's happening now.
>> >>
>> >> > > >> > the ARS is not saving the day or saving civilation, it is
>> >> > > >> > hellp
>> >> > > >> > people
>> >> > > >> > lessen the impact of the disaster, what I have been saying
>> >> > > >> > all
>> >> > > >> > along
>> >> > > >
>> >> > > Well, until you were crossposted here, we have been entirely
```

>> >> > > unaware
>> >> > > of what you have been saying all along. That aside, and more to
>> >> > > the
>> >> > > point about your comment about ARS not saving the day, there are a
>> >> > > half dozen FEMA workers who would humbly admit otherwise after
>> >> > > they
>> >> > > were rescued through Ham operator efforts.
>> >> >
>> >> > well that is news
>> >> > >
>> >> > > >But just How big is Mntgomery I was though there once long ago,
>> >> > > >and
>> >> > > >thought it pretty small. But any reason they could not use GRMS
>> >> > > >or
>> >> > > >even
>> >> > > >CB to make those links? I don't see any but you might know better
>> >> > > >than
>> >> > > >I.
>> >> > >
>> >> > > From your vantage deep in Virginia, I would think that Montgomery
>> >> > > would be quite cosmopolitan. Going beyond that however, such
>> >> > > suggestions as offered above seem to miss the point of HF
>> >> > > communications.
>> >> >
>> >> > Virgina? I don't live in Virgina
>> >>
>> >> Good thing, too.
>> > cuting you sex ramrks again
>> >> > but in responf to a quip about the shelters in Montgomery being
>> >> > linked
>> >> > by Ham radio HF would hardly seem likely to be involved
>> >>
>> >> "response"
>> >>
>> >> Why?
>> >>
>> >> You think that they only need to talk across town?
>> >
>> > that was the stated report
>> >>
>> >> > > >The Comms provided by hams are important and of value, But I see
>> >> > > >no
>> >> > > >report of (let alone have one confirmed) use of ham radio that
>> >> > > >rises
>> >> > > >to
>> >> > > >the level of critcal
>> >> > >
>> >> > > You should consider your choices made in informing yourself.
>> >> >
>> >> > Auf Anglish Bitte?

>> >>
>> >> Cowardly avoidance.
>> >
>> > then you are a bigger coward stilll pretending you don't understand
>> > when it is convientant
>> >>
>> >> Typical Mark Morgan.
>> >>
>> >> Steve, K4YZ
>> >
>> Just where did you get the notion that Montgomery only needed to talk
>> across
>> town?
>
> from your statement obviously
>>
I never said any such thing. I was talking about comms in/out of shelters.
You think ALL the shelters are in one town?

Are you seriously this out of step with the rest of ham radio? Seek mental
health help. You have been fixed, right? Please say yes.

Dan/W4NTI

375. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 22:15:29 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126390529.275426.171890@g44g2000cwa.googlegroups.com>
Source record: 70871
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1126386571.077673.154380@g44g2000cwa.googlegroups.com...
cut
> >> Just where did you get the notion that Montgomery only needed to talk
> >> across
> >> town?
> >
> > from your statement obviously
> >>
> I never said any such thing. I was talking about comms in/out of shelters.
> You think ALL the shelters are in one town?

you never said any such thing as needing to get to other cites, you
seem to think it is my duty to read your mind
>
> Are you seriously this out of step with the rest of ham radio?

Perhaps I am indeed I suspect I like a lot of the long term memeber of
the tech class are largely cut off from the rest of Ham radio. OTOH
that is a result of decisions and rules you have supported for years

> Seek mental
> health help. You have been fixed, right? Please say yes.

up thine preffeable with a antenna conection to powerful tranmitter
>
> Dan/W4NTI

376. Re: Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 23:01:17 UTC
From: markus <tower_dude@tower_dude.com>
Message-ID: <432365BC.26298500@tower_dude.com>
Source record: 70872

Anyone know if the tower mfg. put any
data plates or other identifying markings
on these towers and sections ?

377. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 23:01:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126393478_8223@spool6-east.superfeed.net>
Source record: 70873
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

K4YZ wrote:
> So...Amateurs created KATRINA just so we could "posture" in a
> newsgroup...?!?!

Someone interviewed on network news said today that it was
an "Act of God by George Bush's God". A couple of days ago
some followers of Allah were taking credit for it.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

378. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 23:29:54 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <43236BFF.F90C9FB9@earthlink.net>
Source record: 70874
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
>
> Sure they could. And if we still had WWI carrier pidgeons they could be
> used also. Or perhaps they could mail a letter.

Sure they could mail a letter. After the US postal service reopens
mail service to the affected areas. There were notices on the USPS
website telling that next day, and some other mail services were not
available for the time being.

--
?

Michael A. Terrell
Central Florida

379. Re: If to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-10 23:58:21 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <432372A7.100DD50A@earthlink.net>
Source record: 70875
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

TRABEM wrote:
>
> Thanks Paul,
>
> My old Drake C line had a multiple ganged permeability tuned inductor
> mechanically coupled to a variable cap.
>
> One of the assemblies tuned the front end, one peaked the driver
> stage, etc.
>
> It covered from 1 Mhz to 30 Mhz with a half turn on the front panel
> preselector control. Most likely the variable C and L tuned together
> maintained a desirable Q across all the bands.
>
> I was hoping for something similar, but have no idea where to get
> permeability tuned inductors today.
>
> Regards,
>
> T

Fair Radio used to have some in their catalog, and they were used in
all of the old Delco (and some other brands) car radios of the '60s and
'70s.

--
?

Michael A. Terrell
Central Florida

380. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 00:29:27 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43237a67$0$22201$39cecf19@news.twtelecom.net>
Source record: 70776

Richard Clark wrote:
> On 10 Sep 2005 10:42:15 -0700, petercc@care2.com wrote:
>
>
>>I tried an existing omni antenna
>>that is aboout 30" long and a long cable and the signal was
>>nonexistant. With the short cable and that same antenna I was using, I
>>got some hotspots tuned in.
>
>
> Hi Peter,
>
> This 30" antenna is easily ten times too long. It will be very
> directional, and only if you point it (like a rapier) towards the
> transmitter. As it stands, your favored direction is straight up.
> This, of course, is strictly counter to your stated desire for "omni."
>
> Take a cue from the products offered for this class of communication.
> Their antennas are short for reasons that go beyond aesthetics. Take
> heart that you are on the right path. Antenna height (distance above
> you, not length) is always an advantage.
>
> 73's
> Richard Clark, KB7QHC

Which means it was a colinear. It is long for a reason.

Similar antennas are vailable at CompoUSA and most other computer stores.

tom
K0TAR

381. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 00:39:16 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43237cb4$0$32199$39cecf19@news.twtelecom.net>
Source record: 70777
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

an_old_friend wrote:

>
> sure there are facts but it also a fact that i think you are an idoit
> but this sate of being a fact does not make it relavant
>
> nothing your rant saying why the neds Dan was identifing culd not be
> met though other means

>
> 250,00 is relitive small but the issue was never number but land area
>

> more of you absurdity

You might be more credible if you could spell a bit better. At least
use a spell checker so you appear to be less of an idiot.

Of course, your arguments would still be suspect even if you did that.

tom
K0TAR

382. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 01:10:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11i70v9s8amrb94@corp.supernews.com>
Source record: 70778

Tom Ring wrote:
>
> Which means it was a colinear. It is long for a reason.
>
> Similar antennas are vailable at CompoUSA and most other computer stores.
>
> tom
> K0TAR

What you should look for is small plasic-encased bumps (each enclosing a coil) or obvious coiled sections spaced every few inches along the antenna's length. If it has those, it's probably a collinear like Tom says, and will be omnidirectional broadside to the antenna. If it doesn't, and is just a straight piece of wire or rod, it's directional nearly in the direction of the wire like Richard said.

Any reasonable sized coax will have a lot of loss per unit length at that frequency, so do everything you can to keep it as short as possible. Depending on the situation, putting the antenna might or might not help, if putting it higher necessitates making the feedline longer.

Roy Lewallen, W7EL

383. Re: If to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 01:13:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11i715a1qscrc36@corp.supernews.com>
Source record: 70779
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Michael A. Terrell wrote:
>
> Fair Radio used to have some in their catalog, and they were used in
> all of the old Delco (and some other brands) car radios of the '60s and
> '70s.

Just about all the radios I've seen with mechanical pushbuttons for station presets used permeability tuned inductors -- the pushbuttons each just positioned a ferrite core to a preset depth in a coil. It wouldn't be difficult to construct one, unless you're mechanically declined like I am.

Roy Lewallen, W7EL

384. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 01:22:14 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <aFLUe.1753$b37.122@trnddc04>
Source record: 70780

"Tom Ring" <news0002@taring.org> wrote in message
news:43237a67$0$22201$39cecf19@news.twtelecom.net...
> Richard Clark wrote:
>> On 10 Sep 2005 10:42:15 -0700, petercc@care2.com wrote:
>>
>>
>>>I tried an existing omni antenna
>>>that is aboout 30" long and a long cable and the signal was
>>>nonexistant. With the short cable and that same antenna I was using, I
>>>got some hotspots tuned in.
>>
>>
>> Hi Peter,
>>
>> This 30" antenna is easily ten times too long. It will be very
>> directional, and only if you point it (like a rapier) towards the
>> transmitter. As it stands, your favored direction is straight up.
>> This, of course, is strictly counter to your stated desire for "omni."
>>
>> Take a cue from the products offered for this class of communication.
>> Their antennas are short for reasons that go beyond aesthetics. Take
>> heart that you are on the right path. Antenna height (distance above
>> you, not length) is always an advantage.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> Which means it was a colinear. It is long for a reason.
>
> Similar antennas are vailable at CompoUSA and most other computer stores.
>
> tom
> K0TAR

Hi Tom

Isnt 30 inches a little too long for a colinear at 2.4 GHz? I'd guess
that the antenna that Peter has hooked up is a marine radio whip. I'll be
interested in reading more about what he is doing, and where the 30 inch
long antenna came from.

Jerry

385. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 01:46:54 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43238c8e$0$32204$39cecf19@news.twtelecom.net>
Source record: 70781

Roy Lewallen wrote:

> What you should look for is small plasic-encased bumps (each enclosing a
> coil) or obvious coiled sections spaced every few inches along the
> antenna's length. If it has those, it's probably a collinear like Tom
> says, and will be omnidirectional broadside to the antenna. If it
> doesn't, and is just a straight piece of wire or rod, it's directional
> nearly in the direction of the wire like Richard said.
>

You won't see that on these colinears, the radome surrounding them
covers it up. I am thinking they may be the coax style colinears, which
would not have the coils.

tom
K0TAR

386. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 01:50:09 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43238d51$0$32204$39cecf19@news.twtelecom.net>
Source record: 70782

Jerry Martes wrote:

> Hi Tom
>
> Isnt 30 inches a little too long for a colinear at 2.4 GHz? I'd guess
> that the antenna that Peter has hooked up is a marine radio whip. I'll be
> interested in reading more about what he is doing, and where the 30 inch
> long antenna came from.
>
> Jerry

Well, he did specifically state WiFi, so I went with that.

And a colinear can be as long as you'd like, they just don't keep
gaining gain very well after a certain point.

tom
K0TAR

387. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 02:02:27 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126402494.029517.184900@o13g2000cwo.googlegroups.com>
Source record: 70783
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:
> an_old_friend wrote:
>
> > >
> > > sure there are facts but it also a fact that i think you are an idoit
> > > but this sate of being a fact does not make it relavant
> > >
> > > nothing your rant saying why the neds Dan was identifing culd not be
> > > met though other means
> >
> >
> > >
> > > 250,00 is relitive small but the issue was never number but land area
> > >
> >
> > > more of you absurdity
> >
> > You might be more credible if you could spell a bit better. At least
> > use a spell checker so you appear to be less of an idiot.
> >
> > Of course, your arguments would still be suspect even if you did that.

and you give the very reason I don't bother with such most folks have
already made up their minds, why should I put out the effort when in
many cases the aurguement is rejected before it is read
>
> tom
> K0TAR

388. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 02:14:40 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43239310$0$22197$39cecf19@news.twtelecom.net>
Source record: 70784
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

an_old_friend wrote:

>
> and you give the very reason I don't bother with such most folks have
> already made up their minds, why should I put out the effort when in
> many cases the aurguement is rejected before it is read
>

Stupid is as stupid does.

tom
K0TAR

389. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 02:16:15 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4323936f$0$22197$39cecf19@news.twtelecom.net>
Source record: 70785
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
an_old_friend wrote:
> and you give the very reason I don't bother with such most folks have
> already made up their minds, why should I put out the effort when in
> many cases the aurguement is rejected before it is read
>

And I have the balls to admit who I am.

tom
K0TAR
```

390. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 02:16:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11i74rl9t428kcc@corp.supernews.com>
Source record: 70786

Tom Ring wrote:
> Roy Lewallen wrote:
>
>> What you should look for is small plasic-encased bumps (each enclosing
>> a coil) or obvious coiled sections spaced every few inches along the
>> antenna's length. If it has those, it's probably a collinear like Tom
>> says, and will be omnidirectional broadside to the antenna. If it
>> doesn't, and is just a straight piece of wire or rod, it's directional
>> nearly in the direction of the wire like Richard said.
>>
>
> You won't see that on these colinears, the radome surrounding them
> covers it up. I am thinking they may be the coax style colinears, which
> would not have the coils.
>
> tom
> K0TAR

Ah, good points. I hadn't considered either a coaxial (Franklin)
collinear or a radome. In that case, I can't think of an easy way to
tell except by pointing the antenna in the direction of a known signal
and seeing if it gets better (not a collinear) or worse (collinear).
Unless, of course, the manufacturer and model number are known or visible.

Roy Lewallen, W7EL

391. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 02:52:49 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43239c01$0$32195$39cecf19@news.twtelecom.net>
Source record: 70787

Roy Lewallen wrote:

> Ah, good points. I hadn't considered either a coaxial (Franklin)
> collinear or a radome. In that case, I can't think of an easy way to

And why does the world spell colinear collinear? It's not col-linear
it's co-linear. Makes no sense to me.

tom
K0TAR

392. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 02:58:19 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43239d4b$0$22202$39cecf19@news.twtelecom.net>
Source record: 70788

Tom Ring wrote:

> Roy Lewallen wrote:
>
>> Ah, good points. I hadn't considered either a coaxial (Franklin)
>> collinear or a radome. In that case, I can't think of an easy way to
>
>
> And why does the world spell colinear collinear? It's not col-linear
> it's co-linear. Makes no sense to me.
>

For instance, we don't say colaxial cable.

tom
K0TAR

393. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 03:42:16 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <sINUe.4608$Hs6.320@trnddc07>
Source record: 70789

"Tom Ring" <news0002@taring.org> wrote in message
news:43238d51$0$32204$39cecf19@news.twtelecom.net...
> Jerry Martes wrote:
>
>> Hi Tom
>>
>> Isnt 30 inches a little too long for a colinear at 2.4 GHz? I'd guess
>> that the antenna that Peter has hooked up is a marine radio whip. I'll
>> be interested in reading more about what he is doing, and where the 30
>> inch long antenna came from.
>>
>> Jerry
>
> Well, he did specifically state WiFi, so I went with that.
>
> And a colinear can be as long as you'd like, they just don't keep gaining
> gain very well after a certain point.
>
> tom
> K0TAR

Tom

I must be out of touch with the current technology. I thought a 6
wavelength long colinear was too long for practical reasons. It seems that
beam squint with frequency change would rule out a 6 wavelength long
colinear.

Jerry

394. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 03:49:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qs97i1dqnfkvvbtir925d6v9m7p8ge8481@4ax.com>
Source record: 70790

On Sat, 10 Sep 2005 20:50:09 -0500, Tom Ring <news0002@taring.org>
wrote:

>And a colinear can be as long as you'd like, they just don't keep
>gaining gain very well after a certain point.

Hi Tom,

And 30 inches (more than 6 wavelengths long?) would seem to have long
met diminishing returns. Given the prospects of it bobbing on the
ocean, with a successively dipping and rising critical elevation gain
- well that sounds like no kind of solution to a problem.

73's
Richard Clark, KB7QHC

395. Re: If to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 04:38:48 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4323B431.1A170211@earthlink.net>
Source record: 70791
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Roy Lewallen wrote:
>
> Michael A. Terrell wrote:
> >
> > Fair Radio used to have some in their catalog, and they were used in
> > all of the old Delco (and some other brands) car radios of the '60s and
> > '70s.
>
> Just about all the radios I've seen with mechanical pushbuttons for
> station presets used permeability tuned inductors

All of the american made radios were, but some cheap imports weren't.

> -- the pushbuttons
> each just positioned a ferrite core to a preset depth in a coil. It
> wouldn't be difficult to construct one, unless you're mechanically
> declined like I am.
>
> Roy Lewallen, W7EL

I once told one of the Vice president of marketing at United Video
Cablevision that he was mechanically declined and my boss freaked out.
;-) The VP yelled at him and told him to shut up because it was true,
and he was happy that whenever he had to launch a new channel in the
Cincinnati system that everything was set up and ready for him when he
arrived.

Of course, you could make them as individually tuned coils with a
stepper motor or servo per coil.

--
?

Michael A. Terrell
Central Florida

396. how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 04:47:44 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <NdOdnTG2y65pK77eRVn-vw@comcast.com>
Source record: 70792

All,

I am trying to model a loaded vertical using EZNEC. It is fairly easy to start with the vertical model and extend or shorten it. I also think I created a load correctly. However I seem unable to connect the load to the vertical segment. How can that connection be verified?

Also, what type of also load supports a second connection to a second wire to simulate a mid load?

Thanks,
Dan

397. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 05:19:15 UTC
From: eternalsquire@comcast.net
Message-ID: <1126415955.073587.239550@g14g2000cwa.googlegroups.com>
Source record: 70793

Can I drive a class E amp with an SSB signal?

Thanks,

The Eternal Squire

398. Re: Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 05:25:19 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <ubPUe.3326$zG5.1315@bignews1.bellsouth.net>
Source record: 70794
Body handling: HTML body converted to readable text

I don't know myself, but a couple of sources you might try would be
any local club or buddies that might have been told. Or also check out
any QSL cards that might be around if any. Often that info was/is
things to brag about ones station. Wish I had one. LOL
Might even have made some notes in a log book if that is still around.

Good luck. K4TWO Gary

"Howard K0ACF" wrote in message
news:jRyUe.74612$DW1.35802@fed1read06...
> Looks like a Rohn HDX series. I had the HDX 48(48ft. tall) The HDX series
> went to 64 ft. if I remember right.
> "Paul P" wrote in
> message news:v5fUe.214720$5N3.62635@bgtnsc05-news.ops.worldnet.att.net...
>> Gentlemen,
>>
>> I am attempting to identify the tower manufacture of the tower pictured
>> at:
>> http://www.ppinyot.com/antenna.htm. I would like to properly design a
>> base for it given the manufacturers specs plus perhaps pick up
>> additional sections.
>>
>> The tower seems to be of a stamped steel design (not tubular) with
>> stamped steel cross members. It has been well maintained by the silent
>> key's son. I gather it is about 10 to 15 years old. There is an
>> unpainted ladder chained to one side for storage. Please do not confuse
>> this as part of the tower.
>>
>> Also if you happen to recognize the beam please Identify it too.
>>
>> Unfortunately some one discarded all the paper work not knowing it's
>> value.
>>
>> Thanks Paul
>>
>> paul at ppinyot dot com
>>
>> KB3LZP
>>
>
>

399. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 06:27:25 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1126420045.287027.267980@g14g2000cwa.googlegroups.com>
Source record: 70795

Hi Dan,

?? In the "Loads (R+JX)" window, you enter a desired position on a particular wire number, and the value of the load, which presumably would be a coil or a capacitor. It will tell you where the load actually got put on the wire, as it must be in the middle of a segment. You can adjust the number of segments to put the load closer to where you want, if it didn't come out close enough the first time.

A good way to verify that the load is doing something is to change the value of the load and look at what happens to the feedpoint impedance, which you can see in the "Src Dat" (Source Data) window. For example, if you start with a 10.3 meter vertical, 40mm diameter, 11 segments, over perfect ground, with the feedpoint (source) at the middle of the lowest segment, you should find that a coil of 0+j582 ohms gives you very close to resonance: close to zero imaginary component in the feedpoint impedance. Raising the coil reactance causes the feedpoint to become inductive: positive imaginary component. And lowering it causes the feedpoint to become capacitive.

Cheers,
Tom

400. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 07:39:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11i7np9ndnr9i5f@corp.supernews.com>
Source record: 70796

Tom Ring wrote:
>
> And why does the world spell colinear collinear? It's not col-linear
> it's co-linear. Makes no sense to me.
>
> tom
> K0TAR

C'mon now, since when was English logical, in spelling, punctuation, grammer, or usage? You can't be too hard on a language in which slim chance and fat chance mean the same thing, and wise man and wise guy are nearly opposites.

Roy Lewallen, W7EL
-- often rightly accused of being one of the latter of the latter

401. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 07:49:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11i7obsivh8u3c1@corp.supernews.com>
Source record: 70797

To add to Tom's excellent explanation, let me add that you only need one wire to model the vertical. I suggest beginning with the Vert1.ez example antenna to get an idea of how it works. Look at the model with the View Antenna display. Then specify a load in wire 1, 50% of the way from end 1. The load will appear in the View Antenna display as a little square. The Loads Window (where you specified the load) will show that the actual position is 55% of the way from end 1, which is the closest EZNEC could place it with the specified number of wire segments. If you change the number of segments to an odd number, EZNEC will be able to place the load exactly at the middle. You can specify other positions in the same fashion, but it might require more segments to get it really close to where you want.

Source and load positions are specified in exactly the same way.

Roy Lewallen, W7EL

dansawyeror wrote:
> All,
>
> I am trying to model a loaded vertical using EZNEC. It is fairly easy to
> start with the vertical model and extend or shorten it. I also think I
> created a load correctly. However I seem unable to connect the load to
> the vertical segment. How can that connection be verified?
>
> Also, what type of also load supports a second connection to a second
> wire to simulate a mid load?
>
> Thanks,
> Dan

402. Re: Best wire for FM reception (car antenna)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 10:02:50 UTC
From: Laurence Payne <lpayne1NOSPAM@dsl.pipexSPAMTRAP.com>
Message-ID: <uuv7i1dfr61jg151m6cu8lu3duhulnov3o@4ax.com>
Source record: 70798
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

On Thu, 8 Sep 2005 19:51:11 -0400, "Frank" <NOSPAM@NOSPAM.com> wrote:

>What is the best type of "wire" for making a homemade car antenna
>to pick up FM radio. Is it copper? Aluminium? What thickness or
>size. Lenght?

Copper will turn a pretty green colour and isn't particularly strong.
A steel coat hanger is traditional and works perfectly well.
Electrically, anything conductive will do. Your only considerations
are mechanical and appearance.

About 30 inches is an optimum length. Half that will do.

403. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 12:54:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg19eh$3h1$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70799

> Single turn loops work well for transmitting. Multiple turn
> transmitting loops have a nasty habit of disappointing the user.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
==========

The reason a multi-turn maggloop of the same diameter would be
disappointing is because of increased loss in the loop conductor.

The ability to collect or radiate signals is a function only of the
diameter, ie., the longest linear dimension. Alternatively stated, a
function of the area enclosed.

With a single turn loop, conductor loss is due simply to skin effect.

With a multi-turn loop and the same amount of copper, proximity effect
comes into play and loss resistance increases faster than radiation
resistance.

Also, with a transmitting magloop, for the same power input, the
voltage across the tuning capacitor increases proportional to the
number of turns. Ridiculously high voltages appear. Although, the
value of the capacitor in pF is very much smaller, the physical size
of the capacitor remains the same.

Reg.

404. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 13:34:48 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43243278$0$22208$39cecf19@news.twtelecom.net>
Source record: 70800

Richard Clark wrote:

> Hi Tom,
>
> And 30 inches (more than 6 wavelengths long?) would seem to have long
> met diminishing returns. Given the prospects of it bobbing on the
> ocean, with a successively dipping and rising critical elevation gain
> - well that sounds like no kind of solution to a problem.
>
> 73's
> Richard Clark, KB7QHC

Well, you might think they would be, but the industry doesn't. Here's a
70 incher.

http://www.firstmilewireless.com/prod_ant2ov15-dt.html

And I agree, you'd need one of those fancy auto-leveling systems that
Carnival Cruise Line uses to make it work on the water.

tom
K0TAR

405. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 13:45:56 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43243515$0$32194$39cecf19@news.twtelecom.net>
Source record: 70801

Richard Clark wrote:

> Hi Tom,
>
> And 30 inches (more than 6 wavelengths long?) would seem to have long
> met diminishing returns. Given the prospects of it bobbing on the
> ocean, with a successively dipping and rising critical elevation gain
> - well that sounds like no kind of solution to a problem.
>
> 73's
> Richard Clark, KB7QHC

And before anyone mentions the downtilt or polarization, here's a horizontally polarized one with no downtilt. Unfortunately no pattern shown for this one, though.

http://www.firstmilewireless.com/prod_ant2oh13.html

tom
K0TAR

406. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 14:06:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126447773_9859@spool6-east.superfeed.net>
Source record: 70802

eternalsquire@comcast.net wrote:
> Can I drive a class E amp with an SSB signal?

You can but you won't like the results. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

407. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 14:48:07 UTC
From: "Harold E. Johnson" <w4zcb@mchsi.com>
Message-ID: <HsXUe.343816$xm3.223174@attbi_s21>
Source record: 70803

"Cecil Moore" <mycall@arrl.net> wrote in message
news:1126447773_9859@spool6-east.superfeed.net...
> eternalsquire@comcast.net wrote:
>> Can I drive a class E amp with an SSB signal?
>
> You can but you won't like the results. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

Funny, Nate Sokal, who owned the patent thinks you can.

W4ZCB

408. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 15:00:13 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4324467D.9070703@comcast.net>
Source record: 70804

Let me make sure I understand. First I used the LCR configuration, that should not make a difference? Are you saying a load is placed in the middle of a segment? If I wanted to create a center loaded vertical one way would be to create a 1 wire antenna and place the load in the middle? Is that correct?

Thanks,
Dan

K7ITM wrote:
> Hi Dan,
>
> ?? In the "Loads (R+JX)" window, you enter a desired position on a
> particular wire number, and the value of the load, which presumably
> would be a coil or a capacitor. It will tell you where the load
> actually got put on the wire, as it must be in the middle of a segment.
> You can adjust the number of segments to put the load closer to where
> you want, if it didn't come out close enough the first time.
>
> A good way to verify that the load is doing something is to change the
> value of the load and look at what happens to the feedpoint impedance,
> which you can see in the "Src Dat" (Source Data) window. For example,
> if you start with a 10.3 meter vertical, 40mm diameter, 11 segments,
> over perfect ground, with the feedpoint (source) at the middle of the
> lowest segment, you should find that a coil of 0+j582 ohms gives you
> very close to resonance: close to zero imaginary component in the
> feedpoint impedance. Raising the coil reactance causes the feedpoint
> to become inductive: positive imaginary component. And lowering it
> causes the feedpoint to become capacitive.
>
> Cheers,
> Tom
>

409. Re: lf to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 15:21:01 UTC
From: TRABEM <>
Message-ID: <8hi8i1h4ihs2sba4jaig5lslt25ck70u0g@4ax.com>
Source record: 70805
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks to all that commented. Although I don't have an answer, the content of the discussion was helpful.

I'm not exactly fond of electronic switching, but it's probably adequate since atmospheric noise dominates in the vlf and lf range anyway.

I'm trying to understand the butterworth filter now, with the hope of designing a bandpass filter over a wide range of frequencies rather than a variable unit.

Regards,

T

410. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 16:48:48 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dg1n5e$nh3$1@mailhub227.itcs.purdue.edu>
Source record: 70806

You seem to be exceedingly knowledgeable about loop antennas. I have limited space available for a 160 meters antenna. What advice do you have about a loop antenna for 160 meters constructed out of 3/4" copper pipe with an octagon shape, and a perimeter of 100 feet. The plane of the loop would be vertical with the bottom of the loop about one foot high. The loop would be fed at the bottom, and the remotely tuned series capacitor would be centered in the top side of the loop. Does this project seem doable and does it make sense?
John, N9JG

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dg19eh$3h1$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> The reason a multi-turn maggloop of the same diameter would be
> disappointing is because of increased loss in the loop conductor.
>
> The ability to collect or radiate signals is a function only of the
> diameter, ie., the longest linear dimension. Alternatively stated, a
> function of the area enclosed.
>
> With a single turn loop, conductor loss is due simply to skin effect.
>
> With a multi-turn loop and the same amount of copper, proximity effect
> comes into play and loss resistance increases faster than radiation
> resistance.
>
> Also, with a transmitting magloop, for the same power input, the
> voltage across the tuning capacitor increases proportional to the
> number of turns. Ridiculously high voltages appear. Although, the
> value of the capacitor in pF is very much smaller, the physical size
> of the capacitor remains the same.
> ----
> Reg.
>
>

411. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 18:31:39 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4324780B.9010904@comcast.net>
Source record: 70807

Roy and Tom,

Thank you. I actually tried that as one experiment. The loads window showed the connection as you described. When the antenna is configured close to what I expect there is a resonance near the intended frequency. So that is progress. Now I am just trying to tweak the parameters.

On the SWR scan is there a way to print or plot the step outputs? I am trying to determine the resonance point.

Thanks,
Dan

Roy Lewallen wrote:
> To add to Tom's excellent explanation, let me add that you only need one
> wire to model the vertical. I suggest beginning with the Vert1.ez
> example antenna to get an idea of how it works. Look at the model with
> the View Antenna display. Then specify a load in wire 1, 50% of the way
> from end 1. The load will appear in the View Antenna display as a little
> square. The Loads Window (where you specified the load) will show that
> the actual position is 55% of the way from end 1, which is the closest
> EZNEC could place it with the specified number of wire segments. If you
> change the number of segments to an odd number, EZNEC will be able to
> place the load exactly at the middle. You can specify other positions in
> the same fashion, but it might require more segments to get it really
> close to where you want.
>
> Source and load positions are specified in exactly the same way.
>
> Roy Lewallen, W7EL
>
> dansawyeror wrote:
>
>> All,
>>
>> I am trying to model a loaded vertical using EZNEC. It is fairly easy
>> to start with the vertical model and extend or shorten it. I also
>> think I created a load correctly. However I seem unable to connect the
>> load to the vertical segment. How can that connection be verified?
>>
>> Also, what type of also load supports a second connection to a second
>> wire to simulate a mid load?
>>
>> Thanks,
>> Dan

412. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 19:17:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126466410_10755@spool6-east.superfeed.net>
Source record: 70808

Harold E. Johnson wrote:
> "Cecil Moore" <mycall@arrl.net> wrote:
>
>>eternalsquire@comcast.net wrote:
>>>Can I drive a class E amp with an SSB signal?
>>
>>You can but you won't like the results. :-)
>
> Funny, Nate Sokal, who owned the patent thinks you can.

I'm assuming that "drive a class E amp with an SSB signal"
means an SSB signal on the input, i.e. linear amplification
is required. How does Mr. Sokal linearize the non-linear
characteristics of the Class-E amp? I'm not saying it can't
be done - but I don't know how to do it and there's no claim
of linear operation on any of the Class-E Amp web pages.
--
73, Cecil http://www.qsl.net/w5dxp

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413. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 19:27:30 UTC
From: Dave <noone@nowhere.com>
Message-ID: <_J6dnYLePZSyGLneRVn-iQ@crocker.com>
Source record: 70809

"Cecil Moore" <mycall@arrl.net> wrote in message
news:1126466410_10755@spool6-east.superfeed.net...
> Harold E. Johnson wrote:
>> "Cecil Moore" <mycall@arrl.net> wrote:
>>
>>>eternalsquire@comcast.net wrote:
>>>>Can I drive a class E amp with an SSB signal?
>>>
>>>You can but you won't like the results. :-)
>>
>> Funny, Nate Sokal, who owned the patent thinks you can.
>
> I'm assuming that "drive a class E amp with an SSB signal"
> means an SSB signal on the input, i.e. linear amplification
> is required.

its only required if you want the output to sound like the input. there are
lots of amplifiers on 27mhz and other bands where this is not a requirement.

414. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 19:29:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126467122_10775@spool6-east.superfeed.net>
Source record: 70810

dansawyeror wrote:
> Thank you. I actually tried that as one experiment. The loads window
> showed the connection as you described.

There's one point of caution. The lumped load function will
not accurately predict the phase shift through a real-world
coil. Many antenna designs use phasing coils. The lumped load
feature of EZNEC will not accurately model those antennas.
If phasing coils are used, the EZNEC helix option should
be used which does seem to model the phase shift through the
coil.
--
73, Cecil http://www.qsl.net/w5dxp

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415. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 19:33:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126467397_10785@spool6-east.superfeed.net>
Source record: 70811

Dave wrote:

> "Cecil Moore" <mycall@arrl.net> wrote:
>>I'm assuming that "drive a class E amp with an SSB signal"
>>means an SSB signal on the input, i.e. linear amplification
>>is required.
>
> its only required if you want the output to sound like the input. there are
> lots of amplifiers on 27mhz and other bands where this is not a requirement.

Well, maybe I presumed too much. I certainly wouldn't like it but
of course, I wouldn't force my likes and dislikes on everyone. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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416. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 20:15:41 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <Nf0Ve.10359$9i4.10170@newsread2.news.atl.earthlink.net>
Source record: 70812
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Tom Ring" <news0002@taring.org> wrote in message
news:43239310$0$22197$39cecf19@news.twtelecom.net...
> an_old_friend wrote:
>
>>
>> and you give the very reason I don't bother with such most folks have
>> already made up their minds, why should I put out the effort when in
>> many cases the aurguement is rejected before it is read
>>
>
> Stupid is as stupid does.
>
> tom
> K0TAR
>

And one thing about it....Ya just cain't fix stupid!!

Dan/W4NTI

417. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 20:16:42 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <Kg0Ve.10360$9i4.4123@newsread2.news.atl.earthlink.net>
Source record: 70813
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Michael A. Terrell" <mike.terrell@earthlink.net> wrote in message
news:43236BFF.F90C9FB9@earthlink.net...
> Dan/W4NTI wrote:
>>
>> Sure they could. And if we still had WWI carrier pidgeons they could be
>> used also. Or perhaps they could mail a letter.
>
>
> Sure they could mail a letter. After the US postal service reopens
> mail service to the affected areas. There were notices on the USPS
> website telling that next day, and some other mail services were not
> available for the time being.
>
>
> --
> ?
>
> Michael A. Terrell
> Central Florida\

That was my point, sir.

Dan/W4NTI

418. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 20:56:54 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <XpedncTbSoeEB7neRVn-3w@comcast.com>
Source record: 70816

All,

Thank you for your help to get the basic model in place. It seems to be working except that ground resistance does not appear to be modeled. This may be an oversimplification my part in how the source is defined or connected. It is a simple source connected to the first, lower, segment. The end of that segment is also connected to a radial system of 8 quite short radials. I would expect to see the feedpoint impedance reflect the ground system. However, it seems to reflect the vertical element only. That value is very close to a theoretical loaded element over a perfect ground. This ground is a medium ground so it should have some visible effect.

Is it obvious what am I doing wrong?

Thanks,
Dan

Cecil Moore wrote:
> dansawyeror wrote:
>
>> Thank you. I actually tried that as one experiment. The loads window
>> showed the connection as you described.
>
>
> There's one point of caution. The lumped load function will
> not accurately predict the phase shift through a real-world
> coil. Many antenna designs use phasing coils. The lumped load
> feature of EZNEC will not accurately model those antennas.
> If phasing coils are used, the EZNEC helix option should
> be used which does seem to model the phase shift through the
> coil.

419. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 21:09:26 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <a21Ve.10383$9i4.5343@newsread2.news.atl.earthlink.net>
Source record: 70817
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

This is to 'an old friend' in particular and his dingaling buddies.

Perhaps this E-Mail I just received from the Alabama Section Emergency Coordinator will "HELP" 'an old friend' to understand. Anyone want to bet?

Please notice the comments about using tactical and formal message handling. FYI tactical would be to dispense with the formal headings. Just use the basic address/phone number. Then the operator that received the message makes a phone call to deliver anywhere in the world that allowed 3rd Party traffic.

Formal should be self explainatory, but knowing the abilities of Mr. 'an old friend' I'll translate....It is using standard ARRL Formatted messages as in;

Number 139 W (Welfare) W4NTI CHECK 12 ANNISTON AL SEPT 10
TO MR JAMES KIRK
STARSHIP ENTERPRISE
ANYWHERE IN THE UNIVERSE ZIP CODE
PHONE NR
BT
ALL IS WELL HERE MR. SPOCK X HOPE
TO SEE YOU SOON BT JAMES T. KIRK

BT

NNNN (MEANS NOTHING FURTHER) (USUALLY SENT IN CW OR DIGITAL MODES AND NOT USED IN PHONE)

You do notice the word 'sites' right? That is plural for many locations.

I especially want your response to the paragraph concerning the highly vaunted 800 mhz system. That FAILED immediatly. Then please comment about the use of Hams to DISPATCH Police and Fire. Not to mention the comment of how these same hams helped FIX these sites to attempt getting the Police and other Emergency agencies back on line.

Please also note that these Ham teams VOLUNTARILY PUT THEMSELVES into the middle of one of worst, if not THEY worst ecological disaster in this countries history. Providing their own equipment, their own supplies, their own gas, etc. Note how much that is appreciated and does not ADD to the problem.

No bragging, no looking for headlines, in fact NO NAMES AT ALL. So tell me 'an old friend' where is all the bragging????????

I doubt this will do a bit of good with you and your 1/3 of the newsgroup
that support you. But these are the facts. Believe it if you want.

OR.....just remove the egg off you face and drop the subject.

Dan/W4NTI

> Good morning Folks,
>
> I can't begin to tell you how awesome your response to Hurricane Katrina
> and the aftermath has been. The Tactical and Formal traffic handling as
> well as the overall professionalism, has truly been impressive.
>
> Those of you that have packed up and gone to the needed sites to operate
> in dismal conditions deserve all of our gratitude. You have made our state
> proud, and me too.
> For those who went but were turned around because of mis-communication,
> please accept my sincere apologies. With a half million people homeless,
> and hundreds of thousands without power, water and basic services, all of
> us in Emergency Services were simply overwhelmed. We're trying to get it
> right, and using the experience to make sure of a good plan should this
> magnatude of event ever happen again.
>
> This is what we have learned:
>
> The 800mhz and other trunked systems commonly used by local and state
> agencies, were the first to go in the hard hit areas. In many cases, we
> found Police and Fire units were dispatching from a car or HT. Even after
> two weeks, we still have hams handling All of the EOC and Public Service
> communications in a number of counties and Parishes on the coast. This is
> really hot gristly work. Many of the hams were able to repair the
> commercial antenna systems and bring some public services back online.
> Cell phones were out initally, but began to come up after a week, but many
> areas are still overloaded or spotty.
> The most valuable asset by far has been the totally self contained ham or
> team who went in with radios, generators, antennas, food, water, and
> sleeping bags. This is what everyone onsite began to ask for, and what we
> are running short of. Keep this in mind for a club or group project in the
> future.
>
> ARRL has set up a Clearing House for needed hams at
> http://www.arrl.org/FandES/field/agencies/.
> Also Greg W4OZK has beed working as Amateur Radio liaison at the American
> Red Cross Disaster Operation Center that has been set up in Montgomery.
> You can contact him at DR871-06RTT-RCO3@usa.redcross.org for placement.
>
> We are still looking at at least 60 days of operations that will require
> our assistance. Anything that you or your clubs can do will mean a great
> deal to those folks who still can't communicate with the needed agencies.
>
> 73's and God Bless, Jay Isbell KA4KUN ARRL Alabama Section Emergency
> Coordinator

> ARES - ARES Mutual Assistance Team - ARES Rapid Response Team - "It's Not
> Just A Hobby Anymore"
>
>

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420. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 21:10:08 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <Q21Ve.10384$9i4.10311@newsread2.news.atl.earthlink.net>
Source record: 70818
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

I think he listened to Dr. Peppers Lonely Hearts club band way way tooooooo
much....hi hi

Dan/W4NTI

"Cmdr Buzz Corey" <me@that.moc> wrote in message
news:zaOdnTg7KpJxC7neRVn-jw@gbronline.com...
> Dan/W4NTI wrote:
>>>
>> Just where did you get the notion that Montgomery only needed to talk
>> across town?
>
> The voices in his head told him so.

421. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 21:22:03 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126473723.008658.199030@f14g2000cwb.googlegroups.com>
Source record: 70819
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
> "Tom Ring" <news0002@taring.org> wrote in message
> news:43239310$0$22197$39cecf19@news.twtelecom.net...
> > an_old_friend wrote:
> >
> >>
> >> and you give the very reason I don't bother with such most folks have
> >> already made up their minds, why should I put out the effort when in
> >> many cases the aurguement is rejected before it is read
> >>
> >
> > Stupid is as stupid does.
> >
> > tom
> > K0TAR
> >
>
>
> And one thing about it....Ya just cain't fix stupid!!

SoP insult any that dare question
>
> Dan/W4NTI

422. What ham radio is doing with Katrina communications

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 21:29:43 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <bl1Ve.10397$9i4.1433@newsread2.news.atl.earthlink.net>
Source record: 70820
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

For those of you that want to know what ham radio is doing with Katrina communications, enjoy the read.

Dan/W4NTI

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The ARES E-Letter
Special Edition
September 11, 2005
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Edited by Rick Palm, K1CE

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ARES reports, other related contributions, editorial questions or comments: Rick Palm, K1CE, k1ce@arrl.net
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SPECIAL EDITION TWO: HURRICANE KATRINA FOLLOW-UP

It's been quite a week of studying the ARES response to Hurricane Katrina while keeping a wary eye on storm Ophelia, just off shore here in Flagler County, on the Florida central east coast. Local ARES was on alert. We had winds and driving rain as Ophelia tried to decide which way to turn. Yesterday, it marched to the northeast and today we have an uneasy, almost surreal calm. But, the sky is clear.

Back to Katrina: I can't remember a more comprehensive ARES response, especially in terms of inter-county and interstate mutual assistance, plus the concomitant, unprecedented activity by ARRL HQ staff in support of that response, ever. Even the Chief Operating Officer Harold Kramer, WJ1B, worked over the Labor Day holiday weekend. And word arrived yesterday that the "Hurricane Katrina Amateur Radio Volunteers Needed Clearing House" now is live on the ARRL Web site <http://www.arrl.org/FandES/field/agencies/>. The ARRL Letter: "This database will be the primary means for relief organizations requiring Amateur Radio volunteers for communication support to list their needs. Additionally, volunteers looking to help may search the listings to match up their capabilities with the various requirements." That is a first, as far as I know. Credit Joe Tomasone, AB2M, for the Hurricane Katrina Disaster Communications Volunteer Registration and Message Traffic Database he developed.

On the Northern Florida ARES Net this morning, a report was made that "renegade" hams were turned away from an affected area and were to be

adorned with "metal bracelets" if they did not leave. Message: Coordinate your volunteer efforts with your own home ARRL Section Emergency Coordinator (SEC), or his/her designees. Also, be prepared to be self-sufficient: "If you need it, you bring it," advised Alabama SEC Jay Isbell, KA4KUN. - K1CE

"All of us know this will be a months-long effort. Just because we are unable to immediately send those of you who have registered, that does not mean we will not need you in the future. Your patience in awaiting an assignment that may never come is appreciated. The requirements are likely to change in the future; we are unable to give any idea of when that will be." - Jerry Reimer, KK5CA, STX SEC

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+ Digital Outlets
+ Briefs
+ Response and Recovery HF Frequencies
+ Resource Links
+ Final Note and Prediction

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+ NORTHERN TEXAS SECTION RESPONSE

The NTX Section had been on alert since Monday, August 29. NTX SEC Harris Swan, K5MWC, and STX SEC Jerry Reimer, KK5CA, had agreed early on a plan to make effective use of NTX ARES members in response to requests from the affected area. That plan was to prepare a list of people volunteering to go if requested; Reimer would coordinate all requests for assistance.

NTX ARES has primarily been supporting the West Gulf ARES Emergency Net, dealing with H/W traffic, and supporting Red Cross, Salvation Army, and FEMA. Several of the county EOCs requested support as they anticipated operations with the large number of evacuees expected.

NTX will supplement resources in the affected area, provide support to local shelter operations and support relief agencies in response to their requests. The tempo will certainly pick up as time goes by; NTX ARES is planning for long-term needs. -- NTX SEC Harris Swan,

K5MWC

The following is culled from a status report by the indefatigable Jerry Reimer, KK5CA, South Texas SEC: Hurricane Katrina ARES operations continue in Louisiana, Alabama, Mississippi, North and South Texas sections, using operators recruited from Louisiana, Arkansas, Mississippi, Texas, Tennessee, Florida and other nearby states and sections.

+ LOUISIANA

ARES continues to support Red Cross shelter and Southern Baptist Convention debris-clearing operations in St. Tammany parish, where disaster relief workers are housed and fed at the First Baptist Church in Covington. In Washington Parish, ARES operators are arriving to provide critical communication among hospitals and the parish EOC. Over a dozen operators from Texas alone have traveled to Louisiana. Victoria County (Texas) ARES EC John Wagner, WA5VBP, flew into the New Orleans airport where it was determined that his assignment was unsafe; he was sent on to serve in Baton Rouge.

Communications among the field teams and the state EOC in Baton Rouge continues using HF voice on 75 meters and 40 meters. Surprisingly, many VHF and UHF repeaters remained operational after the storm's passing. Louisiana SEC Gary Stratton, K5GLS, temporarily delegated his authority to former SM Al Oubre, K5DPG. Stratton will be working on restoring the communications infrastructure.

In yesterday's ARRL Letter, Stratton was cited as saying Amateur Radio was the only means for state officials at the state EOC in Baton Rouge to communicate earlier this week with parishes above Lake Pontchartrain. Also, there was a communication to the EOC from FEMA that said, "Ham radio is our prime communications with you, and they should get anything they need."

Reports also have ARES ops even loaning government agencies their equipment.

+ MISSISSIPPI

The hardest hit areas are perhaps the counties closest to the Gulf coast, especially Hancock and Harrison Counties. ARES DEC Tom Hammack, W4WLF, requested 25 ARES operators for critical communication among EOCs, hospitals, and shelters. ARRL Northern Florida, West Central Florida and Southern Florida Sections are sending self-sufficient teams to meet this urgent need, and a few operators are coming from Arkansas. Hammack said his operators are sleeping on the floor where they are assigned. State RACES Officer and ARES DEC Ron Brown, AB5WF, is working on a staging area for Amateur Radio responders near the Mississippi Emergency Management Agency (MEMA) in Jackson. Mississippi SM/SEC Malcolm Keown, W5XX, received a replacement generator and now has telephone and Internet

service.

[In correspondence with Malcolm, he gave me an appreciation for their mental status and what they are going through on the ground in Mississippi: "At this point nobody has much time to document activities. Nobody at this point really has a clear enough mind to put together a coherent story." -- K1CE]

+ ALABAMA

The state capitol of Montgomery was the scene of processing and orienting Amateur Radio volunteers for Red Cross and other duty in Louisiana and Mississippi. Some volunteers will help support communication at Red Cross shelters set up for evacuees, while others will provide tactical communication for feeding stations or for emergency management. Alabama SM Greg Sarratt, W4OZK, has been coordinating ham radio volunteers at the Montgomery site. - ARRL Letter

+ SOUTH TEXAS

The Red Cross reports housing more than 142,000 people in 485 shelters in 18 states. Texas has over 230,000 people who fled. Orange County ARES EC Rocky Wilson, N5MTX, has ARES operators supporting seven Red Cross facilities that include distribution centers and shelters. Since being activated on August 27, 35 ARES operators have provided over 1,200 person-hours, as operations continue. ARES groups from adjacent Jefferson and Polk Counties are providing much-needed mutual aid.

ARES District 14 (Harris County) DEC Ken Mitchell, KD2KW, was requested by the county emergency management office (HCOEM) to provide four operators 24 hours per day, on-site at the Houston Astrodome, and two at the county EOC, beginning September 1. Since then, more than 90 operators have provided over 720 person-hours of direct communications support. All four county ARES ECs are providing operators at both sites.

Managing the incoming health and welfare inquiry messages is overwhelming nearly all NTS resources, especially at the local level. To mitigate this, Amateur Radio clubs have been asked to contact nearby shelters as often as possible to pick up outgoing messages and process them into the NTS by any available means.

At the request of the state Adjutant General's office, Travis County ARES EC Don Dudley, AC5YK, facilitated National Guard in Waco with communication with Guard elements at the Louisiana Superdome.

+ NEW ORLEANS

STX SEC Jerry Reimer, KK5CA, reports: "Amateur Radio operators are beginning to be sent into areas around New Orleans to support command and control operations for Red Cross and other disaster relief

operations. The equipment requirement is VHF and UHF FM. Portable, hand-held and mobile stations are needed. Conditions remain primitive. A pass is required from the Louisiana State Police for access beyond roadblocks. Similar requirements exist in Mississippi, where the state EOC is located in Jackson."

+ NORTHWEST HARRIS COUNTY (TEXAS) ARES

From Hal Merritt, KD5HWW, EC, Northwest Harris County (Texas) ARES: "I have a few moments to breathe and share some notes. We have three running missions: a deployment near Slidell, an operator in New Orleans, and the local event.

The local mission consists of serving the mass shelters in Houston. We saw rapid escalation, much more misinformation than information, and a dynamic situation. The core problem was one we've never seen before: We had trained and drilled on mass evacuations, but not the reverse (mass incoming evacuees). Our local resources were quickly overwhelmed, and I pulled the trigger on our MOU with surrounding county ARES groups. I am now tasking hams from several counties, but may be expanding my plea for operators statewide. The problem is that there is no lodging of any kind to be had. Every hotel and motel is completely full with evacuees.

There is ample local infrastructure, except housing. The event is running along the FEMA ICS (Incident Command System) and UC (Unified Command) scripts. It may seem like chaos to the untrained eye, but it is a thing of beauty to see it working so well.

Normally, an ARES response team would report to, and be tasked by, the Liaison person of the FEMA Command Staff. There, it might be used as an ICS resource or tasked to Logistics for assignment to Task Forces or Strike Teams. Amateur Radio is not yet an official FEMA Resource Type, but that is being worked on. In this event, the Harris County OEM called us. The EOC is attached to ICS under Logistics, and that is how we fit into this event. The ICS is on site at the Astrodome complex.

The ARES response has two locations. The first team is situated with the EOC, providing communication for logistics (resource scheduling and support of the Dome team). They are making entries into a master event log, also.

The main effort is in the field, however. We have teams of four to six operators. There is a Team Leader who is in charge. He/she is responsible for on-site task assignments and for getting the relief team quickly up to speed. The Team Leaders are ARES AECs, or other amateurs with large public service event experience.

We are running six-hour shifts. No one is scheduled for more than six hours, and they have only one shift per day. Having seen what happens when someone gets too tired, we would rather do without, than have someone get hurt; or worse, get other people hurt. Superheroes

need not apply.

The ARES leadership is focused on coordination. Every possible task is being delegated. Although we are working 12-hour days, the real action is with the Team Leaders and Net Controls. No, things are not being done exactly like we would have done it, but it is getting done; and generally, with the highest degree of professionalism. Every time I screw up, there seems to be a number of folks there to beat me up and get the job done right.

Please relay my deepest gratitude to all that have stepped up to the plate. - Contact Hal Merritt, KD5HWW, at <hal.merritt@worldnet.att.net>

+ HILLSBOROUGH (FLORIDA) OPS DEPLOYED TO MISSISSIPPI MAKING A DIFFERENCE FOR KATRINA SURVIVORS

Six trained communication volunteers from the Tampa Bay, Florida, area (sponsored by the Hillsborough County EOC) have been in Mississippi. Using ham radio while awaiting their deployment with state of Florida communications assets, they became one of the few outlets for "I'm Alive" messages out of the area. With local operators in the affected area providing communications to local police, fire, and search teams, there has been limited means of transmitting H/W messages from the victims to their families outside the disaster zone.

Members of the Hillsborough team have been visiting shelters and feeding stations collecting messages from victims. More than 100 messages have been transmitted from Gulfport to Tampa via the Tampa Amateur Radio Club, and local hams in Tampa have been making heart-breaking phone calls to loved ones across the country who had no word for a week on the fate of their family members in Mississippi.

The official mission of the Hillsborough team is to set up and operate EDICs (Emergency Deployable Interoperable Communications System), a fly-away computer-controlled communications system that interconnects radios and cell phones of different frequencies and types so that public service communication can be restored in a disaster area. It allows the radios that survived to be put to use so that police officers and firefighters can better coordinate recovery operations.

The EDICs unit may be tasked to Stennis Space Center in Hancock County, or to Keesler Air Force Base, Mississippi. The team is to deploy with Florida law enforcement teams staged in Gulfport. -- Pete Kemp, KZ1Z, West Central Florida Section PIO

Gary Sessums, KC5QCN, member of the Hillsborough team writes: "Thanks for the mention in the ARES newsletter about the Hillsborough County ARES/RACES deployment. We are on site in Biloxi and Gulfport, Mississippi. We have passed over 100 H/W messages in addition to our

public safety tasking. We are on the MARS, CAP, and SHARES nets, in addition to Amateur Radio. I am trying to arrange relief for the local ARES/RACES operators at the Harrison County EOC, as those guys have been running non-stop since before the storm hit."

+ INTEROPERABILITY TIP

Watching in frustration at the breakdown of communications in the Gulf coast response, I was made acutely aware of the viability of Amateur Radio in terms of interoperability. We have the ability to change frequencies in our radios to serve the location and needs of the area.

Mobile HF, VHF and UHF radios can be re-programmed on the fly. With that in mind, one of the necessary contents of anyone's "grab and go" equipment should be the manuals, or copies of specific pages, for any radio they carry with them.

I also write down the necessary steps -- and only the necessary steps -- to program and use the radio away from the manual. I word process the steps small enough so that I can laminate them as part of my credentials lanyard. As a backup, I put another credit-card-size laminated copy in a wallet that I keep separate in a coat pocket or in the cargo pocket of my trousers. -- Chuck Heron, KD7BWG, DEC, Gila County ARES, Arizona, Executive Officer, Gila County EMCOMM (ARES/RACES), <kd7bwg@arrl.net>

+ ON RESPONDER FATIGUE

From Fred Leif, W6WTI: Thank you for putting out the special edition ARES E-Letter. It is important that hams outside the impact and support areas have a sense of the service that is being provided so that we can help explain to our neighbors and the public the vital role that Amateur Radio is playing.

Amateur Radio serves best while the communications emergency exists. The full response and recovery from Katrina will take a very long time, but when the response agencies and recovery teams have established networks that meet their communications needs, the hams should be allowed to stand down. It will be difficult to determine when this occurs, but the ARES leaders should keep an eye on this ball. We don't want "responder fatigue" to the extent that we can't get operators for the next event. Bringing our service to bear on the communications emergency, and recognizing when it is time to step aside is a vital management function.

+ DIGITAL OUTLETS

Louisiana SEC Gary Stratton, K5GLS, reports "We now have digital (Pactor/Internet/WL2K) outlets for H/W traffic into the areas noted below in Louisiana and Mississippi. National Traffic System (NTS) traffic can be sent to <ae5v@winlink.org>. At the point that destination traffic handlers feel they can take on all comers, the

directions to reach them will be shared. Louisiana towns and parishes: St. Tammany, Abita Spring, Covington, Folsom, Lacombe, Madisonville, Mandeville, Pearl River, Son, Slidell, Tangipahoa, Amite, Hammond, Independence, Kentwood, Ponchatoula, Roseland, Tangipahoa, Ticfaw, Terrebonne, Houma, Washington, Angie, Bogalusa, Franklinton, Varnado. Mississippi Towns: Gautier, Ocean Springs, Pascagoula. - Relayed by Benson Scott, AE5V

+ BRIEFS:

The Ohio Single Side Band Net (OSSBN) was to announce that H/W traffic will be accepted. OSSBN Net Manager Connie Hamilton, N8IO, who is also an Assistant Section Manager, said conditions have changed, allowing for a reasonable chance of traffic getting delivered. -- Joe Phillips, K8QOE, Ohio Section Manager

+ HURRICANE KATRINA HF RESPONSE AND RECOVERY FREQUENCIES

The following frequencies and links are the courtesy of John Mayger, W4DJ. As far as net activity is concerned, I've been listening primarily to the Gulf Coast ARES Net on 7285 kHz, and the SATERN Net on 14.265 MHz, although I'm sure there are many other active nets. Good propagation to the Florida east coast from those two nets have allowed me to monitor their excellent, professional work. - K1CE

2802.4 USB American Red Cross Disaster
3171.4 USB American Red Cross Disaster
5136.4 USB American Red Cross Disaster
5141.4 USB American Red Cross Disaster
5211.0 USB FEMA
5236.0 USB SHARES Coordination Network
6859.5 USB American Red Cross Disaster
7507.0 USB USN/USCG hurricane net
7550.5 USB American Red Cross Disaster (primary)
7698.5 USB American Red Cross Disaster
9380.0 USB USN/USCG hurricane net
10493.0 USB FEMA
14396.5 USB SHARES Coordination Network

AMATEUR HF GULF COAST HURRICANE NETS

3845.0 LSB Gulf Coast West Hurricane
3862.5 LSB Mississippi Section Traffic
3873.0 LSB Central Gulf Coast Hurricane
3873.0 LSB Louisiana ARES Emergency (night)
3873.0 LSB Texas ARES Emergency (night)
3873.0 LSB Mississippi ARES Emergency
3910.0 LSB Mississippi ARES
3910.0 LSB Louisiana Traffic
3923.0 LSB Mississippi ARES
3925.0 LSB Central Gulf Coast Hurricane
3925.0 LSB Louisiana Emergency (altn)

3935.0 LSB Central Gulf Coast Hurricane
3935.0 LSB Louisiana ARES (health and welfare)
3935.0 LSB Texas ARES (health and welfare)
3935.0 LSB Mississippi ARES (health and welfare)
3935.0 LSB Alabama Emergency
3940.0 LSB Southern Florida Emergency
3950.0 LSB Northern Florida Emergency
3955.0 LSB South Texas Emergency
3965.0 LSB Alabama Emergency (altn)
3967.0 LSB Gulf Coast (outgoing traffic)
3975.0 LSB Texas RACES
3993.5 LSB Gulf Coast (health & welfare)
3995.0 LSB Gulf Coast Wx

7225.0 LSB Central Gulf Coast Hurricane
7235.0 LSB Louisiana Emergency
7235.0 LSB Central Gulf Coast Hurricane
7235.0 LSB Louisiana Emergency
7240.0 LSB American Red Cross US Gulf Coast Disaster
7240.0 LSB Texas Emergency
7243.0 LSB Alabama Emergency
7245.0 LSB Southern Louisiana
7248.0 LSB Texas RACES
7250.0 LSB Texas Emergency
7260.0 LSB Gulf Coast West Hurricane
7264.0 LSB Gulf Coast (health and welfare)
7265.0 LSB Salvation Army Team Emergency Radio (SATERN) (altn)
7273.0 LSB Texas ARES (altn)
7280.0 LSB NTS Region 5
7280.0 LSB Louisiana Emergency (altn)
7283.0 LSB Gulf Coast (outgoing only)
7285.0 LSB West Gulf ARES Emergency (day)
7285.0 LSB Louisiana ARES Emergency (day)
7285.0 LSB Mississippi ARES Emergency
7285.0 LSB Texas ARES Emergency (day)
7290.0 LSB Central Gulf Coast Hurricane
7290.0 LSB Gulf Coast Weather
7290.0 LSB Texas ARES (health and welfare)
7290.0 LSB Louisiana ARES (health and welfare) (day)
7290.0 LSB Texas ARES (health and welfare)
7290.0 LSB Mississippi ARES (health and welfare)

14265.0 USB Salvation Army Team Emergency Radio (SATERN)
14300.0 USB Intercontinental Traffic
14300.0 USB Maritime Mobile Service
14303.0 USB International Assistance and Traffic
14313.0 USB Intercontinental Traffic (altn)
14313.0 USB Maritime Mobile Service (altn)
14316.0 USB Health and Welfare
14320.0 USB Health and Welfare
14325.0 USB Hurricane Watch (Amateur-to-National Hurricane Center)

14340.0 USB Louisiana (1900)

+ RESOURCE LINKS

CAUTION: The links presented below are listed as possible resources
for ARES deployment teams. THEY HAVE NOT BEEN VETTED BY ARRL. USE
AT YOUR OWN RISK.
-K1CE

Health and Welfare Inquiries can be submitted to:

Salvation Army Team Emergency Radio Network (SATERN)
<http://www.satern.org/>; for Health and Welfare inquiries after
hurricanes and other disasters <http://qso.com/satern/emailfrm.htm>.

American Red Cross (H/W Inquiries): 866-GET-INFO (866-438-4636)
American Red Cross donations and volunteering: 800-HELP-NOW
(800-435-7669)
<http://www.redcross.org>

Federal Emergency Management Agency (FEMA)
(Individual Disaster Assistance): 800-621-FEMA (800-621-3362)
<http://www.fema.gov/>

Hurricane Katrina Survivor Lists and Information:

National Next of Kin Registration <http://www.nokr.org/>

Hurricane Katrina Survivors Online Forum and Survivor List
<http://www.hurricanekatrinasurvivors.com/main/>

CNN Hurricane Katrina Survivor List <http://www.cnn.com/safe>

Globe Coast News Katrina Survivor List
<http://kenburtonne.web116.discountasp.net/Katrina/Status.aspx>

New Orleans <http://www.neworleans.craigslist.org>

WDSU-TV6 New Orleans TV Station <http://www.wdsu.com/news>

New Orleans Newspaper <http://www.nola.com>

Hurricane Housing Information for Victims
<http://www.hurricanehousing.org>

Links to Emergency Management and Related Sites:

<http://www.nhc.noaa.gov/aboutlinkem.html>

See also:

Florida Division of Emergency Management
<http://www.floridadisaster.org/>

Alabama Emergency Management <http://www.disaster.ema.alabama.gov/>

Alabama Homeland Security <http://www.homelandsecurity.alabama.gov/>

Louisiana State Emergency Information
<http://www.lsp.org/emergency.html>

Louisiana Homeland Security <http://www.ohsep.louisiana.gov/>

Louisiana Governor's Office <http://www.gov.state.la.us/>

City of New Orleans <http://www.cityofno.com/portal.aspx>

Mississippi Emergency Management <http://www.msema.org/>

Mississippi Emergency Management Emergency Line: 1-800-222-MEMA(6362)

Mississippi Homeland Security <http://www.homelandsecurity.ms.gov/>

Disaster Relief Organizations:

American Red Cross <http://www.redcross.org>

Salvation Army <http://www.salvationarmyusa.org/>

United Way <http://national.unitedway.org/>

Catholic Charities <http://www.catholiccharitiesusa.org/>

Operation Blessing (800) 436-6348 <http://www.ob.org/>

United Jewish Communities <http://www.ujc.org>

United Methodists Relief Committee
<http://gbgm-umc.org/umcor/emergency/hurricanes/2005/>

Episcopal Relief <http://www.er-d.org/>

America's Second Harvest (800) 344-8070
<http://www.secondharvest.org/>

+ FINAL NOTE AND PREDICTION

This special edition is released on the anniversary of the September 11 bombings that changed all of our lives. As with the humanitarian ARES response, then, it has been a privilege to monitor the incredible ARES response to the current catastrophe. Bravo to you, the ARES field activists.

It was also inspiring to see Newington and other staff give up their holiday and other time to support the ARES effort. Bravo to them -- they are members of the HQ staff for all of the right reasons.

And now, the prediction: When the curtain is finally drawn on this calamity, you will see Amateur Radio and ARES written -- or re-written -- into a host of more governmental and non-governmental organization plans for the future. Guaranteed. Mark my words on that one. Get your pens ready. - K1CE

==========
The ARES E-Letter is published on the third Wednesday of each month by the American Radio Relay League--The National Association For

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President.

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ARES E-Letter by going to the Member Data Page at:
http://www.arrl.org/members-only/memdata.html?modify=1

Note that you must be logged in to the site to access this page.
Scroll down to the section "Which of the following would you like
to receive automatically via email from ARRL?" Check the box for
"ARES E-Letter (monthly public service and emergency communications
news)" and you're all set.

Past issues of The ARES E-Letter are available at
http://www.arrl.org/ares-el/. Issues are posted to this page after
publication.
==========

423. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 21:31:53 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126474313.128208.216810@g43g2000cwa.googlegroups.com>
Source record: 70821
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
> This is to 'an old friend' in particular and his dingaling buddies.
>
> Perhaps this E-Mail I just received from the Alabama Section Emergency
> Coordinator will "HELP" 'an old friend' to understand. Anyone want to bet?
>
> Please notice the comments about using tactical and formal message handling.
> FYI tactical would be to dispense with the formal headings. Just use the
> basic address/phone number. Then the operator that received the message
> makes a phone call to deliver anywhere in the world that allowed 3rd Party
> traffic.
>
> Formal should be self explainatory, but knowing the abilities of Mr. 'an
> old friend' I'll translate....It is using standard ARRL Formatted messages
> as in;
>
> Number 139 W (Welfare) W4NTI CHECK 12 ANNISTON AL SEPT 10
> TO MR JAMES KIRK
> STARSHIP ENTERPRISE
> ANYWHERE IN THE UNIVERSE ZIP CODE
> PHONE NR
> BT
> ALL IS WELL HERE MR. SPOCK X HOPE
> TO SEE YOU SOON BT JAMES T. KIRK
>
> BT
>
> NNNN (MEANS NOTHING FURTHER) (USUALLY SENT IN CW OR DIGITAL MODES AND NOT
> USED IN PHONE)
>
> You do notice the word 'sites' right? That is plural for many locations.
>
> I especially want your response to the paragraph concerning the highly
> vaunted 800 mhz system. That FAILED immediatly.

Yes they failed never said otherwise

> Then please comment about
> the use of Hams to DISPATCH Police and Fire.

I see no such reference, I see a reference that mean that but it is not
clear what type of car or HT radio. Had this been Sanagamon
County(springfield IL area) or here (houghton County) the police and

fire systems can operate autonomouslys of the 800 MHZ system not as
well

> Not to mention the comment of
> how these same hams helped FIX these sites to attempt getting the Police and
> other Emergency agencies back on line.

Nice to see them lend a hand but of course this isn't passing a
message, and here at least many of hams able to fix such system are
also the poeple that installed them in the first place
>
> Please also note that these Ham teams VOLUNTARILY PUT THEMSELVES into the
> middle of one of worst, if not THEY worst ecological disaster in this
> countries history.

Never said otherwise

> Providing their own equipment, their own supplies, their
> own gas, etc. Note how much that is appreciated and does not ADD to the
> problem.

never said otherwise
>
> No bragging, no looking for headlines, in fact NO NAMES AT ALL. So tell me
> 'an old friend' where is all the bragging????????

you were the one Bragging personaly. I know you can't seem to seperate
yourself from the totality of the ARS.

>
> I doubt this will do a bit of good with you and your 1/3 of the newsgroup
> that support you. But these are the facts. Believe it if you want.

I see it and I see the ARRL is being more carefull than I have seen
them in the past not to over state the role of the ARS
>
> OR.....just remove the egg off you face and drop the subject.

of course anyone that dares disgree you in the slightest degree has
"egg" on their face
>
> Dan/W4NTI
>
> > Good morning Folks,
> >
> > I can't begin to tell you how awesome your response to Hurricane Katrina
> > and the aftermath has been. The Tactical and Formal traffic handling as
> > well as the overall professionalism, has truly been impressive.
> >
> > Those of you that have packed up and gone to the needed sites to operate
> > in dismal conditions deserve all of our gratitude. You have made our state
> > proud, and me too.
> > For those who went but were turned around because of mis-communication,

> > please accept my sincere apologies. With a half million people homeless,
> > and hundreds of thousands without power, water and basic services, all of
> > us in Emergency Services were simply overwhelmed. We're trying to get it
> > right, and using the experience to make sure of a good plan should this
> > magnatude of event ever happen again.
> >
> > This is what we have learned:
> >
> > The 800mhz and other trunked systems commonly used by local and state
> > agencies, were the first to go in the hard hit areas. In many cases, we
> > found Police and Fire units were dispatching from a car or HT. Even after
> > two weeks, we still have hams handling All of the EOC and Public Service
> > communications in a number of counties and Parishes on the coast. This is
> > really hot gristly work. Many of the hams were able to repair the
> > commercial antenna systems and bring some public services back online.
> > Cell phones were out initally, but began to come up after a week, but many
> > areas are still overloaded or spotty.
> > The most valuable asset by far has been the totally self contained ham or
> > team who went in with radios, generators, antennas, food, water, and
> > sleeping bags. This is what everyone onsite began to ask for, and what we
> > are running short of. Keep this in mind for a club or group project in the
> > future.
> >
> > ARRL has set up a Clearing House for needed hams at
> > http://www.arrl.org/FandES/field/agencies/.
> > Also Greg W4OZK has beed working as Amateur Radio liaison at the American
> > Red Cross Disaster Operation Center that has been set up in Montgomery.
> > You can contact him at DR871-06RTT-RCO3@usa.redcross.org for placement.
> >
> > We are still looking at at least 60 days of operations that will require
> > our assistance. Anything that you or your clubs can do will mean a great
> > deal to those folks who still can't communicate with the needed agencies.
> >
> > 73's and God Bless, Jay Isbell KA4KUN ARRL Alabama Section Emergency
> > Coordinator
> > ARES - ARES Mutual Assistance Team - ARES Rapid Response Team - "It's Not
> > Just A Hobby Anymore"
> >
> >
>
>
>
> ---

424. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 21:47:01 UTC
From: Cmdr Buzz Corey <me@that.moc>
Message-ID: <zaOdnTg7KpJxC7neRVn-jw@gbronline.com>
Source record: 70814
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
>>
> Just where did you get the notion that Montgomery only needed to talk across
> town?

The voices in his head told him so.

425. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 21:48:13 UTC
From: Cmdr Buzz Corey <me@that.moc>
Message-ID: <zaOdnTs7KpKuCrneRVn-jw@gbronline.com>
Source record: 70815
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dan/W4NTI wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message

>>from your statement obviously
>>
> I never said any such thing. I was talking about comms in/out of shelters.
> You think ALL the shelters are in one town?

First you need to explain to an_old_idiot what a shelter is.

426. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 22:21:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg2aljcmc1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70822

"John N9JG" wrote
> You seem to be exceedingly knowledgeable about loop antennas.
==========
It's just the way I write it.
==========
> I have limited
> space available for a 160 meters antenna. What advice do you have
about a
> loop antenna for 160 meters constructed out of 3/4" copper pipe with
an
> octagon shape, and a perimeter of 100 feet. The plane of the loop
would be
> vertical with the bottom of the loop about one foot high. The loop
would be
> fed at the bottom, and the remotely tuned series capacitor would be
centered
> in the top side of the loop. Does this project seem doable and does
it make
> sense?
> John, N9JG
==========

It makes good sense. Depending on your resources there will be mechanical problems to solve. The weight of the large value, motor-driven tuning capacitor, plus that of copper pipe will need supporting. Plastic guy ropes may be needed. And ideally the whole thing should be manually rotateable through 90 degrees.

Electrical comment : Do NOT cut the copper pipe to feed it at the bottom of the loop. The balanced feedpoint input impedance will be extremely small and impossible to match efficiently.

The best method of feeding is via a small loop of wire inside the main loop in the same plane. The small loop is approx 1/5th of the diameter of the main loop and is insulated from the main loop. The small coupling loop is just a self-supporting wire between the inner and outer conductors of a 50-ohm coaxial feedline and can be located at the bottom of the main loop.

Compared with main loop diameter, the 1-foot height of loop above ground is very low. Loss in the ground will be rather high. Try to obtain a height of 6 feet for a not very great improvement.

With a perimeter of 100 feet, on 160 meters performance will be about 1 S-unit worse than a 1/2-wave dipole. On 80 meters performance will be about the same as a full-size 1/2-wave dipole at the same height.

The perimeter is too long to work on 40m.

Further performance details can be obtained from program MAGLOOP4 from
website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

427. Replacement Antenna $10

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-11 23:06:20 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <ML2Ve.8432$ib1.863@tornado.ohiordc.rr.com>
Source record: 70823
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.tech

Here is the link for a site offering replacement antennae for about $10. For the price, you may just decide this will make your job a lot simpler.

http://www.weisd.com/store2/12301.html

Wayne-
(KC8UIO)

"Frank" <NOSPAM@NOSPAM.com> wrote in message
news:v-GdnY0p_OgYU73eRVn-1w@rogers.com...
> Hi there
>
> What is the best type of "wire" for making a homemade car antenna to pick
> up FM radio. Is it copper? Aluminium? What thickness or size. Lenght?
>
> Thanks!
>

428. Typical Leakage Calculation

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 00:11:16 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <EI3Ve.8446$ib1.6720@tornado.ohiordc.rr.com>
Source record: 70824

The RF power at 2W is about +33 dBm. The cable's connector ends are the most likely place for RF leakage to occur, as it is with the termination's connector. Suppose the leakage is 80dB. That would make the radiated power:

P = +33dBm - 80dB = -47dBm
(This is right at the connector site.)

The field intensity goes as the reciprocal of the radius squared. Since -47 dBm is about 20 nW and power in Watts implies MKS units,

P (at 100 feet) = 20 nW divided by (30)squared,

since 100 feet equals approximately 30 meters.

This is about 20 pW or -77dBm.

A good receiver can detect down to -120 dBm (I think).

The field strength of -77 dBm is well within the sensitivity of a good receiver of -120 dBm.

The short answer is that to detect signals 100 feet away is a likely event with a typical termination load.

"CD" <mr.whatever@gmail.com> wrote in message
news:1126098596.599662.122930@o13g2000cwo.googlegroups.com...
> Hi all,
>
> I'm curious about dummy loads. I read that ideally dummy loads convert
> RF energy into heat, but I'm sure in the real world, there will still
> be a small amount RF energy transmitted.
>
> My friend tried using a dummy load on a 300W transmitter. He was only
> running it for a few mins at the VHF range, but he was picking up a
> signal 100 ft away. Is that typical?
>
> What's your experience on dummy loads? Were you able to pick up a
> signal, as well, with this type of distance?
>
> I don't know much about dummy loads, but I think that 100ft is just a
> tad bit too far, no?
>

429. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 00:52:28 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dg2jg9$6nc$1@mailhub227.itcs.purdue.edu>
Source record: 70825

Thanks a lot for your advice. I would like to use the loop on 80 meters also, but I thought that the self-resonant frequency of a 100 feet perimeter loop would be too low for the loop to be resonated on 80 meters with a series capacitor.

Also, from reading some material in the ARRL 20th edition Antenna Book, I noticed that Ted Hart, W5QJR, used a gamma-matching arrangement to feed his loop. If a small interior loop is used to feed the main loop, are capacitors needed to couple the coax feed line to the small loop? Hopefully, these capacitors would not need to be changed after the initial setup procedures have taken place.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dg2aljcmc1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
[additional text]
>The best method of feeding is via a small loop of wire inside the main
>loop in the same plane. The small loop is approx 1/5th of the diameter
>of the main loop and is insulated from the main loop. The small
>coupling loop is just a self-supporting wire between the inner and
>outer conductors of a 50-ohm coaxial feedline and can be located at
>the bottom of the main loop.
[additional text]
> With a perimeter of 100 feet, on 160 meters performance will be about
> 1 S-unit worse than a 1/2-wave dipole. On 80 meters performance will
> be about the same as a full-size 1/2-wave dipole at the same height.
> The perimeter is too long to work on 40m.
>

430. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 01:57:46 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4324E0BD.A033E1A@earthlink.net>
Source record: 70726
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"LenAnderson@ieee.org" wrote:
>
> The disaster of hurricane Katrina is of unparalleled proportions
> and ALL humane-thinking citizens can do their part, however big,
> however small.

And then, there are the morons and bigots:
<http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG=Search+News>

--
?

Michael A. Terrell
Central Florida

431. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 02:48:14 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126493294.756384.272070@f14g2000cwb.googlegroups.com>
Source record: 70727
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael A. Terrell wrote:
> "LenAnderson@ieee.org" wrote:
> >
> > The disaster of hurricane Katrina is of unparalleled proportions
> > and ALL humane-thinking citizens can do their part, however big,
> > however small.
>
>
> And then, there are the morons and bigots:
> <http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG=Search+News>

I doubt they are the first to do so, I am certain they are will not be
the last.

Hopefully such actions will deliever a silver lining of forcing the
hand of the Govt to reign in the overbearing homowner assocations, as
hopefully, will the death and estruction in NO lead to finaly dealing
with the cities problems rather than just pushing them off till the
next admistration (at all levels)
>
>
> --
> ?
>
> Michael A. Terrell
> Central Florida

432. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 05:32:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg33tf$p7b$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70728

John,

The highest operating frequency of a magloop occurs when the tuning capacitor is set to minimum or zero and the circumference of the loop is approximately 1/2-wavelength. That's rather obvious.

100 feet circumference = 30 metres. So greatest working frequency is 150 / 30 = 5 MHz.

A small coupling loop is far and away the best method of feeding a magloop. Nothing could be mechanically more simple. There are no additional components and the loop is isolated from the main loop. Furthermore its diameter for a good impedance match to 50 ohms tends to be independent of operating frequency. The wire diameter of the coupling loop need be no larger than that of the inner conductor of the coaxial feedline to which it is connected.

I've never heard of Ted Hart. But, of course, a gamma match will work. However the direct connection to the main loop unbalances it and encourages radiation from the feedline. In comparison with a small coupling loop it is also mechanically complicated.

Reg, G4FGQ

433. best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 06:07:39 UTC
From: eternalsquire@comcast.net
Message-ID: <1126505259.234971.15970@f14g2000cwb.googlegroups.com>
Source record: 70729

Hi,

I'd like some advice for determining the best antenna to put up in my situation.

I am getting set to move to a trailer park in northeast arizona, about 50 miles west of Gallup, NM. Locals have no objection to antennas so long as people don't have to run into them via normal passage ways. The trailer is 12 feet high by 15 feet wide by 50 feet long, facing N-S. Nearest certain ground is electrical panel. The water pipe is metal but could be interrupted throughout system by PVC. There may also be significant noise from AC systems in park.

Good news is that my wife is giving me an entire walk-in closet for my station, and that I can lay aluminum foil against all surfaces to create a Faraday cage.

I have approx 25 to 30 feet between my trailer and neighbors, and a 35 foot altitude streetlamp 6 feet away curb. Soil conductivity is red clay, extremely poor. Significant rainfall (monsoons) summer to fall. Winds gusting to 50 or 60 mph during winter. Soil frosts between October to March.

I would like to work CW DX on 40, 30, 20, and 17 meters. 80 and 160 would
be a bonus. Conventional options such as tower or surplus telephone pole are out of the question due to cost and lack of available area. Radials must be buried as children are playing nearby.

Probable options:

1) Load up the streetlamp with an antenna matcher, work against 180 degrees of buried radials out to 1/8 lambda.

2) Solder a series of tin/steel cans (cantenna) using pocket torch and copper tape to 1/4 lambda with added capacitance hat(s), brace the cans against the ground and the trailer, work against 270 to 360 degrees of buried radials out to 3/8 lambda.

3) Create a mast from 40 feet of metal pipe and 15 feet of wood rod, brace against trailer burying pipe end 10 feet, mount an inverted vee trap dipole in N-S direction for E-W DX.

4) Pair of masts on either side of the trailer, mount a delta loop from each mast, feed one loop and use the other as a reflector.

5) Pair of cantennas on each side of the trailer, operating as out of phase pair of 1/4 lambda verticals.

Which would be best? And where do I place the lightning arrestor(s)?

Thanks,

The Eternal Squire

434. We may set something up! I saw you by accident and I'm interested in you!!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 09:02:31 UTC
From: Allen <sythugh232@yahoo.com>
Message-ID: <1126515298.630189.25210@o13g2000cwo.googlegroups.com>
Source record: 70730

We may set something up! I saw you by accident and I'm interested in
you!!!!
http://h-otlonely-girls.tripod.com

435. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 12:59:17 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dg3u33$rp7$1@mailhub227.itcs.purdue.edu>
Source record: 70732

Thanks again, Reg. You can be sure I am printing out your comments and
storing them in my loop project folder. I will also be perusing your web
site http://www.btinternet.com/~g4fgq.regp/
I will need some info on size and placement of the coupling loop.

Regarding Ted Hart, W5QJR, there is some information about him at
http://www.nab.org/conventions/radioshow/2003/participantbio.asp?id=10459
A Google search on Ted-Hart Loop-Antenna finds about 100 hits.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dg33tf$p7b$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> John,
>
> The highest operating frequency of a magloop occurs when the tuning
> capacitor is set to minimum or zero and the circumference of the loop
> is approximately 1/2-wavelength. That's rather obvious.
>
> 100 feet circumference = 30 metres. So greatest working frequency is
> 150 / 30 = 5 MHz.
>
> A small coupling loop is far and away the best method of feeding a
> magloop. Nothing could be mechanically more simple. There are no
> additional components and the loop is isolated from the main loop.
> Furthermore its diameter for a good impedance match to 50 ohms tends
> to be independent of operating frequency. The wire diameter of the
> coupling loop need be no larger than that of the inner conductor of
> the coaxial feedline to which it is connected.
>
> I've never heard of Ted Hart. But, of course, a gamma match will
> work. However the direct connection to the main loop unbalances it and
> encourages radiation from the feedline. In comparison with a small
> coupling loop it is also mechanically complicated.
> ----
> Reg, G4FGQ
>
>

436. Attention Lloyd!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 13:40:29 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <hzfVe.8704$ib1.8214@tornado.ohiordc.rr.com>
Source record: 70733

Here's your chance, man...don't blow it.

"Allen" <sythugh232@yahoo.com> wrote in message
news:1126515298.630189.25210@o13g2000cwo.googlegroups.com...
> We may set something up! I saw you by accident and I'm interested in
> you!!!!
> http://h-otlonely-girls.tripod.com
>

437. National Antenna Tuner info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 14:44:16 UTC
From: Todd <gmbuypower1@hotmail.com>
Message-ID: <1126536256.347485.157910@g47g2000cwa.googlegroups.com>
Source record: 70734

I have one , Pre WW11, no #s on it. Any info appreciated.

Thanks, Todd

438. Measuring beam radiation pattern

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 14:57:44 UTC
From: Bob Freeth <bob.freeth@g4hfq.co.uk>
Message-ID: <QNGdndJ-x7MhJrjeRVnygg@pipex.net>
Source record: 70738

If you have constructed a digital wattmeter based on one of the Analog Devices AD8307 logarithmic amplifiers you can probably easily interface it to a PC. The design by OZ2CPU on http://www.webx.dk is capable of this and the software in the PIC sends a continuous stream of power readings in tenths of a dB to the serial port.

PolarPlot V3.1 (http://www.g4hfq.co.uk/plphelp/plphelp.htm) can now use these power readings to plot the radiation pattern of beam antennas.

The advantage over the previous method using a sound card is that much better resolution can be achieved at levels lower than -35dB. In addition it is easier to set up levels and there is no more battling with the Windows mixer application or the RF gain of your receiver to get the audio level correct.

V3.1 of PolarPlot still supports the sound card as well as the OZ2CPU wattmeter. A purpose-built wattmeter is being designed and programmed by M0DFT.

73 de Bob, G4HFQ

439. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 15:27:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <436bi1hj1vsmcbdvbvs13n3q5f3m9ejhbj@4ax.com>
Source record: 70735

On 11 Sep 2005 23:07:39 -0700, eternalsquire@comcast.net wrote:

>I would like to work CW DX on 40, 30, 20, and 17 meters.

Hi OM,

Not 10, 12, 15, nor 60?

>80 and 160 would be a bonus.

They would be a miracle - sometimes miracles are indistinguishable
from luck or accepting comes-what-may.

>Probable options:
>
>1) Load up the streetlamp with an antenna matcher, work against 180
>degrees of buried radials out to 1/8 lambda.

How would the park owner feel about that? 1/8 lambda of what? 80M?

>2) Solder a series of tin/steel cans (cantenna) using pocket torch and
>copper tape to 1/4 lambda with added capacitance hat(s), brace the cans
>against the ground and the trailer, work against 270 to 360 degrees of
>buried radials out to 3/8 lambda.

Sure, it's been done, but more as a gag because so many simpler
options are available. It will need just as much guying as the next,
more conventional vertical anything. So why not just go out and get
that some nested tubular sections? Army surplus field antennas 40
feet high have been selling for $80 - $100 for years. And they come
complete with even the sledge hammer to sink the guy pegs.

>3) Create a mast from 40 feet of metal pipe and 15 feet of wood rod,
>brace against trailer burying pipe end 10 feet, mount an inverted vee
>trap dipole in N-S direction for E-W DX.

Ah! 40 feet of metal pipe. Glad to see that the stack of cans has
an alternative. Well, this is a start for testing various designs
against.

>4) Pair of masts on either side of the trailer, mount a delta loop
>from each mast, feed one loop and use the other as a reflector.

An elaboration of the 40 feet of metal pipe.

>5) Pair of cantennas on each side of the trailer, operating as out of
>phase pair of 1/4 lambda verticals.

Dump the cans and stick with the 40 feet of metal pipe. But it seems we got here by wanting an antenna that worked most the bands. The "phase pair" is not that and it will probably have more effort involved than perceived return. Certainly that is something that never stopped anyone who starts this kind of project and it will offer hours of diversion.

>Which would be best?

The one with best DX. You could as easily ask which would be:
the easiest, efficient, practical, useful;
or to go with the antonyms:
the absurdest, illogical, impractical, tortured....

It all depends on wavelength and the terms flip from one category to the next, appropriately.

Overall, the longest dipole you support as high as possible, with a twin line transmission line to a tuner. Add a ground field so you can tie the transmission line together to drive it against the ground for the lowest band.

>And where do I place the lightning arrestor(s)?

As close to your ground field as possible (with it, in turn, tied to the ground of your panel per code) or you will become the Eternal Flame.

73's
Richard Clark, KB7QHC

440. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 15:38:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <in7bi1lr5aq65pi8l8hklmhluibo4frf6a@4ax.com>
Source record: 70736

On Sat, 10 Sep 2005 19:02:39 +0100, Dave Piggin
<d.piggin@zetnet.co.uk> wrote:

>Once you've tin worm it's hard to stop the oxydization.

Hi Dave,

Is tin worm like White Pine Weevils or Bronze Birch Borers?

When a neighbor saw me laying out a ground field, he asked what I was
doing. I answered that I was doing root propagation to grow an
aluminum tree.

73's
Richard Clark, KB7QHC

441. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 17:10:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg4cqh$e4l$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70737

John,

In principle, the coupling loop can be located in the same plane and anywhere within the main loop. So it is most convenient to locate it at the bottom of the main loop within an inch or two of the main loop.

But make no direct connection between the two loops or between the coax and the main loop. There has to be some sort of support for the coax and coupling loop. So you can make use of the insulating jacket of the coax feedline and sticky insulating tape. If any other supporting insulating materials are needed any plastics will do.

You can, of course, make a beautiful engineering job out of it which you can be proud of. But, radio-wise, the antenna will not work the slightest bit better. ;o)

A comment about a motor-driven variable capacitor at the top of the main loop. To allow the main loop to maintain self-balance about ground, insert a multi-wire choke in the control wires and any other wires feeding the motor. Or whatever form the motor may take.

Remember, the main loop should be allowed to take up its own natural balance about ground to reduce "radiation from the feedline."

In the case of magloops, radiation from the feedline is a matter of loss of radiation from the antenna. Waste not, want not!

Reg, G4FGQ

442. SGC model SG-230 SmartTuner - Automatic Antenna Tuner on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 17:34:39 UTC
From: wmtell@gmail.com
Message-ID: <1126546479.518719.264230@g14g2000cwa.googlegroups.com>
Source record: 70739

I have listed a NEW SGC SG-230 SmartTuner on ebay. As you most likely know, this is the ultimate automatic antenna tuner.

This is a commerical grade, state of the art antenna tuner for Ham, commercial, marine, aviation, military, intelligence and shortwave use.

For more information or to see the pictures click on this link:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=6802005559

If the linik does not work for you, just go to http://ebay.com and do a search for: "SGC model SG-230"

I have the ability to ship this unit worldwide.

Thanks,

Bill

443. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 18:02:54 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dg4fsc$6j9$1@mailhub227.itcs.purdue.edu>
Source record: 70740

This information will same me a lot of effort and mental anguish as I
proceed with my loop project. Thank you for your help.
-- John, N9JG

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dg4cqh$e4l$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> John,
>
> In principle, the coupling loop can be located in the same plane and
> anywhere within the main loop. So it is most convenient to locate it
> at the bottom of the main loop within an inch or two of the main loop.
>
> But make no direct connection between the two loops or between the
> coax and the main loop. There has to be some sort of support for the
> coax and coupling loop. So you can make use of the insulating jacket
> of the coax feedline and sticky insulating tape. If any other
> supporting insulating materials are needed any plastics will do.
>
> You can, of course, make a beautiful engineering job out of it which
> you can be proud of. But, radio-wise, the antenna will not work the
> slightest bit better. ;o)
>
> A comment about a motor-driven variable capacitor at the top of the
> main loop. To allow the main loop to maintain self-balance about
> ground, insert a multi-wire choke in the control wires and any other
> wires feeding the motor. Or whatever form the motor may take.
>
> Remember, the main loop should be allowed to take up its own natural
> balance about ground to reduce "radiation from the feedline."
>
> In the case of magloops, radiation from the feedline is a matter of
> loss of radiation from the antenna. Waste not, want not!
> ----
> Reg, G4FGQ
>
>

444. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 18:23:55 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <Er-dnQwu5NI8WrjeRVn-vQ@comcast.com>
Source record: 70741

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:1126359392_6087@spool6-east.superfeed.net...
>
> Load Drain Current Drain Efficiency Load Power
> 25 ohms 12.2 amps 82.6% 129 watts
> 50 ohms 20.1 amps 77.7% 200 watts
> 100 ohms 33.1 amps 62.3% 264 watts
>
> Can these be thought of as load-pulling data points? Maximum load
> power appears to occur when the load is greater than 100 ohms.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Have you considered the possibility that he might have the data for 25 Ohms and 100 Ohms interchanged? The amplifier is voltage limited at, it appears, 12.8 V. I would believe 25 Ohms, 33.1A, and 264W.

Tam/WB2TT

445. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 19:10:08 UTC
From: Carl / W6VDC <carl.hixon@cox.net>
Message-ID: <bnkVe.8821$mH.8469@fed1read07>
Source record: 70742
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

> And then, there are the morons and bigots:
> <http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG=Search+News>

I looked at the link and read a couple of the articles. I didn't see
anything that warranted labelling them bigots. I don't think that the
HOA took the proper position, but that doesn't make them bigots.

446. Full Wave Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 19:45:45 UTC
From: Steven Fritts <w4sef@bellsouth.net>
Message-ID: <jalbi19nerau89mih6i17311b4svb5n963@4ax.com>
Source record: 70743

Hi all,

I am thinking of building a full wave loop for 17 meter ham band. What I plan to do is to build a cross shaped form...then run wire approx 12.7 ft on each side....then hang the antenna vertically from a tree or mount it on a support 30-40 ft up with the V point of the antenna straight up with the other "V" point straight down. In other words the antenna will look like a diamond hanging vertically in the air. If I feed the antenna at the bottom V with ladder line, one lead on each leg, how will this antenna perform? The antenna wire wil be seperated at the bottom point-not tied together. Will it have any gain? I am sure there will be directivity broadside to the antenna.Thanks for any help.

Steve W4SEF

447. Re: SGC model SG-230 SmartTuner - Automatic Antenna Tuner on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 20:25:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126556863_26291@spool6-east.superfeed.net>
Source record: 70744

wmtell@gmail.com wrote:
> I have listed a NEW SGC SG-230 SmartTuner on ebay. As you most likely
> know, this is the ultimate automatic antenna tuner.

Ultimate? The SG-230 has known software problems that the
SGC people refuse to correct. I have one of them.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

448. Re: Efficiency of Power Amplifiers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 20:26:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126556955_26293@spool6-east.superfeed.net>
Source record: 70745

Tam/WB2TT wrote:
> Have you considered the possibility that he might have the data for 25 Ohms
> and 100 Ohms interchanged?

Nope, I accepted his data at face value and am looking
for an explanation.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

449. Re: Full Wave Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 20:29:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126557099_26295@spool6-east.superfeed.net>
Source record: 70746

Steven Fritts wrote:
> Will it have any gain?

Not over a dipole at the same maximum height.
Lots of gain over a 1/4WL vertical. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

450. Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 20:39:23 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <rk5hv2-2i4.ln1@p400bob.personal.cox.net>
Source record: 70747

Hi all.

Throwing together a 20m single quad loop (triangular) antenna. In the past I have fed these with a 75r Q section. Nothing strange here.. I use to coil up most of it in a 5" coil to help reduce the line radiation problem - if any... No tuner in use..

This time however I am going to use two pieces of 50 ohm coax in parallel giving a 100r balanced Q section feeder. This more closely matches the loop Z. The shields are joined together at each end of the section and the coax centre conductors become the two antenna connection points.

Question;

Should I be worried about inbalance in the 50 ohm cable from the radio to the Q section. ie does the Q section reduce any of that problem? If that isnt the case I can make up the usual coil of coax before it meets the Q section.. or can I coil up the Q section instead.

I also wonder about Q section shield grounding as I hadnt intended grounding either end. Will this be an issue?

Cheers Bob W5/VK2YQA

451. Re: SGC model SG-230 SmartTuner - Automatic Antenna Tuner on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 21:32:45 UTC
From: Anchor <anchorelectronics@sympatico.ca>
Message-ID: <pan.2005.09.12.21.32.44.558485@sympatico.ca>
Source record: 70748

On Mon, 12 Sep 2005 15:25:04 -0500, Cecil Moore wrote:

> wmtell@gmail.com wrote:
>> I have listed a NEW SGC SG-230 SmartTuner on ebay. As you most likely
>> know, this is the ultimate automatic antenna tuner.
>
> Ultimate? The SG-230 has known software problems that the
> SGC people refuse to correct. I have one of them.

Mine packed up. Four years of pactor email did it.

Apply RF power and the relays chatter never settling down to a tuned configuration. It does this regardless of whether I am trying to load up an antenna or a dummy load.

We have been playing with PIC's lately. I wonder if it is worth while to use a PIC and the relay switched inductors and capacitors to make a make a home brewed automatic tuner. PIC frequency counter software is all over the net. Something like a 16F870 has five 10-bit A2D's. That's about all one would need to make an automatic tuner from a broken SG-230.

452. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 22:07:18 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <5uubi157qdbqjc5dhgjc5u1aa49mg7mnqs@4ax.com>
Source record: 70749

On Mon, 12 Sep 2005 15:39:23 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>Hi all.
>
>Throwing together a 20m single quad loop (triangular) antenna. In the
>past I have fed these with a 75r Q section. Nothing strange here.. I use
>to coil up most of it in a 5" coil to help reduce the line radiation
>problem - if any... No tuner in use..
>
>This time however I am going to use two pieces of 50 ohm coax in
>parallel giving a 100r balanced Q section feeder. This more closely
>matches the loop Z. The shields are joined together at each end of the
>section and the coax centre conductors become the two antenna connection
>points.

I have a question, Why?

The loop Z is going to be in the neighborhood of 120 ohm. A 75 ohm Q
section is a better deal than 100 ohm.

>
>Question;
>
>Should I be worried about inbalance in the 50 ohm cable from the radio
>to the Q section. ie does the Q section reduce any of that problem? If
>that isnt the case I can make up the usual coil of coax before it meets
>the Q section.. or can I coil up the Q section instead.
>
>I also wonder about Q section shield grounding as I hadnt intended
>grounding either end. Will this be an issue?
>
>Cheers Bob W5/VK2YQA

453. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 22:58:33 UTC
From: Roger Leone <raleoneTAKEOUT@sbcglobal.net>
Message-ID: <tKnVe.3877$6e1.2237@newssvr14.news.prodigy.com>
Source record: 70750

> This time however I am going to use two pieces of 50 ohm coax in
> parallel giving a 100r balanced Q section feeder. This more closely
> matches the loop Z. The shields are joined together at each end of the
> section and the coax centre conductors become the two antenna connection
> points.

Bob:

My math says that 2 sections of 50 ohm coax in parallel makes a 25 ohm feeder, not a 100 ohm feeder. Also, if your intention is to use the 2 coax center conductors to connect to the loop feedpoint, where will the differential mode currents which are necessary at the feedpoint come from? And if you don't connect the coax shields to something at the feedpoint, where does the current flowing in the shield go?

Your idea sounds something like the DK7ZB match for yagi antennas: http://www.qsl.net/dk7zb/dk7zb-match.htm It allows matching the approximately 12.5 ohm feedpoint of a yagi to be matched to a 50 ohm feedline. Note that the coax shields at both ends of the Q section are connected to something.

Roger K6XQ

454. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 23:38:34 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <q4ghv2-tr4.ln1@p400bob.personal.cox.net>
Source record: 70752

The modelled Z is around 140 ohms. The "top" element of the loop is about 20% longer than the other two. It is starting to approach a folded dipole.

Bob

Wes Stewart wrote:
> I have a question, Why?
>
> The loop Z is going to be in the neighborhood of 120 ohm. A 75 ohm Q
> section is a better deal than 100 ohm.

455. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-12 23:47:35 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <olghv2-js4.ln1@p400bob.personal.cox.net>
Source record: 70751

Hi Roger

Okay bad choice of words. Try series... With the centre conductor of
both coaxes joined at each end you do indeed get 25 ohms.. "Parallel"
was more a case of describing the physical rather than electrical layout.

When you connect just the shields you effectively have a 100 ohm
balanced but shielded feeder with the two centre conductors being the
"real" transmission line. Also apparently good for placing inside a
metal pipe without it affecting the transmission system - but I am not
doing that.

And where the 50 ohm coax from the radio joins the bottom of the Q
section its shield goes to one wire and the centre conductor to the other.

Okay?

Roger Leone wrote:

>
> My math says that 2 sections of 50 ohm coax in parallel makes a 25 ohm
> feeder, not a 100 ohm feeder. Also, if your intention is to use the 2 coax
> center conductors to connect to the loop feedpoint, where will the
> differential mode currents which are necessary at the feedpoint come from?
> And if you don't connect the coax shields to something at the feedpoint,
> where does the current flowing in the shield go?

456. Re: Full Wave Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 00:09:31 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <rLoVe.123$Nw6.80@bignews6.bellsouth.net>
Source record: 70753

Hang a closed loop 5% longer in back of it and one 5% shorter in front, and
you'll hava a quad.

"Steven Fritts" <w4sef@bellsouth.net> wrote in message
news:jalbi19nerau89mih6i17311b4svb5n963@4ax.com...
> Hi all,
>
> I am thinking of building a full wave loop for 17 meter ham band. What
> I plan to do is to build a cross shaped form...then run wire approx
> 12.7 ft on each side....then hang the antenna vertically from a tree
> or mount it on a support 30-40 ft up with the V point of the antenna
> straight up with the other "V" point straight down. In other words the
> antenna will look like a diamond hanging vertically in the air. If I
> feed the antenna at the bottom V with ladder line, one lead on each
> leg, how will this antenna perform? The antenna wire wil be seperated
> at the bottom point-not tied together. Will it have any gain? I am
> sure there will be directivity broadside to the antenna.Thanks for any
> help.
>
> Steve W4SEF

457. Re: SGC model SG-230 SmartTuner - Automatic Antenna Tuner on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 00:40:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43261fee$0$32207$39cecf19@news.twtelecom.net>
Source record: 70754

Anchor wrote:

> Mine packed up. Four years of pactor email did it.
>
> Apply RF power and the relays chatter never settling down to a tuned
> configuration. It does this regardless of whether I am trying to load up
> an antenna or a dummy load.
>
> We have been playing with PIC's lately. I wonder if it is worth while to
> use a PIC and the relay switched inductors and capacitors to make a make a
> home brewed automatic tuner. PIC frequency counter software is all over
> the net. Something like a 16F870 has five 10-bit A2D's. That's about all
> one would need to make an automatic tuner from a broken SG-230.

My experience with an LDG Z11 has been very much unlike that. They make several models, including one that will handle a kilowatt. The Z11 I have was intended for QRP with a maximum of 60 watts. I can't tell you how the other models will work, but they are all based on the same microcontroller (I think) and base software, so my guess is that they will perform equally well.

I bought my Z11 as a kit, and it was a well done one. As good as any Heathkit. Doesn't look like they sell kits any longer.

The web site is www.ldgelectronics.com.

tom
K0TAR

458. Re: K!MAN Has a Case ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 01:21:59 UTC
From: Jack <Jack@home.net>
Message-ID: <78c58$432629bb$8b3702ec$30383@ALLTEL.NET>
Source record: 70755

Has a case? Of Hemoroids maybe?

Otherwise the feds are gonna fry him nowdays!
"Morris" <Sherins@bellsouth.net> wrote in message
news:1126268474.457608.134880@g47g2000cwa.googlegroups.com...
> He's crossed the line numerous times: doing foreign policy, defaming
> Riley Hollingsworth, going commercial. But he has a case.
>
> When Ervin Duggan was FCC Chief Commissioner in the 80s, Baxter
> received two NALs similar to the present. Dutifully, he spent a great
> deal of time on his response, serving same on the FCC by regular mail.
> When the mail was "lost," Baxter resorted to Federal Express with no
> better result.
>
> So, here was an agency, pre-Hollingsworth, that had issed two NALs and
> had purposely sandbagged K1MAN's answer -- with good reason.
>
> In his answer, Baxter cited two documents of probative value. One was
> a letter to Kenneth Black of Ulmerton, UK, responding to his complaint,
> that gave K1MAN's operation a clean bill of health, equating it to W1AW
> bulletins. It was signed by Robert McNamara, Chief of the FCC,
> then-Private Radio Bureau.
>
> The other was a declaratory order on the subject of the length of
> Information Bulletins with a footnote that referred to W1AW published
> schedules. The essence of the order was, information bulletins cannot
> be proscribed by time limits since they are so varied. Rightly or
> wrongly, Baxter has drawn his authority to come on when he does from
> that Order's footnote.
>
> Small wonder the FCC disregarded K1MAN's answer, which essentially held
> that the issue of the NALs had already been settled in his favor. In
> legal argot, res judicata.
>
> Though most hams, including myself, want to march Baxter right out of
> this service, justice dictates something else. The FCC, it seems to
> this commentator, has the burden of first addressing its previous NALs
> of the 80s which were never resolved.
>
> An agency of government simply cannot throw a flurry of similar charges
> at a citizen, selectively unresponsive to those that can be defended,
> while arbitrarily limiting its attention to subsequent charges.
> Certainly, to the extent the previous NALs are similar, the legal
> principle of collaterol estoppel comes into play in Baxter's behalf.

>
> I don't like what Baxter does any more than you. Indeed, I think he
> lost his way years ago. But if we're to have justice for all in these
> United States, then we must afford K1MAN justice. Let's not throw out
> the baby with the bath water.
>
> Bob Sherin, W4ASX
>

459. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 01:26:37 UTC
From: Roger Leone <raleoneTAKEOUT@sbcglobal.net>
Message-ID: <hVpVe.329$7x4.4@newssvr13.news.prodigy.com>
Source record: 70756

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:olghv2-js4.ln1@p400bob.personal.cox.net...
> Okay?

Bob:

Okay, I see what you are planning to do. Seems reasonable, but there is still a strangeness to the coax shields of the Q section being connected only to each other. Let us know how it works.

Roger

460. FS: Shortwave Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 01:37:21 UTC
From: rubber neck <NOSPAMssaltines@gmail.com>
Message-ID: <8abci1hpbn6veslaj8krr38djnif0u6bc8@4ax.com>
Source record: 70757

FS: shortwave radio dx-394

this is a radioshack all digital shortwave reciever.
covers 150 khz to 29999 khz
am,usb,lsb,cw bands

digital green backlit display.
programable stations, s-meter

this is a well cared for reciever that i have used
and owned for many years. it will operate on 12 volts
or 120 volt ac power source.

has a telescopic antenna (factory)
or you can thread on a pl-259 coax connector
(c.b. radio type) and use an outdoor antenna.

has a tape recorder rca connector on the back
for recording broadcast. or you may use this
to link to your computer with the right software
to decode morse code and weatherfax's in real time.

I would like to get $75.00 CA
for this reciever, not including shipping..

remove NOSPAM from my email address to reply.

461. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 02:24:36 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <6qudnRtjVJhVpLveRVn-tQ@comcast.com>
Source record: 70758
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Carl / W6VDC" <carl.hixon@cox.net> wrote in message
news:bnkVe.8821$mH.8469@fed1read07...
>
>> And then, there are the morons and bigots:
>> <http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG=Search+News>
>
> I looked at the link and read a couple of the articles. I didn't see
> anything that warranted labelling them bigots. I don't think that the HOA
> took the proper position, but that doesn't make them bigots.

However it would seem to indicate that they lack humanitarianism.

462. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 03:29:04 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <432647A7.FF531A57@earthlink.net>
Source record: 70759
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dee Flint wrote:
>
> "Carl / W6VDC" <carl.hixon@cox.net> wrote in message
> news:bnkVe.8821$mH.8469@fed1read07...
> >
> >> And then, there are the morons and bigots:
> >> <http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG
=Search+News>
> >
> > I looked at the link and read a couple of the articles. I didn't see
> > anything that warranted labelling them bigots. I don't think that the HOA
> > took the proper position, but that doesn't make them bigots.
>
> However it would seem to indicate that they lack humanitarianism.

They finally backed down today, after a change in the HOA and a
number of residents calling realtors to see if they could find another
home to move out of Majestic Oaks.

BTW, the same HOA tried to evict a resident after 9/11 for having the
nerve to display the American flag in one of their windows. The local
paper had printed a full page American flag on heavy paper stock and
asked people to display them in their homes.

--
?

Michael A. Terrell
Central Florida

463. Re: help with a marine antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 04:59:18 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <G0tVe.7302$Hs6.4103@trnddc07>
Source record: 70760

Hi Tom

It appears that Peter, the original poster, has re-thought his project and decided to not include this group in his planning.
I want to thank you for making me aware of the long colinears you searched out to inform us about.

Jerry

"Tom Ring" <news0002@taring.org> wrote in message news:43243515$0$32194$39cecf19@news.twtelecom.net...
> Richard Clark wrote:
>
>> Hi Tom,
>>
>> And 30 inches (more than 6 wavelengths long?) would seem to have long
>> met diminishing returns. Given the prospects of it bobbing on the
>> ocean, with a successively dipping and rising critical elevation gain
>> - well that sounds like no kind of solution to a problem.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> And before anyone mentions the downtilt or polarization, here's a
> horizontally polarized one with no downtilt. Unfortunately no pattern
> shown for this one, though.
>
> http://www.firstmilewireless.com/prod_ant2oh13.html
>
> tom
> K0TAR

464. Re: Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 05:29:55 UTC
From: Paul P <p.pinyotREMOVE@REMOVEworldnet.attREMOVE.netREMOVE>
Message-ID: <nttVe.237297$5N3.13240@bgtnsc05-news.ops.worldnet.att.net>
Source record: 70761
Body handling: HTML body converted to readable text

Thank you everyone for contributing. I think we have it identified. Lots
of good information was received and it will help prepare to move and
re-erect the tower. Several hams that have look at it commented on its good
condition. It should be an easy move thanks to the guys at my club
http://www.skyviewradio.net/

Any information that was send to me can be found at the page below.

Thanks again,
Paul.

"Paul P" wrote in
message news:v5fUe.214720$5N3.62635@bgtnsc05-news.ops.worldnet.att.net...
> Gentlemen,
>
> I am attempting to identify the tower manufacture of the tower pictured
> at:
> http://www.ppinyot.com/antenna.htm. I would like to properly design a
> base for it given the manufacturers specs plus perhaps pick up additional
> sections.
>
> The tower seems to be of a stamped steel design (not tubular) with stamped
> steel cross members. It has been well maintained by the silent key's son.
> I gather it is about 10 to 15 years old. There is an unpainted ladder
> chained to one side for storage. Please do not confuse this as part of the
> tower.
>
> Also if you happen to recognize the beam please Identify it too.
>
> Unfortunately some one discarded all the paper work not knowing it's
> value.
>
> Thanks Paul
>
> paul at ppinyot dot com
>
> KB3LZP
>

465. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 06:31:56 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <ahsci1l8fkh8n1cmlvjfrc8jckik3oo48k@4ax.com>
Source record: 70762

On Mon, 12 Sep 2005 18:38:34 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>The modelled Z is around 140 ohms. The "top" element of the loop is
>about 20% longer than the other two. It is starting to approach a folded
>dipole.

Okay. 75 ohm is -still- better than 100.

466. impedance: how to

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 07:27:04 UTC
From: yhan <cheian07@yahoo.com>
Message-ID: <1126596424.893256.276410@f14g2000cwb.googlegroups.com>
Source record: 70763

Greetings,

I built my antenna with the help of this newsgroup and other articles from the net. thanks to all. Now, the only problem is i am a little bit confuse about impedance. (but still studying for it). how will i know the impedance of my antenna so that i can buy a transformer or balun that will match the ... feedline(is it the right term?). Is there a standard formula for calculating impedance of a home-made antenna?

thanks in advance,

ian

467. Re: Full Wave Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 10:56:54 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.sw1fc4x2cdad2j@elbc-crz2m9noal>
Source record: 70764

On Mon, 12 Sep 2005 15:45:45 -0400, Steven Fritts <w4sef@bellsouth.net>
wrote:

> Hi all,
>
> I am thinking of building a full wave loop for 17 meter ham band. What
> I plan to do is to build a cross shaped form...then run wire approx
> 12.7 ft on each side....then hang the antenna vertically from a tree
> or mount it on a support 30-40 ft up with the V point of the antenna
> straight up with the other "V" point straight down. In other words the
> antenna will look like a diamond hanging vertically in the air. If I
> feed the antenna at the bottom V with ladder line, one lead on each
> leg, how will this antenna perform? The antenna wire wil be seperated
> at the bottom point-not tied together. Will it have any gain? I am
> sure there will be directivity broadside to the antenna.Thanks for any
> help.
>
> Steve W4SEF

Hi Steve,

The clssic Quad loop is a good single band antenna , you could feed it
with coax as well. (75 ohm) The impeadence is about 125 ohoms. It will
have on the order of about 1 to 3 db of gain over a dipole
bi-directional. but that is not much and you won't notice a lot of
difference , some claim the loop is much quiter on Rx and that has been
the experience here. If your thought is to use it on multiple bands the
vertical loop is a poor choice for that application.. but it's a good
single band antenna.
you may want to look over the material on Cebik web page at
http://www.cebik.com/fdim/fdim5.html

In any event have fun and experiment.
73 Dave KC1DI

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

468. Help required to identify antenna type

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 11:54:03 UTC
From: David <groups@orbitcoms.com>
Message-ID: <v5zVe.42161$FA3.13896@news-server.bigpond.net.au>
Source record: 70765

Hi,

I have a Whip antenna that is supposed to give 3dB "gain" at 915MHz.
After pulling the unit apart and studying the construction, I am not
sure what style of antenna this is.

The antenna consists of an SMA plug that has RF178 cable soldered to
centre pin and
it appears earth braid is connected to ground side of plug.

The cable goes up the inside of 1 6mm Nylon tube for 40mm and then
exits the tube and winds around 4.5T. It then enters the tube
again and runs another 80mm. At this point the earth braid is stripped
leaving only the centre conductor and dielectric to continue another 70mm
to the top of the Radome (Nylon tube).

I understand the construction of 5/8 antenna but I would not expect the
braid to be earthed.

Thanks in advance for any help.

Regards

David

469. Re: Help required to identify antenna type

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 12:43:12 UTC
From: Dave <noone@nowhere.com>
Message-ID: <iLCdnXlQm_v-VLvenZ2dnUVZ_tGdnZ2d@crocker.com>
Source record: 70766

the 4.5 turns is a choke that cuts off the bottom part of the braid from the top. the top 80mm and 70mm parts are then just a vertical dipole with the feedpoint at the spot where the braid stops.

"David" <groups@orbitcoms.com> wrote in message news:v5zVe.42161$FA3.13896@news-server.bigpond.net.au...
> Hi,
>
> I have a Whip antenna that is supposed to give 3dB "gain" at 915MHz.
> After pulling the unit apart and studying the construction, I am not sure
> what style of antenna this is.
>
> The antenna consists of an SMA plug that has RF178 cable soldered to
> centre pin and
> it appears earth braid is connected to ground side of plug.
>
> The cable goes up the inside of 1 6mm Nylon tube for 40mm and then
> exits the tube and winds around 4.5T. It then enters the tube
> again and runs another 80mm. At this point the earth braid is stripped
> leaving only the centre conductor and dielectric to continue another 70mm
> to the top of the Radome (Nylon tube).
>
> I understand the construction of 5/8 antenna but I would not expect the
> braid to be earthed.
>
> Thanks in advance for any help.
>
> Regards
>
> David

470. Re: impedance: how to

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 12:45:06 UTC
From: Dave <noone@nowhere.com>
Message-ID: <9-WdnQReKPtKVLveRVn-qA@crocker.com>
Source record: 70767

there are programs that will calculate it, but usually not very accurately.
it is best to measure it and either adjust it to match the feedline or add a
matching network to get it to match the feedline. how closely it must match
the feedline depends on what it is being used for, which you haven't said.

"yhan" <cheian07@yahoo.com> wrote in message
news:1126596424.893256.276410@f14g2000cwb.googlegroups.com...
> Greetings,
>
> I built my antenna with the help of this newsgroup and other articles
> from the net. thanks to all. Now, the only problem is i am a little bit
> confuse about impedance. (but still studying for it). how will i know
> the impedance of my antenna so that i can buy a transformer or balun
> that will match the ... feedline(is it the right term?). Is there a
> standard formula for calculating impedance of a home-made antenna?
>
> thanks in advance,
>
> ian
>

471. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 12:48:05 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <0ICdncTJkPKeVrveRVn-vA@comcast.com>
Source record: 70768
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Dee Flint wrote:
> "Carl / W6VDC" <carl.hixon@cox.net> wrote in message
> news:bnkVe.8821$mH.8469@fed1read07...
>
>>> And then, there are the morons and bigots:
>>><http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG=Search+News>
>>
>>I looked at the link and read a couple of the articles. I didn't see
>>anything that warranted labelling them bigots. I don't think that the HOA
>>took the proper position, but that doesn't make them bigots.
>
>
> However it would seem to indicate that they lack humanitarianism.
>
>
Judgments!!! Would it not be better to read the exact terms of the CC&R,
AKA CONTRACT, before judgments are made??

The exact wording of the HOA/CC&R may restrict certain activities [such
as external antennas, or temporary housing, etc]. The restriction can
only be waived by consent of the members of the HOA.

>

472. Re: impedance: how to

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 12:54:56 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <gbOdnawJ5eMJUbveRVn-qg@comcast.com>
Source record: 70769

yhan wrote:

> Greetings,
>
> I built my antenna with the help of this newsgroup and other articles
> from the net. thanks to all. Now, the only problem is i am a little bit
> confuse about impedance. (but still studying for it). how will i know
> the impedance of my antenna so that i can buy a transformer or balun
> that will match the ... feedline(is it the right term?). Is there a
> standard formula for calculating impedance of a home-made antenna?
>
> thanks in advance,
>
> ian

Impedance is very complex. As mentioned in another reply the easiest way
is to measure it. But, that post did not give advice on how to measure it.

Contact a Ham [amateur] radio operator/station in your area. Once found,
ask if [s]he knows someone who has an antenna analyzer. Most Antenna
analyzer owners, they cost about $200 to $300 USD, are willing to make
the measurement for you. Most Ham clubs have several people who own such
instruments.

What kind of antenna did you build? If it is a 'standard' type we can
give you a fair estimate right here on r.r.a.a.

Ham Op

473. Re: Help required to identify antenna type

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 13:04:06 UTC
From: Paul P <p.pinyotREMOVE@REMOVEworldnet.attREMOVE.netREMOVE>
Message-ID: <a7AVe.239071$5N3.9942@bgtnsc05-news.ops.worldnet.att.net>
Source record: 70770

Could you post pictures on the binaries or email them to me please? I would like to see this.

Thanks in advance,
Paul.

p.pinyot [at] worldnet [dot] att [dot] net

"David" <groups@orbitcoms.com> wrote in message
news:v5zVe.42161$FA3.13896@news-server.bigpond.net.au...
> Hi,
>
> I have a Whip antenna that is supposed to give 3dB "gain" at 915MHz.
> After pulling the unit apart and studying the construction, I am not sure
> what style of antenna this is.
>
> The antenna consists of an SMA plug that has RF178 cable soldered to
> centre pin and
> it appears earth braid is connected to ground side of plug.
>
> The cable goes up the inside of 1 6mm Nylon tube for 40mm and then
> exits the tube and winds around 4.5T. It then enters the tube
> again and runs another 80mm. At this point the earth braid is stripped
> leaving only the centre conductor and dielectric to continue another 70mm
> to the top of the Radome (Nylon tube).
>
> I understand the construction of 5/8 antenna but I would not expect the
> braid to be earthed.
>
> Thanks in advance for any help.
>
> Regards
>
> David

474. Re: impedance: how to

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 13:34:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg6kga$mn2$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70771

There are more formulas than there are types of antenna.
Please describe in little detail the type of antenna you are
interested in.

But in general, you will be unable to use a formula because you will
not know the basic data to put into it.

However, given more information, somebody may be able to provide you
with a sufficiently accurate numerical value.

Reg.

475. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 13:40:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126619005_27655@spool6-east.superfeed.net>
Source record: 70772

Roger Leone wrote:
> My math says that 2 sections of 50 ohm coax in parallel makes a 25 ohm
> feeder, not a 100 ohm feeder.

The two sections are not electrically paralleled but instead
are used as balanced feeders. They are physically parallel
but electrically in series, thus Z0 = 100 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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476. Re: impedance: how to

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 13:59:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126620145_27679@spool6-east.superfeed.net>
Source record: 70773

yhan wrote:
> I built my antenna with the help of this newsgroup and other articles
> from the net. thanks to all. Now, the only problem is i am a little bit
> confuse about impedance. (but still studying for it). how will i know
> the impedance of my antenna so that i can buy a transformer or balun
> that will match the ... feedline(is it the right term?). Is there a
> standard formula for calculating impedance of a home-made antenna?

If you describe it, some kind soul may be able to tell you.
Is it single frequency or multi-band? Sometimes a 1:1 choke
is the logical choice for a "balun".

What a lot of us do is model our antennas to get an estimate
of the feedpoint impedance. A free version of EZNEC can be
downloaded from http://www.eznec.com.

Other free software available from:
http://www.btinternet.com/~g4fgq.regp
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
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477. Re: Full Wave Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 14:04:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126620425_27685@spool6-east.superfeed.net>
Source record: 70774

KC1DI wrote:
> The clssic Quad loop is a good single band antenna , you could feed it
> with coax as well. (75 ohm) The impeadence is about 125 ohoms. It will
> have on the order of about 1 to 3 db of gain over a dipole
> bi-directional.

Hi Dave, I'm interested in knowing how you get the gain of a
quad loop to equal the gain of an Extended Double Zepp dipole?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

478. Re: Help required to identify antenna type

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 14:07:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126620636_27687@spool6-east.superfeed.net>
Source record: 70775

Dave wrote:
> the 4.5 turns is a choke that cuts off the bottom part of the braid from the
> top. the top 80mm and 70mm parts are then just a vertical dipole with the
> feedpoint at the spot where the braid stops.
>
>>I have a Whip antenna that is supposed to give 3dB "gain" at 915MHz.

Which makes one wonder "3dB 'gain'" over what?
--
73, Cecil http://www.qsl.net/w5dxp

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479. Re: impedance: how to

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 14:10:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126620760_27689@spool6-east.superfeed.net>
Source record: 70676

Ham op wrote:
> Impedance is very complex.

:-) sometimes yes, sometimes no. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

480. Re: Help required to identify antenna type

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 14:25:19 UTC
From: David <groups@orbitcoms.com>
Message-ID: <jjBVe.42256$FA3.5838@news-server.bigpond.net.au>
Source record: 70677

Cecil Moore wrote:
> Dave wrote:
>
>> the 4.5 turns is a choke that cuts off the bottom part of the braid
>> from the top. the top 80mm and 70mm parts are then just a vertical
>> dipole with the feedpoint at the spot where the braid stops.
>>
>>> I have a Whip antenna that is supposed to give 3dB "gain" at 915MHz.
>
>
> Which makes one wonder "3dB 'gain'" over what?

I purchased these a while ago and pulled them apart to see if there was
much involved in making similar units. They stated 3dB but did not
indicate whether it was dBi or dBd.

What are your recommendations for 915MHz omni-directional antenna ?
I want to see what kind of range I can get from a pair of 1 Watt,
spread spectrum data transceivers with oni-directional antenna.

Thanks

481. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 14:59:58 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <g46jv2-ib6.ln1@p400bob.personal.cox.net>
Source record: 70678

Hi Roger

Might get around to it today! (Being unemployed is sometimes fun..)

Also looking at the possibility of harmonic operation w/out adjustment.
Not useful for a 20M quad as the next usable freq is about 38Mhz. I
found though that if I (modelled) cut for 10.1Mhz it is also usable
28.4-29.0. This is also a good reason for using the high side impedence
transformation (ie 50r to 100r = 122r vs 50r to 75r = 90r) as the Z on
10M is higher. Radiation pattern isnt much good for long DX though..

Cheers Bob

Roger Leone wrote:

>
> Okay, I see what you are planning to do. Seems reasonable, but there is
> still a strangeness to the coax shields of the Q section being connected
> only to each other. Let us know how it works.
>
> Roger
>
>

482. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 15:04:56 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <od6jv2-ib6.ln1@p400bob.personal.cox.net>
Source record: 70679

Err why?

50r to 100r = 122r
50r to 75r = 90r

Do I have the calcs right?

Wes Stewart wrote:

> Okay. 75 ohm is -still- better than 100.
>

483. Re: Help required to identify antenna type

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 15:08:03 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126624242_27741@spool6-east.superfeed.net>
Source record: 70680

David wrote:
> I purchased these a while ago and pulled them apart to see if there was
> much involved in making similar units. They stated 3dB but did not
> indicate whether it was dBi or dBd.

No phasing coils anywhere?

> What are your recommendations for 915MHz omni-directional antenna ?

I'm not the person to ask. All I would do is access the
web pages of the antenna manufacturers, like Diamond.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

484. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 15:10:29 UTC
From: Carl / W6VDC <carl.hixon@cox.net>
Message-ID: <vYBVe.9651$mH.7595@fed1read07>
Source record: 70681
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

> BTW, the same HOA tried to evict a resident after 9/11 for having the
> nerve to display the American flag in one of their windows. The local
> paper had printed a full page American flag on heavy paper stock and
> asked people to display them in their homes.

It is exactly that type of over zealous HOA that made me tell my Realtor, "Do not shot me a house with any HOA!" On our first trip out , the first house she showed me had an HOA. I told her, "If you do that again, you are fired" She looked shocked and said, "It's only $50/month." And I replied, "It has nothing at all to do with money..."

Of course, now I have a house across the street with no less than 8 cars in the driveway and street. So much for single-family-home. But, we all get along.

Carl

485. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 15:16:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126624733_27751@spool6-east.superfeed.net>
Source record: 70682

Bob Bob wrote:

> Err why?
> 50r to 100r = 122r

SQRT(50*200) = 100

> 50r to 75r = 90r

SQRT(50*100) = 70.7

> Do I have the calcs right?
>
> Wes Stewart wrote:
>> Okay. 75 ohm is -still- better than 100.

SQRT(50*140) = 84 ohms. Z0=75 ohms is closer to
84 ohms than is Z0=100 ohms. If you had a 200 ohm
feedpoint, Z0=100 ohms would be perfect.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

486. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 15:22:13 UTC
From: richardharrison@webtv.net
Message-ID: <9175-4326EEA5-1@storefull-3254.bay.webtv.net>
Source record: 70684

Eternal Squire wrote:
"I`d like some advice for determining the best antenna to put up in my situation.

I am getting set to move to a trailer park in northeast Arizona."

Phil Rand, W1DBM distilled 35 years of trailering experience in QST and it was reprinted in the 1978 ARRL Antenna Anthology.

As Richard Clark wrote, there is no miracle antenna.

Phil found a simple dipole only a few feet above ground would outperform a mobile whip on 40 or 75 meters.

Here is Phil`s Table 3:

Hustler 75-meter Mobile whip mounted vertically on top rear corner of trailer-------S7

Same as above with 60-foot counterpoise connected to trailer-----------------------------S9

Two Hustler mobile whips back to nack
as a horizontal loaded dipole-------------S9+5dB

60-foot horizontal wire 8 feet high using trailer (30-ft. Airstream) as ground------S9+10dB

Hustler 4BTV trap vertical with
75 meter resonator-------------------------S9+10dB
120 foot dipole, 15 feet high at
center---S9+20dB

Airstream Loop antenna------------------S9+20dB

Home station dipole 50 feet high------S9+30dB

Feet = 0.3048 m

There is a lot more in the article which may interest operators from trailers, but I`m not a typist. Check the Airstream Loop antenna. Nothing extends laterally from the trailer to trip anyone up.

Best regards, Richard Harrison, KB5WZI

487. 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 15:31:39 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1126625499.680151.37850@g47g2000cwa.googlegroups.com>
Source record: 70683

I am a newbi in antennas.

Here's my question:

I know that a half-wave dipole in free space has
a feed-point impedance of approximately 73 ohms.

Can anyone tell me **exactly** how this number is calculated.

(or tutorial webpages)

I mean I like to see a general formula (a function of
antenna height above earth....) and all the detailed steps
that will get the impedance number.

Thanks!

-- Harry

488. Re: loop antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 15:59:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg6t1lqht1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70685

John,

I once had a magloop for 160 and 80 meters almost as big as the one you propose. It worked fine. According to predictions. Eventually, needing the garden space for other projects, I swapped it for a bottle of New Zealand white wine.

But to reduce the weight of a 1.5-inch diameter copper-pipe conductor plus the tuning capacitor, the conductor was made of thin-wall, hard aluminium alloy known as Duralumin in these parts. (Pure aluminium is far too soft and is useless.)

The loop was formed from three sections of tube which fitted into each other to make a complete circle. The curvature of the sections had to be formed in an engineering workshop.

It needed three guy ropes and could be rotated about an angle of 90 degrees, five feet above ground level, inside a 2-inch diameter, cast iron tube sunk into the soil.

There was an aluminium alloy vertical supporting tube which extended from below ground level almost to the highest point of the main loop and the motor-driven tuning capacitor. A vertical conductor, running diametrically across the main loop, has no effect on electrical performance.

I had very good neighbours. Never had a single compaint about the wierd contraption which soared well above the skyline from my side of the 6-foot high bushes and trees which constituted the boundary between my property and theirs. It never occurred to me to request planning permission from the local authorities. With the assistance of a local Black Country radio friend, G3VFF, a born mechanical engineer, handicapped by an industrial accident, we just erected it!

It helped, to my satisfaction, to prove the veracity of some of my radio software programs.

John, I wish you all the very best with your project.

Cheers, Reg, G4FGQ.

489. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:07:35 UTC
From: Wes Stewart <n7ws_@*yahoo.com>
Message-ID: <litdi1d4u710nu8h04dlkujh70fqffvad8@4ax.com>
Source record: 70686

On Tue, 13 Sep 2005 10:04:56 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>Err why?
>
>50r to 100r = 122r
>50r to 75r = 90r

Cecil already gave you the answer. A 90-degree line is called a
"geometric mean" transformer.

The required impedance is the square root of the product of the
desired R and the load R.

Here's a little tutorial:

http://www.microwaves101.com/encyclopedia/quarterwave.cfm

490. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:13:05 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <04idnX3aNpMWZ7venZ2dnUVZ_smdnZ2d@web-ster.com>
Source record: 70687

Harry wrote:
> I am a newbi in antennas.
>
> Here's my question:
>
> I know that a half-wave dipole in free space has
> a feed-point impedance of approximately 73 ohms.
>
> Can anyone tell me **exactly** how this number is calculated.
>
> (or tutorial webpages)
>
> I mean I like to see a general formula (a function of
> antenna height above earth....) and all the detailed steps
> that will get the impedance number.
>
> Thanks!
>
> -- Harry
>
That calculation comes about as the culmination of a two-semester junior-level college course in Electrodynamics. Because of their mathematical intensity most people suffer through such courses with grim determination rather than greeting them with joy.

The 73 ohm number assumes an antenna in free space with a magic zero-size current source at it's center and no wires going to the antenna. Then some handwaving simplifications are made, a current gradient is assumed, a voltage gradient is calculated, and the impedance (and antenna pattern) is calculated. If you want to avoid the handwaving simplifications you take _another_ year of antenna-specific E&M and/or you write a program like NEC to do the calculation numerically.

This is why the antenna chapters in the Handbook start with very basic theory then take a very long jump to a compendium of results, without trying to fill in all the space in between.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

491. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:15:08 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <xn0e76wo02tyc9000@cnews.newsguy.com>
Source record: 70691

Richard Harrison wrote:

> Phil found a simple dipole only a few feet above ground would
> outperform a mobile whip on 40 or 75 meters.
~~~~~~

Without more information, this comparison is flawed. A mobile whip has a lower angle of radiation than a horizontal dipole. On 40 or 75, the vertical component of radiation can be quite significant for close-in stations (100 miles or so). At night, working long distances, the whip may outperform the dipole. During the day, the dipole will probably outperform the whip.

It all depends.

73, Bill W6WRT
~~~~~~

492. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:18:19 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <EXCVe.1521$Nw6.738@bignews6.bellsouth.net>
Source record: 70689
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Carl / W6VDC" <carl.hixon@cox.net> wrote in message
news:vYBVe.9651$mH.7595@fed1read07...
>> BTW, the same HOA tried to evict a resident after 9/11 for having the
>> nerve to display the American flag in one of their windows. The local
>> paper had printed a full page American flag on heavy paper stock and
>> asked people to display them in their homes.
>
> It is exactly that type of over zealous HOA that made me tell my Realtor,
> "Do not shot me a house with any HOA!" On our first trip out , the first
> house she showed me had an HOA. I told her, "If you do that again, you
> are fired" She looked shocked and said, "It's only $50/month." And I
> replied, "It has nothing at all to do with money..."
>
> Of course, now I have a house across the street with no less than 8 cars
> in the driveway and street. So much for single-family-home. But, we all
> get along.
>
> Carl

I chose an older neighborhood, and, like you, I refused to accept any HOA bullcrap. I simply will NOT tolerate any old blue-haired busybody telling what I can or cannot do on my own property! IOW, yer rights end at that property line, and if you don't like what I do then come over here and *make* me do something about it--all 6 feet, 230 lbs of me!!! :) Now to clarify something, all my neighbors are nice people who keep their homes and property looking decent. If there are 2-3-4--or 7 cars over there, it ain't none of my business! So we have no problems. (and I get to put up as many ham antennas I want to!)

Jerry

493. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:18:29 UTC
From: nm5k@wt.net
Message-ID: <1126628309.444320.196430@g49g2000cwa.googlegroups.com>
Source record: 70688

Phil found a simple dipole only a few feet above ground would
outperform
a mobile whip on 40 or 75 meters.

NVIS sure...Wouldn't be so sure about long haul... My 40 meter
mobile beats my home dipole at 40 ft on a 1000 mile path.

Here is Phil`s Table 3:

Hustler 75-meter Mobile whip mounted vertically on top rear corner of
trailer-------S7

Part of the problem...His mobile is stunted... :(

Same as above with 60-foot counterpoise connected to
trailer-----------------------------S9

Two Hustler mobile whips back to nack
as a horizontal loaded dipole-------------S9+5dB

Again kinda stunted due to the lousy hustler coils... :(
Could be better than that if better coils were used.

60-foot horizontal wire 8 feet high using trailer (30-ft.
Airstream)
as ground------S9+10dB

Pretty mediocre if NVIS...

Hustler 4BTV trap vertical with
75 meter resonator-------------------------S9+10dB
120 foot dipole, 15 feet high at
center---S9+20dB

Airstream Loop antenna------------------S9+20dB

Home station dipole 50 feet high------S9+30dB

Sounds like these are all NVIS paths... For those,
I agree, a dipole/loop is usually best. One problem though...
Often when mounting a low dipole next to a large metal trailer, etc,
the coupling often will make tuning quite difficult. I'd try to get
the dipole as far away from the trailer as possible *if* it
acts squirrely... But a *good* mobile antenna could often
be quite good to longer hauls. On the higher bands, a good
mobile antenna should be just fine.
If it were me, I'd #1 run the best mobile antenna I could rig up
as a vertical. Then I'd run a dipole for low band NVIS stuff. In my

case, I prefer paralleled multiband dipoles, at right angles, but
if I can only run one wire, I'll make a multiband dipole split
up with clipable insulators. If thats not workable, I suppose a
trap dipole could be used, but thats always my last choice
for a multiband dipole setup, being I like every drop of
efficiency I can muster. But the losses with those is not that bad.
With my mobile antenna, I could easily use *just it* if I wanted,
on any band. But my mobile ain't no stunted hustler antenna.
When I'm parked, my usual coil position is higher than the total height
of the average hustler whip. My mobile eats hustlers for lunch
and spits out the seeds... :) It's ugly. I did some tests using
hustler coils
vs my usual homebrew...Wasn't pretty... Adding the hustler coil
is like turning the antenna into a dummy load, *even* considering
that in most mobile setups, ground loss overshadows coil loss.
So if you see a *drastic* decrease in perfomance when changing
coils, Houston, we have a problem. I've seen many claim the "small"
hustler coils are actually more efficient than the "super" coils, which

was the type I tried. Luckily , I didn't pay for it, and I gladly gave
it back after testing... I think he stuck it on a hustler vertical...
Poor
thing.... :(I'd forget the "can" antennas, etc...A good mobile whip
would
likely do about as well. I'd use wire, or regular masts to make a tall
vertical. To me, cans sound like a soldering nightmare... :/ MK

494. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:20:39 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <xn0e76wsz3182d001@cnews.newsguy.com>
Source record: 70692

Harry wrote:

> I know that a half-wave dipole in free space has
> a feed-point impedance of approximately 73 ohms.
>
> Can anyone tell me exactly how this number is calculated.
~~~~~~

Simple Ohm's law: If you apply 73 volts of RF, 1 amp of current will flow.

To calculate the effects of nearby ground a program like EZNEC is useful, although you almost never know the exact parameters of the ground, so the results should not be taken as precise.

73, Bill W6WRT
~~~~~~

495. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:23:07 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <30DVe.1556$Nw6.692@bignews6.bellsouth.net>
Source record: 70690
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Ham op" <hamop@comcast.net> wrote in message
news:0ICdncTJkPKeVrveRVn-vA@comcast.com...
> Dee Flint wrote:
>> "Carl / W6VDC" <carl.hixon@cox.net> wrote in message
>> news:bnkVe.8821$mH.8469@fed1read07...
>>
>>>> And then, there are the morons and bigots:
>>>><http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG=
Search+News>
>>>
>>>I looked at the link and read a couple of the articles. I didn't see
>>>anything that warranted labelling them bigots. I don't think that the
>>>HOA took the proper position, but that doesn't make them bigots.
>>
>>
>> However it would seem to indicate that they lack humanitarianism.
>>
>>
> Judgments!!! Would it not be better to read the exact terms of the CC&R,
> AKA CONTRACT, before judgments are made??
>
> The exact wording of the HOA/CC&R may restrict certain activities [such as
> external antennas, or temporary housing, etc]. The restriction can only be
> waived by consent of the members of the HOA.

That's just it! There ain't gonna BE any HOA's ,covenants, or busybody
neighbors telling me to do a durned thing unless they got enough rear end on
'em to MAKE me! If today, somebody wanted to start an HOA in my
neighborhood, I'd tell them to kiss my (censored).

I feel VERY strongly about property rights, and if I want to put up an
American flag, then I'll put up an American flag and I dare some schweinhund
to come over here and touch it! I DESPISE and detest HOA's! :(

Jerry
>
>>
>

496. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 16:42:03 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <r3cjv2-dh6.ln1@p400bob.personal.cox.net>
Source record: 70693

Aghaa, Okay tnxs Cec... Too much sun and weird drugs.. (prescription of course!)

Cheers Bob

Cecil Moore wrote:
>
>
> Bob Bob wrote:
>
>> Err why?
>> 50r to 100r = 122r
>
>
> SQRT(50*200) = 100
>
>> 50r to 75r = 90r
>
>
> SQRT(50*100) = 70.7
>
>> Do I have the calcs right?
>>
>> Wes Stewart wrote:
>>
>>> Okay. 75 ohm is -still- better than 100.
>
>
> SQRT(50*140) = 84 ohms. Z0=75 ohms is closer to
> 84 ohms than is Z0=100 ohms. If you had a 200 ohm
> feedpoint, Z0=100 ohms would be perfect.

497. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 17:28:17 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <88WdnbrHqZgpkbreRVn-tg@comcast.com>
Source record: 70694
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Jerry wrote:

> "Ham op" <hamop@comcast.net> wrote in message
> news:0ICdncTJkPKeVrveRVn-vA@comcast.com...
>
>>Dee Flint wrote:
>>
>>>"Carl / W6VDC" <carl.hixon@cox.net> wrote in message
>>>news:bnkVe.8821$mH.8469@fed1read07...
>>>
>>>
>>>>> And then, there are the morons and bigots:
>>>>><http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG
=Search+News>
>>>>
>>>>I looked at the link and read a couple of the articles. I didn't see
>>>>anything that warranted labelling them bigots. I don't think that the
>>>>HOA took the proper position, but that doesn't make them bigots.
>>>
>>>
>>>However it would seem to indicate that they lack humanitarianism.
>>>
>>>
>>
>>Judgments!!! Would it not be better to read the exact terms of the CC&R,
>>AKA CONTRACT, before judgments are made??
>>
>>The exact wording of the HOA/CC&R may restrict certain activities [such as
>>external antennas, or temporary housing, etc]. The restriction can only be
>>waived by consent of the members of the HOA.
>
>
>
> That's just it! There ain't gonna BE any HOA's ,covenants, or busybody
> neighbors telling me to do a durned thing unless they got enough rear end on
> 'em to MAKE me! If today, somebody wanted to start an HOA in my
> neighborhood, I'd tell them to kiss my (censored).
>
> I feel VERY strongly about property rights, and if I want to put up an
> American flag, then I'll put up an American flag and I dare some schweinhund
> to come over here and touch it! I DESPISE and detest HOA's! :(
>
> Jerry

Gerry, you said it correctly. Tell your agent "I will not consider, under any conditions, any HOAs or CC&Rs." If the RE attorney uncovers any 'hidden' CC&Rs in the title search, the sale is OFF!

I live in the "Live Free or Die" state [New Hampshire]. When I bought here three years ago I made that point to our realtor. We bought a very nice single family home of 2100 square feet on a 1/2 acre only 21 years old, 6 miles south of the state capital and 12 miles north of the third largest city.

I checked town zoning requirements for a tower. I'm allowed 70 feet for the tower without requesting a variance. Also, if the tower is professionally installed I need not consult the town building inspector. Heights from 70 feet 1 inch to 200 feet require plan approval by the building inspector ONLY for safety issues. BTW: my tower is only 50 feet [I live on top of a 510 foot hill with height above average terrain of 250 feet for 5 miles radius].

But back to the original issue. The HOA may have a strict rule on temporary housing. It is a freely entered into contract condition that requires the consent of the contracting parties to amend.

So, the term 'BIGOT' is a prejudicial pre judgment.

498. Re: impedance: how to

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 17:31:25 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <88WdnbXHqZjlkLreRVn-tg@comcast.com>
Source record: 70695

Cecil Moore wrote:

> Ham op wrote:
>
>> Impedance is very complex.
>
>
> :-) sometimes yes, sometimes no. :-)

NOTE: CECIL is very complex!! Sometimes Yes, sometimes No :-)

499. Re: Full Wave Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 17:42:24 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.sw1x4ygpcdad2j@elbc-crz2m9noal>
Source record: 70696

On Tue, 13 Sep 2005 10:04:26 -0400, Cecil Moore <mycall@arrl.net> wrote:

> KC1DI wrote:
>> The clssic Quad loop is a good single band antenna , you could feed it
>> with coax as well. (75 ohm) The impeadence is about 125 ohoms. It
>> will have on the order of about 1 to 3 db of gain over a dipole
>> bi-directional.
>
> Hi Dave, I'm interested in knowing how you get the gain of a
> quad loop to equal the gain of an Extended Double Zepp dipole?

Hi Cecil,

Good Question.. I should have been more specific.. the gain of a fullwave vertical loop over a 1/2 wave dipole is approximatel 1.2 db-- if you use the same antenna on the 2nd harmonic you will get about 3 db gain , but with that said we must realize that this gain is not necessarily at good angles for DX. The dipole may actually have a better pattern that a 2 wave vertical loop. and thus any gain achieved will be negated by the fact that this gain is at angles that are not conducive to good Dx propagation.

Cebik places the gain of a full wave vertical loop at about 5.9 dbi that rises to about 7.6 dbi on the 2nd harmonic and about 8 dbi on the 4th harmonic.

But the T.O. Angels are as follows-- Fundamental Frequency- 35 deg. 2nd harmonic 48 degrees 4 harmonic 45 degrees This is for a square loop. these are not great figures for DX but useable none the less. A Dipole would though I have not researched it do better in the angle department. thus any gain received by the loop would be negated but a stornger signal at the right angle by the dipole.

73 Dave

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

500. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 17:44:04 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <EdEVe.711$Gy3.565@newsread3.news.pas.earthlink.net>
Source record: 70697
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote
>
> As usual our resident dissident has no idea what he is talking about. Here in
> Alabama we have provided the operators to man the shelters for the Red Cross
> on the Gulf Coast. They have, and ARE providing the ONLY communications
> between the shelters and Red Cross HQS in Montgomery.
>

Often at considerable personal risk....

A guy who is a radio-tower contractor (like cell sites, microwave towers,
commercial radio stations, etc.) sent this.

We got the call on Sunday afternoon. I expected
it, of course. After 18 years of doing this I can always sense when
the call is about to come. We gathered supplies on Monday and got
out the tents, Coleman fuel, cook stove, lanterns and bedrolls. Becky
graciously went to the store for our provisions, then to the bank for
cash, and by dark we had all in order.

We went by to see the customer on Tuesday morning to equip ourselves
with radios, site maps, and lists of those that we would be reporting
to. As we departed on Tuesday mid day I knew that this would be
another great adventure. All was good through Pine Bluff and Lake
Village, Arkansas. Greenville, Mississippi was even tolerable. By the
time we got to Yazoo City, however, things had changed. No ATM's, no
gas, no ice. I knew we were in trouble when the lines at the check
cashing places were longer than those at the banks. We had half a
tank. I had stopped in Dumas and bought 12 half pints of whiskey
knowing that with such legal tender a full tank could be mine
whenever I wished. We pressed on.

We arrived in Jackson to the sight of long lines at the gas stations
and grocery stores with crowds gathered outside. How wonderful it
felt to have the secure gates of the Entergy compound locked behind
us. There was little electricity and no hotel rooms. We readied the
camping supplies and checked the map for a good state park. A little
fuel from the Gods at Entergy and we were on our way. We found a
decent park (no electricity, of course) and pitched camp. Dinner was
chicken helper, mashed potatoes and tea. It began to rain but
thankfully we had brought a huge roll of Visqueen. A large tent was
erected above our sleeping bags and in no time Wednesday morning

found us nursing our mosquito bites and eating oatmeal. After that it was off for a day in the air.

I should mention at this point that I brought my stellar lead man, Paul Fitler. Paul spends too much time in jail, too much time in the sauce, and too much time attending to women that can't take care of themselves. He is constantly deep in debt and out of a place to live, and good transportation. He is also the best, and highest paid towerdog in the state. An average week for him is $1000.00 gross. He'll easily double that during his tenure here. In fact, I'd imagine that he may have a $2500.00 week before it's all over. He has worked for me over eight years. He can't last working for anyone else more than ten days.

We take off Wednesday in a search for fuel, ice, and towers on our maps and find all of them. It is another long hard, hot day. We are constantly greeted with bewildered folks looking at trees impaled in their roofs, cars mangled and electric lines in their yards. We have Entergy signs on the side of the van at this point and when they see those signs their looks are heart wrenching and desperate. We look back with sympathy. They do not understand. They want us to have the answer. They want us to make it all better. They want relief which we cannot give. We give 100% that day and many communications tower sites come back to life. We see the line trucks begin to roll as we leave town. We are glad to have played a part in this process.

Thursday finds us in the office. The telecom crew is going ballistic. There are people everywhere barking out orders. So and so needs 19 phones installed at the office in Hattiesburg , the computers are down at thus and so, the radio system has died at Tylertown and the line crews can't work. The locals see the trucks sitting idle and they are getting angry. The locals don't understand that the line crews can't work unless they know for sure that lines are not energized.

The line crews can't be assured of that unless they have good communications. They can't have good communications unless the telecom guys do their jobs and in turn, unless we get the antennae fixed. So the locals are mad. Mad as Hell.

We listen to all of the banter going back and fourth and suddenly someone is shoving a piece of paper in my face and screaming loudly... Generating station (power plant) South of New Orleans . it's off line... no output... city is dark enough as it is... something has to be done. they need a 20 KW generator ASAP in order to have lights so they can get the plant back in service. Someone has to go. It is a war zone down there. The plant must come back to life... And then the inevitable question: "Will you go?" It echoes in my mind... Will I go? Will I? Can we take that chance? I smile. Actually, I grin. Yeah. I'll go. I give them the inevitable response to their inevitable question. "You bet your sweet ass I'll go... Press hard pal, Five copies"!!!

We top off the tank, load the shotgun, holster the pistols and hit the road. This is going to be a trip to remember. As we head out there are few cars on the road. No gas. The traffic is minimal and we set the cruise on 60 so as to conserve gas. Getting there will be easy. Getting back will not be as assured. I know, however, that we have enough gas to get to the plant and at least back to the Mississippi/Louisiana state line. I've got food, ammo, tents and lots of water. If I get stranded I'll be ok. We drive along saying little. We know that one wrong turn or wrong word at the wrong time to the wrong person could change things real quick.

With the Entergy signs on the truck we glide through every roadblock with ease. Cops don't ask for our ID or license. They don't search us. They really don't even look at us. We are riding on a magic carpet. No one will mess with us. They can see what we have in tow. Ah yes. The generator. The magic elixir that everyone wants. Generators make oxygen systems work; they bring food refrigeration units back to life; they bring light to the darkness, life to the newborns at the hospital. We have the generator. We are the stewards of all that the citizens hold sacred at the moment. We are the golden boys. They smile us and we smile back.

We get onto I-310 and then onto US 90 headed for the plant and suddenly our swollen heads and large egos begin to shrink. We are greeted by bands of wandering blacks about 15 to 20 in number. Every store front is destroyed. Some buildings are burned. All of the glass is gone from every window. We do a quick mental calculation as to wind direction during the storm. We realize quickly that many of the broken windows are on the downwind side. We see the crowds... it all makes sense then.

We get to the end of US 90 and make our turn towards the plant. We are confronted by a policeman in full riot gear. The intersection is desolate save for him. An industrial wasteland with this one shred of order standing in the road. He reminds me of some cavalryman in Oklahoma in the early 1800's or some sheriff in a town of lawless criminals. He looks over our cargo curiously and gives us a halting look, letting us know that "Entergy trucks have been taking fire in this area. I suggest you remove or cover your decals".
We see the plant up ahead. The sign of the guard lowering his shotgun is a welcome one. We make our delivery and point our truck for Jackson.

The men at the plant we visit with are worried. They don't want to risk the ride home. Some have wives and kids they must attend to. They have no choice. The others opt to sleep in their trucks to avoid venturing from the perceived safety of the 12 gauge in the hands of the guard.

I envy neither of them. Either choice is dangerous. The gangs in the streets are hungry, thirsty and angry. Neither the guard nor the men on the way home are any match for them. The gangs know it and the men know it. For the first time I understand the delicate balance between

prison guards and their charges. The criminals really do have the upper hand at some moments. Everyone just allows the perceptions to be different than that.

As we head home among fallen timbers, power lines and buildings we come across a group of cops with side arms drawn and pointed at a group of men. On the ground are 15 or 20 individuals cuffed and laying on their faces. There are 9 or 10 cops and only 5 or 6 in the crowd, save those on the ground, so we figure the cops are winning and we punch it and move on. Every store has the front doors kicked in. One shopkeeper had the brilliant idea of putting his coke machines in front of the doors to prevent entry. The thugs were offended and responded by putting a truck through the windows. After they finished their shopping they left their calling card by way of a Molotov cocktail. How quaint.

I thought we were going to burn a hole in the gas gauge on the way home with our eyes. We calculated and recalculated. Every road sign showing mileage to the next map point was checked and rechecked. We were always cognizant of the five gallon can in the back. The fumes it emanated were like sweet perfume to our olfactories. That was the sweet smell of a soft landing. We knew that we could make it back. We felt good about that.

I thought of the B-29 pilots flying missions over Japan in 1944. Their calculations were much harder and there was much more at stake. I wondered what it was like for them when they ran the numbers and the result was death. What were those last hours like? What did they say to one another? I said a prayer for their souls and paid my respects. Real men. Let me never forget that.

My air mattress coupled with the floor of the Entergy Radio shop at Jackson, MS was a welcome relief. I looked forward to a good night's sleep only to be haunted by the looks of those on the streets. Why them and not me? I guess I'll always ask that. I always have. Why am I even here? What drives me to do these crazy things? Why would I put my best lead man along with the father of my children in harm's way? I don't know the answers to those questions. Frankly, I don't really care about the answers. I'm just glad to be safe and alive tonight. I feel bad for those that are without homes and families tonight and wish I could do something to take away their pain.

I think when it is all over I may go back down to that stretch of Highway 90 where the shops were burned. I think I may go back there and meet with the owners. Yeah. That's what I'll do. I'll meet with them. All that they have worked for was taken away from them by one violent act of nature and many lewd acts of men. I'll go meet with those men and women and engage in commerce with them as I can. And when I do. I'll tell them that I understand. Because I do. And they will know that I do. And in the end. I will know that everything will be OK. And they will know that too.

501. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 18:22:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg75db$9df$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70698

"Harry" wrote
> I know that a half-wave dipole in free space has
> a feed-point impedance of approximately 73 ohms.
>
> Can anyone tell me **exactly** how this number is calculated.
>
==========
There's no such value as 'exact'.

All you have to do is integrate the power flowing outwards from a dipole at the centre of an arbitrary sphere with a surface area of x square metres and equate it to the current flowing in the dipole, taking into account the distribution of current along the dipole, and you will obtain the radiation resistance referred to its feedpont. OK?

But in your case, all you can do is just accept the hearsay value of 73 ohms as being good enough.

Actually it depends on the diameter of the dipole relative to its length and at HF it is a few percent less. Not that anybody ever notices such minor discrepancies.

Reg, G4FGQ

502. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 19:11:36 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1126638695.918035.51910@z14g2000cwz.googlegroups.com>
Source record: 70699

Hi Tim and Reg,

Thank you for your valuable information. Is there any website or textbook that actually shows the step-by-step calculation of this magic number which has been quoted so often in the cable industry?

You know most video cables and connectors have characteristic impedance, 75 Ohms.

I am not afraid of math. I just like to understand the details of its derivation.

-- Harry

503. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 20:36:32 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <kLGVe.378$Ob2.322@newssvr12.news.prodigy.com>
Source record: 70700

Harry wrote:
> Hi Tim and Reg,
>
> Thank you for your valuable information. Is there any website or
> textbook that actually shows the step-by-step calculation of this magic
> number which has been quoted so often in the cable industry?
>
> You know most video cables and connectors have characteristic
> impedance, 75 Ohms.
>
> I am not afraid of math. I just like to understand the details of its
> derivation.
>
> -- Harry
>

What you're seeking is in the book _Antenna Theory, Analysis and Design_
by Constantine A. Balanis, ISBN 0-471-59268-4.
73,
Tom Donaly, KA6RUH

504. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 21:02:55 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <Y4udnQWFAIg9orreRVn-gg@comcast.com>
Source record: 70701

Transmission line calculations are much easier than antenna calculations.

To a first approximation: Zo = SQRT(L/C); where L = inductance per unit length, and C = capacitance per unit length.

Harry wrote:
> Hi Tim and Reg,
>
> Thank you for your valuable information. Is there any website or
> textbook that actually shows the step-by-step calculation of this magic
> number which has been quoted so often in the cable industry?
>
> You know most video cables and connectors have characteristic
> impedance, 75 Ohms.
>
> I am not afraid of math. I just like to understand the details of its
> derivation.
>
> -- Harry
>

505. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 22:06:59 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <kdCdnav-l_ID07reRVn-1w@comcast.com>
Source record: 70702
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Michael A. Terrell" <mike.terrell@earthlink.net> wrote in message
news:432647A7.FF531A57@earthlink.net...
> Dee Flint wrote:
>>
>> "Carl / W6VDC" <carl.hixon@cox.net> wrote in message
>> news:bnkVe.8821$mH.8469@fed1read07...
>> >
>> >> And then, there are the morons and bigots:
>> >> <http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btn
G=Search+News>
>> >
>> > I looked at the link and read a couple of the articles. I didn't see
>> > anything that warranted labelling them bigots. I don't think that the
>> > HOA
>> > took the proper position, but that doesn't make them bigots.
>>
>> However it would seem to indicate that they lack humanitarianism.
>
> They finally backed down today, after a change in the HOA and a
> number of residents calling realtors to see if they could find another
> home to move out of Majestic Oaks.
>
> BTW, the same HOA tried to evict a resident after 9/11 for having the
> nerve to display the American flag in one of their windows. The local
> paper had printed a full page American flag on heavy paper stock and
> asked people to display them in their homes.
>
> --
> ?
>
> Michael A. Terrell
> Central Florida

Why doesn't that surprise me?

Dee D. Flint, N8UZE

506. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 22:09:01 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <W46dnVfnD6nM0rreRVn-qQ@comcast.com>
Source record: 70703
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Ham op" <hamop@comcast.net> wrote in message
news:0ICdncTJkPKeVrveRVn-vA@comcast.com...
> Dee Flint wrote:
>> "Carl / W6VDC" <carl.hixon@cox.net> wrote in message
>> news:bnkVe.8821$mH.8469@fed1read07...
>>
>>>> And then, there are the morons and bigots:
>>>><http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btnG=
Search+News>
>>>
>>>I looked at the link and read a couple of the articles. I didn't see
>>>anything that warranted labelling them bigots. I don't think that the
>>>HOA took the proper position, but that doesn't make them bigots.
>>
>>
>> However it would seem to indicate that they lack humanitarianism.
>>
>>
> Judgments!!! Would it not be better to read the exact terms of the CC&R,
> AKA CONTRACT, before judgments are made??
>
> The exact wording of the HOA/CC&R may restrict certain activities [such as
> external antennas, or temporary housing, etc]. The restriction can only be
> waived by consent of the members of the HOA.
>

Nothing stops them from calling an immediate emergency meeting to address
temporarily suspending such limits in times of great need.

Dee D. Flint, N8UZE

507. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 22:16:47 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <asGdnR0R3qazzLreRVn-qA@comcast.com>
Source record: 70704
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Ham op" <hamop@comcast.net> wrote in message
news:88WdnbrHqZgpkbreRVn-tg@comcast.com...
> Jerry wrote:
>
>> "Ham op" <hamop@comcast.net> wrote in message
>> news:0ICdncTJkPKeVrveRVn-vA@comcast.com...
>>
>>>Dee Flint wrote:
>>>
>>>>"Carl / W6VDC" <carl.hixon@cox.net> wrote in message
>>>>news:bnkVe.8821$mH.8469@fed1read07...
>>>>
>>>>
>>>>>> And then, there are the morons and bigots:
>>>>>><http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btn
G=Search+News>
>>>>>
>>>>>I looked at the link and read a couple of the articles. I didn't see
>>>>>anything that warranted labelling them bigots. I don't think that the
>>>>>HOA took the proper position, but that doesn't make them bigots.
>>>>
>>>>
>>>>However it would seem to indicate that they lack humanitarianism.
>>>>
>>>>
>>>
>>>Judgments!!! Would it not be better to read the exact terms of the CC&R,
>>>AKA CONTRACT, before judgments are made??
>>>
>>>The exact wording of the HOA/CC&R may restrict certain activities [such
>>>as external antennas, or temporary housing, etc]. The restriction can
>>>only be waived by consent of the members of the HOA.
>>
>>
>>
>> That's just it! There ain't gonna BE any HOA's ,covenants, or busybody
>> neighbors telling me to do a durned thing unless they got enough rear end
>> on 'em to MAKE me! If today, somebody wanted to start an HOA in my
>> neighborhood, I'd tell them to kiss my (censored).
>>
>> I feel VERY strongly about property rights, and if I want to put up an
>> American flag, then I'll put up an American flag and I dare some

>> schweinhund to come over here and touch it! I DESPISE and detest HOA's!
>> :(
>>
>> Jerry
>
> Gerry, you said it correctly. Tell your agent "I will not consider, under
> any conditions, any HOAs or CC&Rs." If the RE attorney uncovers any
> 'hidden' CC&Rs in the title search, the sale is OFF!
>
> I live in the "Live Free or Die" state [New Hampshire]. When I bought here
> three years ago I made that point to our realtor. We bought a very nice
> single family home of 2100 square feet on a 1/2 acre only 21 years old, 6
> miles south of the state capital and 12 miles north of the third largest
> city.
>
> I checked town zoning requirements for a tower. I'm allowed 70 feet for
> the tower without requesting a variance. Also, if the tower is
> professionally installed I need not consult the town building inspector.
> Heights from 70 feet 1 inch to 200 feet require plan approval by the
> building inspector ONLY for safety issues. BTW: my tower is only 50 feet
> [I live on top of a 510 foot hill with height above average terrain of 250
> feet for 5 miles radius].
>
> But back to the original issue. The HOA may have a strict rule on
> temporary housing. It is a freely entered into contract condition that
> requires the consent of the contracting parties to amend.
>
> So, the term 'BIGOT' is a prejudicial pre judgment.
>

And in times of major emergencies if they are not willing to call for a vote
and temporarily set such aside, then I would consider them not only bigots
but cold hearted. HOAs can VOTE for such measures.

Dee D. Flint, N8UZE

508. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 22:29:46 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <upIVe.9968$Wd7.6725@newsread1.news.pas.earthlink.net>
Source record: 70705
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Dee Flint" <deeflint01@comcast.net> wrote

>
> Nothing stops them from calling an immediate emergency meeting to address
> temporarily suspending such limits in times of great need.
>

If a ham can only use their station "in times of great need" it's unlikely
they'd have the equipment to put into service, so it's all a moot point.

73, de Hans, K0HB

509. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 22:53:37 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <IYCdnY0CpqtSxLreRVn-sQ@comcast.com>
Source record: 70707
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"K�HB" <groupk0hb@earthlink.net> wrote in message
news:upIVe.9968$Wd7.6725@newsread1.news.pas.earthlink.net...
>
> "Dee Flint" <deeflint01@comcast.net> wrote
>
>>
>> Nothing stops them from calling an immediate emergency meeting to address
>> temporarily suspending such limits in times of great need.
>>
>
> If a ham can only use their station "in times of great need" it's unlikely
> they'd have the equipment to put into service, so it's all a moot point.
>
> 73, de Hans, K0HB
>

I was talking about temporarily taking in those left homeless and how it shows a lack of humanitarianism.

The equipment thing is an entirely separate issue that needs addressed one way or another as it cannot be left to the last minute as you point out.

Dee D. Flint, N8UZE

510. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 22:56:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg7leafvn1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70706

"Ham op" wrote
> Transmission line calculations are much easier than antenna
calculations.
>
==========

Antenna conductors ARE transmission lines and the same sort of
calculations apply.

Reg.

511. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 23:12:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126653287_28145@spool6-east.superfeed.net>
Source record: 70708

Harry wrote:
> I am a newbi in antennas.
>
> Here's my question:
>
> I know that a half-wave dipole in free space has
> a feed-point impedance of approximately 73 ohms.
>
> Can anyone tell me **exactly** how this number is calculated.

From "Antenna Theory" by Balanis:

Rr = 2*Prad/|Io^2| = 73 ohms (4-93)

Prad is found by integrating the Poynting Vector over a
certain radius. Io is the current maximum magnitude.

The ASCII limitation prevents much more than this.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

512. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 23:19:03 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <H7JVe.9645$4P5.9064@newsread2.news.pas.earthlink.net>
Source record: 70709
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Dee Flint" <deeflint01@comcast.net> wrote
>
> I was talking about temporarily taking in those left homeless and how it shows
> a lack of humanitarianism.
>

O I C.

I have no HOA restrictions, but if I did have some like that, then they'd just
be friends visiting for a few weeks.

73, de Hans, K0HB

513. Re: Hot Flashes

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 23:20:50 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126653809_28153@spool6-east.superfeed.net>
Source record: 70710

Henry wrote:

A funny jpeg but this is an ASCII only newsgroup.
It will probably be deleted by the usenet god.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

514. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 23:23:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126653984_28157@spool6-east.superfeed.net>
Source record: 70711

Harry wrote:
> Thank you for your valuable information. Is there any website or
> textbook that actually shows the step-by-step calculation of this magic
> number which has been quoted so often in the cable industry?

"Antenna Theory" by Balanis, second edition, Chapter 4.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

515. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-13 23:43:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126655181_28167@spool6-east.superfeed.net>
Source record: 70712

Reg Edwards wrote:
> Antenna conductors ARE transmission lines and the same sort of
> calculations apply.

You're right, Reg. Without reflections from the ends of a
dipole, the feedpoint impedance would be hundreds of ohms.
A standing wave antenna is like a lossy transmission line
where the loss is to radiation. And the SWR on a 1/2WL dipole
standing wave antenna is quite high - in the neighborhood of
20:1.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

516. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 00:41:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg7rkl$6t4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70714

It is equally correct to say that the radiation resistance of a dipole is 2*73 = 146 ohms, since this is the value when the radiation resistance is assumed to be uniformly distributed along its length as is the conductor resistance.

For calculating purposes the radiation and conductor resistances can simply be added together.

And when referred to the end of a dipole, at HF the radiation resistance is of the order of Q-squared * 73/2 = 3000 ohms. Although this is somewhat indeterminate because of the difficulty of feeding an isolated dipole at one end. The conductor diameter also plays a significant part.

Reg.

517. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 00:42:09 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4327720A.61F01CAB@earthlink.net>
Source record: 70713
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
Dee Flint wrote:
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:88WdnbrHqZgpkbreRVn-tg@comcast.com...
> > Jerry wrote:
> >
> >> "Ham op" <hamop@comcast.net> wrote in message
> >> news:0ICdncTJkPKeVrveRVn-vA@comcast.com...
> >>
> >>>Dee Flint wrote:
> >>>
> >>>>"Carl / W6VDC" <carl.hixon@cox.net> wrote in message
> >>>>news:bnkVe.8821$mH.8469@fed1read07...
> >>>>
> >>>>
> >>>>> And then, there are the morons and bigots:
> >>>>><http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&b
tnG=Search+News>
> >>>>>
> >>>>>I looked at the link and read a couple of the articles. I didn't see
> >>>>>anything that warranted labelling them bigots. I don't think that the
> >>>>>HOA took the proper position, but that doesn't make them bigots.
> >>>>
> >>>>
> >>>>However it would seem to indicate that they lack humanitarianism.
> >>>>
> >>>>
> >>>
> >>>Judgments!!! Would it not be better to read the exact terms of the CC&R,
> >>>AKA CONTRACT, before judgments are made??
> >>>
> >>>The exact wording of the HOA/CC&R may restrict certain activities [such
> >>>as external antennas, or temporary housing, etc]. The restriction can
> >>>only be waived by consent of the members of the HOA.
> >>
> >>
> >>
> >> That's just it! There ain't gonna BE any HOA's ,covenants, or busybody
> >> neighbors telling me to do a durned thing unless they got enough rear end
> >> on 'em to MAKE me! If today, somebody wanted to start an HOA in my
> >> neighborhood, I'd tell them to kiss my (censored).
> >>
```

> >> I feel VERY strongly about property rights, and if I want to put up an
> >> American flag, then I'll put up an American flag and I dare some
> >> schweinhund to come over here and touch it! I DESPISE and detest HOA's!
> >> :(
> >>
> >> Jerry
> >
> > Gerry, you said it correctly. Tell your agent "I will not consider, under
> > any conditions, any HOAs or CC&Rs." If the RE attorney uncovers any
> > 'hidden' CC&Rs in the title search, the sale is OFF!
> >
> > I live in the "Live Free or Die" state [New Hampshire]. When I bought here
> > three years ago I made that point to our realtor. We bought a very nice
> > single family home of 2100 square feet on a 1/2 acre only 21 years old, 6
> > miles south of the state capital and 12 miles north of the third largest
> > city.
> >
> > I checked town zoning requirements for a tower. I'm allowed 70 feet for
> > the tower without requesting a variance. Also, if the tower is
> > professionally installed I need not consult the town building inspector.
> > Heights from 70 feet 1 inch to 200 feet require plan approval by the
> > building inspector ONLY for safety issues. BTW: my tower is only 50 feet
> > [I live on top of a 510 foot hill with height above average terrain of 250
> > feet for 5 miles radius].
> >
> > But back to the original issue. The HOA may have a strict rule on
> > temporary housing. It is a freely entered into contract condition that
> > requires the consent of the contracting parties to amend.
> >
> > So, the term 'BIGOT' is a prejudicial pre judgment.
> >
>
> And in times of major emergencies if they are not willing to call for a vote
> and temporarily set such aside, then I would consider them not only bigots
> but cold hearted. HOAs can VOTE for such measures.
>
> Dee D. Flint, N8UZE

As someone who lives near Ocala and has to visit a lot of these gated communities run by HOAs, I find most of them to be jerks who are only interested in holding onto their perceived power at any cost. The fact that it hurts others doesn't matter to them. Another HOA in the area told a retired couple move out, or send their 17 year old grand daughter away after she lost both of her parents in an accident. She had a few months till she was to graduate from high school and no other relatives but it didn't matter to the HOA. People like that are scum, no matter how expensive their home, or what they drive.

Its just too damn bad you can't tar and feather them and then run them out of town, like the good old days! ;-)

--
?

Michael A. Terrell
Central Florida

518. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 00:47:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iesohk2gnkf80@corp.supernews.com>
Source record: 70715

Just about any antenna textbook will show you the calculation of a half wavelength, infinitely thin dipole in free space. For that special case, the answer ends up being simply 30 * Cin(2 * pi), where Cin is a modification of the cosine integral Ci[*]. That's where the "magic number" comes from. Kraus' _Antennas_ is just one of the many textbooks which give the derivation for this. It takes about 3 pages and 23 equations for Kraus to derive.

One assumption made in calculation of this value is that the current distribution is sinusoidal, an assumption that's true only for an infinitely thin antenna. For finite thickness wire, the calculation becomes much more difficult. The radiation resistance changes only slowly with wire diameter, however, so sinusoidal distribution is a reasonably good approximation provided that the antenna is thin. Feedpoint reactance, though, varies much more dramatically with both antenna length and diameter. Calculating its value exactly requires solution of a triple integral equation which can't be solved in closed form. That's why computer programs are used to solve it numerically.

To include the effect of ground, you need to calculate the mutual impedance between the antenna and its "image". If the antenna is about 0.2 wavelength above ground or higher (for a half wave antenna -- the height must be greater if the antenna is longer), you can assume that the ground is perfect and get a pretty good result. Below that height, the calculation again becomes much more complicated because the quality of the ground becomes a factor. If you're interested in the numerical methods used, locate the NEC-2 manual (available on the web), which describes it.

If you're satisfied with approximate results, the work by S.I. Shelkunoff provides formulas for free-space input impedance of antennas with finite diameter wire which can be solved with a programmable calculator or computer. They're detailed in "Theory of Antennas of Arbitrary Size and Shape", in Sept. 1941 Proceedings of the I.R.E. The formulas for R and X contain many terms involving sine and cosine integrals, which can be approximated with numerical series. You'll find additional information in his book _Advanced Antenna Theory_. For approximate calculations of mutual impedance of thin linear antennas, see "Coupled Antennas" by C.T. Tai, in April 1948 Proceedings of the I.R.E. Those also involve multiple terms of sine and cosine integrals.

Before numerical calculations became possible, many very good mathematicians and engineers devised a number of approximation methods of varying complexity and accuracy. You'll find their works in various journals primarily in the 1940s - 1960s.

The complexity and difficulty of the problem is why virtually all antenna calculations are done today with computers, using numerical methods such as the moment method.

In summary, here are your choices:

1. You can calculate the approximate radiation resistance but not reactance of a thin, free-space antenna by assuming a sinusoidal current distribution and using the method Reg described. To include the effect of ground, you have to calculate or look up from a table the mutual impedance between the antenna and its "image", and modify the feedpoint impedance accordingly by applying the mesh equations for two coupled antennas. This method of including the effect of ground becomes inaccurate below around 0.2 wavelength, if the antenna is over typical earth.

2. You can use various approximation methods to calculate reactance, and resistance with better accuracy. But for the effect of ground, you're still limited to being greater than about 0.2 wavelength high.

3. To accurately include the effect of real ground with low antennas, and/or to get resistance and reactance values with arbitrarily good accuracy requires numerical methods. A computer program is the only practical way to do this. A very good basic description of the moment method can be found in the second and later editions of Kraus' _Antennas_.

[*] Cin(x) = ln(gamma * x) - Ci(x), where gamma = Euler's constant, 0.577. . . Ci(x) = the integral from -infinity to x of [cos(v)/v dv] = ln(gamma * x) - (x^2)/(2!2) + (x^4)/(4!4) - (x^6)/(6!6). . .

Roy Lewallen, W7EL

Harry wrote:
> Hi Tim and Reg,
>
> Thank you for your valuable information. Is there any website or
> textbook that actually shows the step-by-step calculation of this magic
> number which has been quoted so often in the cable industry?
>
> You know most video cables and connectors have characteristic
> impedance, 75 Ohms.
>
> I am not afraid of math. I just like to understand the details of its
> derivation.
>
> -- Harry
>

519. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 00:49:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg7s3g$80m$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70716

"Cecil Moore" wrote
> Prad is found by integrating the Poynting Vector over a
> certain radius.

==========

Cec, what's the Poynting Vector?

Reg.

520. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 00:51:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iet0fapmh7pd2@corp.supernews.com>
Source record: 70717

dansawyeror wrote:
> All,
>
> Thank you for your help to get the basic model in place. It seems to be
> working except that ground resistance does not appear to be modeled.
> This may be an oversimplification my part in how the source is defined
> or connected. It is a simple source connected to the first, lower,
> segment. The end of that segment is also connected to a radial system of
> 8 quite short radials. I would expect to see the feedpoint impedance
> reflect the ground system. However, it seems to reflect the vertical
> element only. That value is very close to a theoretical loaded element
> over a perfect ground. This ground is a medium ground so it should have
> some visible effect.
>
> Is it obvious what am I doing wrong?

It sounds like you're using a MININEC-type ground, which isn't
appropriate for this application. Be sure to read the manual sections
involving ground modeling.

Roy Lewallen, W7EL

521. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 00:53:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iet3vqf6q5mf8@corp.supernews.com>
Source record: 70718

dansawyeror wrote:
>
> On the SWR scan is there a way to print or plot the step outputs? I am
> trying to determine the resonance point.

The SWR scan automatically produces a plot. To print, click File, then
Print in the SWR display window.

Roy Lewallen, W7EL

522. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 00:54:52 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <xn0e77aaf2tt5l000@cnews.newsguy.com>
Source record: 70719

Reg Edwards wrote:

> There's no such value as 'exact'.
~~~~~~

Nonsense. I have exactly two pencils in my pencil holder. :-)

73, Bill W6WRT
~~~~~~

523. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 01:25:25 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <6pakv2-ti9.ln1@p400bob.personal.cox.net>
Source record: 70722
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

One of the tricks I learnt early on with RTV sealant in medical ultrasound water tanks is if you wet the surfaces with water and a detergent wetting agent the sealant wont actually adhere to the prewetted surface. Kind of handy if you wanted to force the sealant into a clearance slot and remove it later.

Or was it oil? Damn I cant remember! I know kerosene is used to pre the surface for better adhesion...

How about paper/masking tape over the gaps and spraying with that gluggy sealant you use on sink drains?

Probably not very useful thoughts, sorry!

Cheers Bob W5/VK2YQA

Dan/W4NTI wrote:

>
> Maybe ... get some axle grease, or RTV sealant would be better, perhaps.
> Both should peal off reasonable well.
>
> One other thing I am concerned with tho. I always heard that the rotar
> must be kept in a vertical position or the grease would drain out of the
> bearings? Wives tale ??? I don't know. But I always keep mine vertical
> when stored.
>
> Dan/W4NTI
>
>

524. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 01:29:31 UTC
From: richardharrison@webtv.net
Message-ID: <3627-43277CFB-102@storefull-3253.bay.webtv.net>
Source record: 70720

Bill Turner wrote:
"Without more information, this comparison is flawed."

I agree the information was incomplete. I dfid not reproduce the whole article. The fault was mine, not Phil`s. A low dipole has a high radiation angle. For comparison, Phil was working Airstream net stations in New York, New Jersey, Maryland, Pennsylvania, Ohio, and New England. Phil was located in Ontario near Buffalo, New York when he collected his data. His in-laws lived there. Phil`s home QTH at the time was the highest spot in Western Connecticut, with a line-of-sight path to New York City. Phil had surrounded his mountain top with rhombic antennas pointed toward his likely targets. Amateurs answered when he called.

In the Airstream net, most of the contacts were made Sundays on 3963 kHz at 8 am local time. Sky wave was mostly near vertical incidence. The low dipole was good for the job. Not too directional and a lot of radiation nearly straight up. Phil noted that several times when he switched to to the mobile whip, he could not be heard through the QRM.

The numbers Phil put in Table 3 are only true under the conditions prevailing when he made the checks.

Best regards, Richard Harrison, KB5WZI

525. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 01:40:18 UTC
From: Marshall Goldblatt <w4emb@myacc.net>
Message-ID: <3opd8pF71npnU1@individual.net>
Source record: 70721
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

Dan/W4NTI wrote:
> "Marshall Goldblatt" <w4emb@myacc.net> wrote in message
> news:3op5feF73ibjU1@individual.net...
>
>>Hello all,
>>
>>I have a Tailtwister (TX-2) rotor mounted on a Rohn 25 foldover tower.
>>While the tower itself appears to have survived intact, hurricane
>>Katrina snapped the mast and destroyed the antennas. I need to fold the
>>tower over to work in it, and likely leave it folded over for a fairly
>>extended period. This will leave the top of the tower and the rotor
>>upside down. Unfortunately, it is still the rainy season here, and the
>>last time I needed to do this, rain water got into the rotor and settled
>>in the bell, causing rust and other corrosion damage inside the rotor,
>>because it is only weather protected when it is upright. I would like
>>to seal the rotor to prevent this from happening again, but none of the
>>ideas I've had so far (wrapping it in plastic garbage bags, using duct
>>tape, using sealing foam) are usable, either because they don't seal
>>well enough to keep water out or because stuff may get up inside the
>>rotor where I can't get it out.
>>
>>So, does anyone have any suggestions?
>>
>>73, Marshall - W4EMB
>>
>>
>
>
> Maybe ... get some axle grease, or RTV sealant would be better, perhaps.
> Both should peal off reasonable well.
>
> One other thing I am concerned with tho. I always heard that the rotar
> must be kept in a vertical position or the grease would drain out of the
> bearings? Wives tale ??? I don't know. But I always keep mine vertical
> when stored.

Don't know about that, but there's no way to keep the rotor vertical
when lowering a foldover tower... In any case, it's been folded over
(for long periods) many times, and I've never noticed a bearing problem.

526. Re: Balanced from unbalanced via a 100 ohm Q section

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 02:05:50 UTC
From: Roger Leone <raleoneTAKEOUT@sbcglobal.net>
Message-ID: <2ALVe.715$Jm.384@newssvr27.news.prodigy.net>
Source record: 70723

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:g46jv2-ib6.ln1@p400bob.personal.cox.net...
> Hi Roger
>
> Might get around to it today! (Being unemployed is sometimes fun..)
>

Bob:

If your 100 ohm Q section doesn't work out as expected, I have lots of RG-71 (93 ohm) coax that might be worth trying. Let me know if you are interested.

73,

Roger

527. Re: Corrosion on aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 02:06:54 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11if1e3fd2r81cc@corp.supernews.com>
Source record: 70724

> Is tin worm like ... Bronze Bitch Borers?

I've met a few of them in my time...

Jim

528. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 02:11:13 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <it0fi1pefd12vvs58pqufskqf99pfnoq07@4ax.com>
Source record: 70725

On 13 Sep 2005 16:15:08 GMT, "Bill Turner" <noway@nohow.com> wrote:

>Richard Harrison wrote:
>
>> Phil found a simple dipole only a few feet above ground would
>> outperform a mobile whip on 40 or 75 meters.
>~~~~~~
>
>Without more information, this comparison is flawed. A mobile whip has
>a lower angle of radiation than a horizontal dipole. On 40 or 75, the
>vertical component of radiation can be quite significant for close-in
>stations (100 miles or so). At night, working long distances, the whip
>may outperform the dipole. During the day, the dipole will probably
>outperform the whip.
>
>It all depends.
>73, Bill W6WRT

Correct on radiation angle, however the average mobile whip at 3.8mhz
is around 10% efficient. Even at 7Mhz it doesn't improve much
efficientcy wise. The low dipole (low being less than .25WL) is
close or better than 95% efficient but has a rotten radiation angle
for DX however close in it will be very good.

Myself in that situation.. I'd put a poles at either end of the
trailer (thats 50ft length) and if possible get it up 30ft or better
and hang a dipole. If the antenna is 66' (40m) the excess length
can hang. The support poles can be anything that will stay up. At
20m 30ft is 1/2WL up and will be decent. Even if you can't do two
support poles and only one make that one high as possible and mount
a dipole as a sloper. It will be somewhat directional but performace
will be far better than any ground mounted vertical that has no ground
plane.

If money wasn't a limiting factor. put down a base and put up a
freestanding tower.

The rules remain. More metal, higher the better.

Allison
KB1GMX

529. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 02:31:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126665270_28245@spool6-east.superfeed.net>
Source record: 70626
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael A. Terrell wrote:
> Its just too damn bad you can't tar and feather them and then run
> them out of town, like the good old days! ;-)

Seems to me a large percentage of the blame lies with the
buyers who readily agree to such irrational HOA terms and
then complain about them later.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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530. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 02:45:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126666107_28257@spool6-east.superfeed.net>
Source record: 70627

Reg Edwards wrote:

> "Cecil Moore" wrote
>
>>Prad is found by integrating the Poynting Vector over a
>>certain radius.
>
> Cec, what's the Poynting Vector?

Same thing as a power flow vector. The dimensions are
energy per second per unit area. If the power flow vector
is integrated over the entire surface of a sphere of radius
r, the result is total radiated power. I thought maybe you
and Mr. Poynting might have worked together at some time in
the 20th century. :-)

> Poynting, John Henry (1852-1914)
> English physicist, mathematician, and inventor. He devised
> an equation by which the rate of flow of electromagnetic energy
> (now called the Poynting vector) can be determined.

http://www.cartage.org.lb/en/themes/Biographies/MainBiographies/P/Poynting/1.html
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

531. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 03:31:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dg85ic$91m$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70628

"Reg Edwards" wrote
> It is equally correct to say that the radiation resistance of a
dipole
> is 2*73 = 146 ohms, since this is the value when the radiation
> resistance is assumed to be uniformly distributed along its length
as
> is the conductor resistance.
>
> For calculating purposes the radiation and conductor resistances can
> simply be added together.
==========

Hints and tips -

By the same arithmetical reasoning -

The centre feedpoint input resistance of a 1/2-wave dipole is 73 ohms
plus HALF of the conductor end-to-end HF resistance, which to be
precise sometimes matters. This is exact insofar as 73 is exact - not
an approximation.

The HF resistance of a copper wire at 20 degrees C is -

Rhf = Sqrt(F) / 12 / d ohms per metre,

Where F is the frequency in MHz and d is the wire diameter in
millimetres.

For example, the end-to-end loss resistance of a 1/2-wave dipole at
1.9 MHz using 16-gauge copper wire is 7.07 ohms, which increases the
feedpoint resistance to 73 + 3.53 = 76.53 ohms, to give a radiating
efficiency of 95.4 percent. Some people would consider that's enough
to lose a contest!

Why not start a little notebook to record useful, simple, little
formulae such as above which don't appear in Terman et al? Or if they
do appear then you can never find the right page in the right volume.

Reg.

532. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 03:41:53 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1126669313.757400.39290@f14g2000cwb.googlegroups.com>
Source record: 70629

Hi Cecil,

> From "Antenna Theory" by Balanis:

> Rr = 2*Prad/|Io^2| = 73 ohms (4-93)

I got Balanis' book and found the above formula.
Thanks a lot! (Tom also mentioned the same book.)

4-94 (I have the 1982 edition) is from formula 4-70.
The math is OK to me. I happen to have a PH.D. degree in math.

-- Harry

533. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 03:43:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11if72vgu1uln04@corp.supernews.com>
Source record: 70630

An antenna doesn't have a single "radiation angle". It radiates at all angles. The relevant question is how much does it radiate at the particular angle of interest, not at which angle does it radiate the most. An antenna which radiates its maximum at a high angle might well radiate more at a low angle than an antenna with a lower angle of maximum radiation.

Roy Lewallen, W7EL

nospam@nouce.bellatlantic.net wrote:
> On 13 Sep 2005 16:15:08 GMT, "Bill Turner" <noway@nohow.com> wrote:
>>
>>Without more information, this comparison is flawed. A mobile whip has
>>a lower angle of radiation than a horizontal dipole. . .
>
> Correct on radiation angle . . .

534. Yet another grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 03:49:27 UTC
From: Joel <Joel@cyberbest.com>
Message-ID: <e704c$43279dcb$943f9237$553@STARBAND.NET>
Source record: 70631

After almost 50 years banging around Ham Radio I finely have my tower up.. I have each leg of the tower grounded with 2 inch copper strapping , each to their own ground rod.Those ground rods are all connected together and run off to another ground rod I will use that as a common ground. All the coax that come into the house goes to a outside 5x5 box that has poliphaseres installed in it. The box is brass lined and the brass is lapped to another 2 inch copper strap that goes to the common ground. The station ground is separate until it gets to the common ground.. With all this said,I have a questions..
- I 'should' have the power entrance ground run over to the common ground. But it's over 90 feet away and the house has plastic water pipes.. Does it make sense to run a copper wire or strap that far? If so, should it be berried all the way or run exposed. It seems to me the impedance would be so high in the run, that it would be a waste of copper?

TNX
Joe AG4QC

535. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 03:55:59 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1126670159.827784.237990@g47g2000cwa.googlegroups.com>
Source record: 70632

Hi Roy,

Thanks for all the valuable information. Are you a professor?

You may want to write a book titled "Story of the 73 Ohms".

-- Harry

536. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 03:59:43 UTC
From: eternalsquire@comcast.net
Message-ID: <1126670383.884527.133320@f14g2000cwb.googlegroups.com>
Source record: 70633

Money and space are actually limiting factors, but at least CC&R's arent! My wife and I have been discussing this, and she really doesn't like the idea of something 30 to 40 feet high on a small lot.

Her interest actually is gardening and we had been discussing containing an area of decent topsoil within a square formed by railroad ties. She has no objection to 20 to 25 foot high metal poles on the corners of a square 20 to 25 foot on the side... which turns out to be the core geometry of a 20 meter 4-square broadside phase array.

I would lay the poles first in concrete reinforced holes, connect the feed network and radials on the dirt, and lay feed line underground from the array to just near the trailer. Then I would lay the railroad ties along the square, and then fill the square with topsoil.

Additional radials would need to be buried under a couple inches of red clay fanning out from the square.

Variations:
1) could I create trap verticals from the poles for 20, 17, 15, and 10 meters, or do I need inscribed squares of seperate verticals because seperate phased feeds might be needed for these other bands?
2) could I simply operate the square outside of 20 meters with a tuner for local operation?

I think because space, money, and aesthetics are limiting factors, I need to use precision to my advantage rather than size or height, and a 4 square may help there.

Comments?

The Eternal Squire

537. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 04:00:40 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4327A068.6060106@comcast.net>
Source record: 70634

Roy,

Thanks, I did and I have tried all the combinations.

I would suspect that 'free space' would show a mis match for 'short radials'. It does not. Simulations of free space dipoles seem accurate. Am I missing something?

I also tried to simulate several values of real earth. None of them produced high input impedance values. What ground values represent suburban clay?

Thanks again,
Dan

Roy Lewallen wrote:
> dansawyeror wrote:
>
>> All,
>>
>> Thank you for your help to get the basic model in place. It seems to
>> be working except that ground resistance does not appear to be
>> modeled. This may be an oversimplification my part in how the source
>> is defined or connected. It is a simple source connected to the first,
>> lower, segment. The end of that segment is also connected to a radial
>> system of 8 quite short radials. I would expect to see the feedpoint
>> impedance reflect the ground system. However, it seems to reflect the
>> vertical element only. That value is very close to a theoretical
>> loaded element over a perfect ground. This ground is a medium ground
>> so it should have some visible effect.
>>
>> Is it obvious what am I doing wrong?
>
>
> It sounds like you're using a MININEC-type ground, which isn't
> appropriate for this application. Be sure to read the manual sections
> involving ground modeling.
>
> Roy Lewallen, W7EL

538. Re: Yet another grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 05:27:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lgcfi19n4p2juodvd6js50pg3uri2dn6sh@4ax.com>
Source record: 70635

On Tue, 13 Sep 2005 22:49:27 -0500, "Joel" <Joel@cyberbest.com> wrote:

> I 'should' have the power entrance ground run over to the common ground.

Hi Joe,

Yes, you 'should,' but only if you find life worth living.

>But it's over 90 feet away and the house has plastic water pipes.. Does it
>make sense to run a copper wire or strap that far?

The 'should' of you 'should' is a requirement of code that is in place
to save your life. It is not there because it has to make sense as an
RF ground lead.

>If so, should it be
>berried all the way or run exposed. It seems to me the impedance would be so
>high in the run, that it would be a waste of copper?

Buried wire will provide an excellent safety ground, but it cannot be
the only safety ground (again code dominates the implementation). And
again, impedance is immaterial to the discussion. If you want an
excellent RF ground, you lay radials, but you connect that ground to
the safety ground for other reasons.

One reason is a mighty big charge called lightning.

Another reason is ground differentials (which occur naturally with
sometimes lethal differences for normal weather, and in great
potential differences with lightning).

If you had two regions separately grounded, and their only
interconnect was a length of coax cable between them, the common being
on the shield, AND if there were a potential difference between the
sites (or a considerable current shunt presented by the coax); then
the first time you pulled the connection on that link you might get
electrocuted. If you want to be a system fuse, what you be rated for?

73's
Richard Clark, KB7QHC

539. loop inductance calculation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 05:42:03 UTC
From: TRABEM <>
Message-ID: <6odfi1l8k7bnerl8fucbbbdg17c3mtqg11@4ax.com>
Source record: 70636

What's the approximate inductance for a single turn square loop, 10 feet per side in free space (if that matters)? There should be an easy way to calculate this, maybe there is, but I'm not aware of it.

Thanks

T

540. Re: loop inductance calculation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:01:17 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <u4ffi1tulqsbsl81lo1m0a179e7k2dokit@4ax.com>
Source record: 70637

On Wed, 14 Sep 2005 01:42:03 -0400, TRABEM <> wrote:

>What's the approximate inductance for a single turn square loop, 10
>feet per side in free space (if that matters)? There should be an easy
>way to calculate this, maybe there is, but I'm not aware of it.
>

http://www.technick.net/public/code/cp_dpage.php?aiocp_dp=util_inductance_square

--

541. Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:21:54 UTC
From: David <groups@orbitcoms.com>
Message-ID: <6kPVe.45149$FA3.38745@news-server.bigpond.net.au>
Source record: 70638

Does anyone know of where I could find an example of a homebrew open stub fed j antenna. I want to construct a unit for 915 MHz using SMA plug and coaxial cable.

Thanks in advance

542. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:36:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ifh7o30m2sfca@corp.supernews.com>
Source record: 70639

Harry wrote:
> Hi Roy,
>
> Thanks for all the valuable information. Are you a professor?

Not by a long shot. I'm way too poor a student to ever be considered for
a job as a teacher.

> You may want to write a book titled "Story of the 73 Ohms".

It's already been written, by many people who know a great deal more than I.

Roy Lewallen, W7EL

543. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:41:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ifhg8s81ven91@corp.supernews.com>
Source record: 70640

dansawyeror wrote:
> Roy,
>
> Thanks, I did and I have tried all the combinations.
>
> I would suspect that 'free space' would show a mis match for 'short
> radials'. It does not. Simulations of free space dipoles seem accurate.
> Am I missing something?

You'll need to send me the model description (.EZ file) so I can see what you've got. Attach it to an email to me.

> I also tried to simulate several values of real earth. None of them
> produced high input impedance values. What ground values represent
> suburban clay?

We have clay here, and by comparing a dipole and vertical at various times of year, I've estimated that the soil is about equivalent to EZNEC's "poor" quality ground in the summer when it's bone dry and "very good" ground in the winter when soaking wet. It's an approximation at best, though.

Roy Lewallen, W7EL

544. Re: loop inductance calculation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:44:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ifhmngeb6au21@corp.supernews.com>
Source record: 70641

The free demo version of EZNEC (http://eznec.com) will tell you. Choose a low frequency where the loop is electrically very small. Put a source anywhere in the loop and look at the Source Data. It'll give you the reactance which you can convert to inductance at the frequency you chose. The inductance should stay fairly constant with frequency as long as the frequency is low enough that the loop circumference is a very small part of a wavelength.

Roy Lewallen, W7EL

TRABEM wrote:
> What's the approximate inductance for a single turn square loop, 10
> feet per side in free space (if that matters)? There should be an easy
> way to calculate this, maybe there is, but I'm not aware of it.
>
> Thanks
>
> T

545. Re: loop inductance calculation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:45:37 UTC
From: TRABEM <>
Message-ID: <akhfi11tem9ujj5gqp0ahe23la53eij17s@4ax.com>
Source record: 70642

On Wed, 14 Sep 2005 06:01:17 GMT, Owen Duffy <owen@no.where> wrote:

>On Wed, 14 Sep 2005 01:42:03 -0400, TRABEM <> wrote:
>
>>What's the approximate inductance for a single turn square loop, 10
>>feet per side in free space (if that matters)? There should be an easy
>>way to calculate this, maybe there is, but I'm not aware of it.
>>
>
>http://www.technick.net/public/code/cp_dpage.php?aiocp_dp=util_inductance_square

What's the relative permeability of air??

They give this statement on the help page, but I don't understand what
it means.

Note: ï¿½0 = 4ï¿½ï¿½10-7 [Hm-1] (Absolute Permeability)

Thanks,

T

546. Re: loop inductance calculation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:55:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ifibocus6c2e1@corp.supernews.com>
Source record: 70643

TRABEM wrote:
>
> What's the relative permeability of air??

"Relative permeability" is the permeability relative to that of free space. The relative permeability of any non-magnetic material, including air, is 1.

>
> They give this statement on the help page, but I don't understand what
> it means.
>
> Note: ï¿½0 = 4ï¿½ï¿½10-7 [Hm-1] (Absolute Permeability)

The permeability of free space (ï¿½0) is 4 * pi * 10^-7 webers/amp-m (MKSA units). The permeability (ï¿½) of anything is its relative permeability (ï¿½r) times ï¿½0.

Roy Lewallen, W7EL

547. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 06:57:14 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <BzKIhRDKn8JDFAtd@ifwtech.co.uk>
Source record: 70644

Harry wrote:
>Hi Cecil,
>
>> From "Antenna Theory" by Balanis:
>
>> Rr = 2*Prad/|Io^2| = 73 ohms (4-93)
>
>I got Balanis' book and found the above formula.
>Thanks a lot! (Tom also mentioned the same book.)
>
>4-94 (I have the 1982 edition) is from formula 4-70.
>The math is OK to me. I happen to have a PH.D. degree in math.

For your "passing-out" test, calculate the radiation pattern of a two-radial groundplane antenna directly from Maxwell's equations (including the two small cross-polarized lobes that nobody else mentions), using pencil and paper only, in a pub.

I've seen it done by a math professor from W6. (Nah... it must have been a party trick... he must have rehearsed that a million times... mustn't he?)

When he'd finished, Charlie sat back, smiled asked for comments. The rest of us passed out.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

548. Re: loop inductance calculation?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 07:20:45 UTC
From: TRABEM <>
Message-ID: <2hjfi1hvts8upck6fudakuou80jjl2trsc@4ax.com>
Source record: 70645

I got it!!!!!! Did a google search and was able to figure out the
meaning.

Turns out the inductance of a square, rectange of triangle is almost
teh same as long as the circumfernce, and wire diameter are constant.

Very interesting.

For 12 meters of .01 meter diameter wire, the inductance ranges from
13.7 to 14.0 uh regardless of the shape.

Thanks so much. It's just what I needed, the calculator is handy, I've
bookmarked it.

Regards,

T

On Wed, 14 Sep 2005 02:45:37 -0400, TRABEM <> wrote:

>On Wed, 14 Sep 2005 06:01:17 GMT, Owen Duffy <owen@no.where> wrote:
>
>>On Wed, 14 Sep 2005 01:42:03 -0400, TRABEM <> wrote:
>>
>>>What's the approximate inductance for a single turn square loop, 10
>>>feet per side in free space (if that matters)? There should be an easy
>>>way to calculate this, maybe there is, but I'm not aware of it.
>>>
>>
>>http://www.technick.net/public/code/cp_dpage.php?aiocp_dp=util_inductance_square
>
>What's the relative permeability of air??
>
>They give this statement on the help page, but I don't understand what
>it means.
>
>Note: ï¿½0 = 4ï¿½ï¿½10-7 [Hm-1] (Absolute Permeability)
>
>Thanks,
>
>T

549. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 11:22:42 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <bqCdnXTSdt2qlLXeRVn-jw@comcast.com>
Source record: 70646

Roy, if he reads the impedance value he can determine resonance by the absence of the reactive term.

Do you agree that the SWR scan is a poor method of determining resonance?

Roy Lewallen wrote:
> dansawyeror wrote:
>
>>
>> On the SWR scan is there a way to print or plot the step outputs? I am
>> trying to determine the resonance point.
>
>
> The SWR scan automatically produces a plot. To print, click File, then
> Print in the SWR display window.
>
> Roy Lewallen, W7EL

550. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 12:00:22 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <gv3gi1l1rf9al0is6l0fi3qcsd67psvu6d@4ax.com>
Source record: 70647

On Tue, 13 Sep 2005 20:43:23 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>An antenna doesn't have a single "radiation angle". It radiates at all
>angles. The relevant question is how much does it radiate at the
>particular angle of interest, not at which angle does it radiate the
>most. An antenna which radiates its maximum at a high angle might well
>radiate more at a low angle than an antenna with a lower angle of
>maximum radiation.
>
>Roy Lewallen, W7EL

Hello Roy,

I do understand that. I also understand when you say radiation angle
your talking about the primary or dominent lobe(s). There may be
many other lobes at useful or less than useful angles present as well.

However, how does that relate to using a shortend antenna with maybe
10% radiation efficientcy to a dipole at a reasonably attainable
height?

Allison
KB1GMX

>
>nospam@nouce.bellatlantic.net wrote:
>> On 13 Sep 2005 16:15:08 GMT, "Bill Turner" <noway@nohow.com> wrote:
>>>
>>>Without more information, this comparison is flawed. A mobile whip has
>>>a lower angle of radiation than a horizontal dipole. . .
>>
>> Correct on radiation angle . . .

551. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 14:07:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126707001_31799@spool6-east.superfeed.net>
Source record: 70648

David wrote:
> Does anyone know of where I could find an example of a homebrew open stub
> fed j antenna. I want to construct a unit for 915 MHz using SMA plug and
> coaxial cable.

An open stub J-pole is the same as a Zepp. 1/2WL element
end fed by 1/4WL balanced series section. The coax connects
to the end of the series section. Arrow Antenna makes one
for 2m. Plans are available that could possibly be scaled
to 915 MHz.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

552. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 14:22:19 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43283245_3@newsfeed.slurp.net>
Source record: 70649

"Harry" wrote about Roy Lewallen:
> You may want to write a book titled "Story of the 73 Ohms".

It should include the point that the 73 ohm radiation resistance value applies to a physical 1/2-wave, thin-wire, linear dipole in free space, and that a reactance term of + j42.5 ohms also applies to such a configuration (Kraus 3rd Edition, p. 182).

The dipole length needs to be shorted by a few percent in order to zero out the reactance term, at which time the resistance term will be about 65 ohms.

RF

553. WTB: 40' self supporting tower in Dallas area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 15:02:02 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <IXWVe.1709$Q71.569@fe02.lga>
Source record: 70650

I'm looking for a 40' tower in the Dallas area. Rohn 25 or Universal OK. I'd prefer that the tower is down. If rotor / and or beam available will consider.

73s

Dave - W5GT
w5gt@arrl.net

554. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 15:35:43 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <xn0e78a5u2wg45000@cnews.newsguy.com>
Source record: 70652

Roy Lewallen wrote:

>
> An antenna doesn't have a single "radiation angle". It radiates at
> all angles. The relevant question is how much does it radiate at the
> particular angle of interest, not at which angle does it radiate the
> most.
~~~~~~

That's true, except few if any hams have a specific "angle of interest", since different angles are used at different times. For most of us, the angle of maximum radiation gives a general indication of how the antenna will perform. A better indication would be a graphical representation. It's always a problem when one tries to reduce a complex situation like this down to a single number.

73, Bill W6WRT
~~~~~~

555. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 15:44:33 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <j0hgi19keaaffeh5flh9e776b3ukdgro3v@4ax.com>
Source record: 70651

On 13 Sep 2005 20:59:43 -0700, eternalsquire@comcast.net wrote:

>Money and space are actually limiting factors, but at least CC&R's
>arent! My wife and I have been discussing this, and she really
>doesn't like the idea of something 30 to 40 feet high on a small lot.
>
...excerpted...
>
>I think because space, money, and aesthetics are limiting factors, I
>need to use precision to my advantage rather than size or height, and a
>4 square may help there.
>
>Comments?
>
>The Eternal Squire

Any reason you're not considering a 20 meter dipole, fed with
ladderline to a tuner, for 20 thru 10 meters? Put it 25 feet high, and
it's nearly or more than a half wave high on all bands.

bob
k5qwg

556. Re: Help required to identify antenna type

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 16:01:23 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <nPXVe.24761$8h6.1223@trnddc09>
Source record: 70653

> "David" <groups@orbitcoms.com> wrote in message
> news:v5zVe.42161$FA3.13896@news-server.bigpond.net.au...
>
>>Hi,
>>
>>I have a Whip antenna that is supposed to give 3dB "gain" at 915MHz.
>>After pulling the unit apart and studying the construction, I am not sure
>>what style of antenna this is.
>>
>>The antenna consists of an SMA plug that has RF178 cable soldered to
>>centre pin and
>>it appears earth braid is connected to ground side of plug.
>>
>>The cable goes up the inside of 1 6mm Nylon tube for 40mm and then
>>exits the tube and winds around 4.5T. It then enters the tube
>>again and runs another 80mm. At this point the earth braid is stripped
>>leaving only the centre conductor and dielectric to continue another 70mm
>>to the top of the Radome (Nylon tube).
>>
>>I understand the construction of 5/8 antenna but I would not expect the
>>braid to be earthed.
>>
>>Thanks in advance for any help.
>>
>>Regards
>>
>>David
>

Paul P wrote:
> Could you post pictures on the binaries or email them to me please? I would
> like to see this.
>
> Thanks in advance,
> Paul.
>
> p.pinyot [at] worldnet [dot] att [dot] net
>

Hi, Paul -

If you have the 2004 ARRL Handbook, the antenna is described on page 20.17
as a resonant feed-line dipole. The figure on that page shows its construction.

If you do not have the handbook, I can scan the page and send it to you.

Regards,
John

557. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 16:17:29 UTC
From: nm5k@wt.net
Message-ID: <1126714649.900561.325630@g43g2000cwa.googlegroups.com>
Source record: 70654

However, how does that relate to using a shortend antenna with maybe
10% radiation efficientcy to a dipole at a reasonably attainable
height?

Well....Exactly as he described.
> An antenna which radiates its maximum at a high angle might well
>radiate more at a low angle than an antenna with a lower angle of
>maximum radiation.

The thing is "might".... My mobile antenna on 40m is *much* less
efficient than my dipole at 40 ft. But...It still is the best to longer
hauls over about 800 miles, and to dx. In it's case, it does radiate
more at the lower angles I'm using at that time, vs the dipole.
With some lesser mobiles, "mine is fairly stout", this might not be
the case. The best antenna should always be decided to fit the
usual paths to be used. In the case of my mobile vs the dipole, it's
possible that if the dipole were raised another 1/4 wave higher, it
could match the mobile at those lower angles.
At home, I often ran a dipole at 40 ft vs a full size ground plane at
the same height. Both were pretty efficient. Efficiency comparisons
were fairly useless as to actual performance. What really decides
which is best at a given time, is the path, and angles to be used.
Now, if you compare two same length low dipoles, both to NVIS, both
shooting straight up, and one is less lossy than the other as far as
feeding method, etc, then yes, efficiency will decide which one is
best.
MK

558. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 16:23:39 UTC
From: nm5k@wt.net
Message-ID: <1126715019.030393.275490@o13g2000cwo.googlegroups.com>
Source record: 70655

A better indication would be a
graphical representation.

The EZNEC demo does that well. There is a little green ball
that you can grab with your mouse, and place it at any angle
you wanna check. Makes it quite easy to see, or compare
various angles. MK

559. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 16:45:26 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <ZqYVe.7932$XZ1.5794@bignews5.bellsouth.net>
Source record: 70656
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Michael A. Terrell" <mike.terrell@earthlink.net> wrote in message
news:4327720A.61F01CAB@earthlink.net...

>
>
> As someone who lives near Ocala and has to visit a lot of these gated
> communities run by HOAs, I find most of them to be jerks who are only
> interested in holding onto their perceived power at any cost. The fact
> that it hurts others doesn't matter to them. Another HOA in the area
> told a retired couple move out, or send their 17 year old grand daughter
> away after she lost both of her parents in an accident. She had a few
> months till she was to graduate from high school and no other relatives
> but it didn't matter to the HOA. People like that are scum, no matter
> how expensive their home, or what they drive.
>
> Its just too damn bad you can't tar and feather them and then run
> them out of town, like the good old days! ;-)
>
> --
> ?
>
> Michael A. Terrell
> Central Florida

I am actually quite peaceable and believe in living and letting live in most
cases. Who I allow in my home is up to me and whom I refuse entry is not
the purvey of HOA Nazis. And, again, it is why I chose an older home
(1956) with plenty of room, almost ZERO crime, and NO
HOA's. Now should I run into one of those SOB's that start telling me what I
can or can't do, then it will become another story. I feel so strongly
about property rights that I would go to WAR over it, both nationally...or
on a personal basis. Like, I wouldn't be averse to whuppin' some
smartmouth's you-know-what over it. Again, being very quiet and peaceable as
I certainly am, I am also quite intimidating in stature, so it would be an
interesting fight! LOL! Now, it *could* even get down to the point of
"You SOB, you can tell me what to do when you get around on the backside of
my shotgun, or you got enough
a$$ on ya to MAKE me, you *&^%$#"! LMAO!

In Charlotte, NC, this year, there was a case where the HOA Nazis and their
powermongers went too far with "foreclosures" and the NC legislature put
some restrictions on their ability to foreclose with respect to their
"rules".

Now, foreclosing on someone's house because some Nazi b#####d didn't LIKE the peoples' guests? NOT!
(Not me because I don't HAVE that problem) I can see how this could cause somebody to get severely injured or KILLED! You don't MESS with one's home! :(I feel for those who have to put up with such nonsense! OTH, one should NEVER move into such a place, either, so he bears some of the blame. :)

Best to all,

Jerry

560. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 17:43:41 UTC
From: nm5k@wt.net
Message-ID: <1126719821.079557.152100@g47g2000cwa.googlegroups.com>
Source record: 70657

I think because space, money, and aesthetics are limiting factors, I
need to use precision to my advantage rather than size or height, and a
4 square may help there.

Sounds like too much work for my lazy a$$... :/ If you did that for
20m, it's kinda stuck , as far as spacing, etc, for good performance
on the other bands. Me, on 20m...I'd be using my mobile antenna.
And I'd probably be hanging pretty close with any "fancy" antenna.
When I'm mobile, 20m up, there is *no* disadvantage vs being at
the house on dipoles, etc.. At least as far as talking. On 20m, my
mobile is LOUD. I can work dx at the drop of a hat, and still do
well stateside. Even on 40m, there is little real disadvantage to
being mobile vs the dipole at home. Even in the daytime. Say if
I'm 20-30 over 9 at home, and drop to 10-15 over 9 in the mobile.
Doesn't
amount to a hill of beans... Same for 75m. But in the summer on 75m,
I do recommend a dipole/loop, as it will be worth quite a bit in
getting
over the noise running NVIS. I could talk with the mobile just fine,
but the dipole will make me "full quieting" to use an expression...
It's like throwing on an extra 500w when you are shooting upwards...
I wouldn't underestimate how well a *good* mobile antenna could
work on the higher bands. If it's mounted up high on a trailer, etc,
it should work well. It's like being on a huge car. The only problem
is
changing bands...You need to be able to reach it to change taps,
etc.. But that can be easy with a quick disconnect. That's what I
use on mine. I can't reach my coil when the antenna is on the trucks.
With the disconnect, a twist, and it's off. Also good for theft
prevention..
A good screwdriver could be an option too.
Not saying you can't try other antennas, but just saying , a good
mobile
will get the job done, all by itself. And it's pretty simple and easy
to
look at visually. It will often outplay ground mounted trap verticals
with mediocre radial systems on the higher bands.
MK

561. FS: KLM 10-4 10 meter beam NIB

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 17:50:40 UTC
From: nitram578 <nitram578@charter.net>
Message-ID: <LpZVe.39391$1g2.741@fe05.lga>
Source record: 70658

For sale a NIB KLM 10-4 (4 element 10 meter beam) $100.00 plus shipping.

562. Re: how to model a loaded vertical ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 18:25:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11igqo08d5rp800@corp.supernews.com>
Source record: 70659

Ham op wrote:
> Roy, if he reads the impedance value he can determine resonance by the
> absence of the reactive term.
>
> Do you agree that the SWR scan is a poor method of determining resonance?

No, I usually use the SWR sweep to determine resonance. Stepping the cursor and looking at the impedance at each step quickly identifies the resonant frequency to within the closest step. Additional narrower scans are done as necessary to get more precision. What method do you use that's better?

Roy Lewallen, W7EL

563. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 18:28:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11igqtpiih2553a@corp.supernews.com>
Source record: 70660

nm5k@wt.net wrote:
> A better indication would be a
> graphical representation.
>
> The EZNEC demo does that well. There is a little green ball
> that you can grab with your mouse, and place it at any angle
> you wanna check. Makes it quite easy to see, or compare
> various angles. MK
>

Better yet, you can superimpose the plots from two antennas for direct comparison. In v. 4.0, you can even get a numerical readout of the difference between the two in dB at the angle of the cursor (the little green ball).

Roy Lewallen, W7EL

564. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 18:31:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11igr4q450p1d7e@corp.supernews.com>
Source record: 70661

nospam@nouce.bellatlantic.net wrote:
> On Tue, 13 Sep 2005 20:43:23 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>An antenna doesn't have a single "radiation angle". It radiates at all
>>angles. The relevant question is how much does it radiate at the
>>particular angle of interest, not at which angle does it radiate the
>>most. An antenna which radiates its maximum at a high angle might well
>>radiate more at a low angle than an antenna with a lower angle of
>>maximum radiation.
>>
>>Roy Lewallen, W7EL
>
>
> Hello Roy,
>
> I do understand that. I also understand when you say radiation angle
> your talking about the primary or dominent lobe(s). There may be
> many other lobes at useful or less than useful angles present as well.
>
> However, how does that relate to using a shortend antenna with maybe
> 10% radiation efficientcy to a dipole at a reasonably attainable
> height?
>
> Allison
> KB1GMX

The context was that one antenna was better for DX than the other
because it had a "lower radiation angle". An antenna with a "low
radiation angle" which is 10% efficient probably radiates less at low
angles than a more efficient antenna with a "high radiation angle".
Therefore it's not a better DX antenna. My point is simply that the
angle of maximum radiation is not a valid criterion for comparing antennas.

Roy Lewallen, W7EL

565. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 18:37:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11igt81c682aheb@corp.supernews.com>
Source record: 70662

Bill Turner wrote:
> Roy Lewallen wrote:
>
>
>>An antenna doesn't have a single "radiation angle". It radiates at
>>all angles. The relevant question is how much does it radiate at the
>>particular angle of interest, not at which angle does it radiate the
>>most.
>
> ~~~~~~
>
> That's true, except few if any hams have a specific "angle of
> interest", since different angles are used at different times. For
> most of us, the angle of maximum radiation gives a general indication
> of how the antenna will perform. A better indication would be a
> graphical representation. It's always a problem when one tries to
> reduce a complex situation like this down to a single number.
>
> 73, Bill W6WRT

I agree, which is why EZNEC produces a graphical output. I encourage people to look at it rather than reducing the pattern to a single number. And I have to emphasize once again that what really counts is the field strength, not the pattern shape. An antenna can have a wonderful looking pattern with nearly all its radiation at low angles, and still be a poor antenna for DX. Or with nearly all its radiation at high angles and be a poor antenna for short range communications. One familiar example is a Beverage antenna, which has a lovely pattern shape but makes a poor transmitting antenna. A quarter wave vertical will nearly always do much better for transmitting, even at the angles favored by the Beverage.

Roy Lewallen, W7EL

566. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 20:30:28 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <EL%Ve.239204$HI.215828@edtnps84>
Source record: 70663

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11iesohk2gnkf80@corp.supernews.com...
> Just about any antenna textbook will show you the calculation of a half
> wavelength, infinitely thin dipole in free space. For that special case,
> the answer ends up being simply 30 * Cin(2 * pi), where Cin is a
> modification of the cosine integral Ci[*]. That's where the "magic number"
> comes from. Kraus' _Antennas_ is just one of the many textbooks which give
> the derivation for this. It takes about 3 pages and 23 equations for Kraus
> to derive.
>
> One assumption made in calculation of this value is that the current
> distribution is sinusoidal, an assumption that's true only for an
> infinitely thin antenna. For finite thickness wire, the calculation
> becomes much more difficult. The radiation resistance changes only slowly
> with wire diameter, however, so sinusoidal distribution is a reasonably
> good approximation provided that the antenna is thin. Feedpoint reactance,
> though, varies much more dramatically with both antenna length and
> diameter. Calculating its value exactly requires solution of a triple
> integral equation which can't be solved in closed form. That's why
> computer programs are used to solve it numerically.
>
> To include the effect of ground, you need to calculate the mutual
> impedance between the antenna and its "image". If the antenna is about 0.2
> wavelength above ground or higher (for a half wave antenna -- the height
> must be greater if the antenna is longer), you can assume that the ground
> is perfect and get a pretty good result. Below that height, the
> calculation again becomes much more complicated because the quality of the
> ground becomes a factor. If you're interested in the numerical methods
> used, locate the NEC-2 manual (available on the web), which describes it.
>
> If you're satisfied with approximate results, the work by S.I. Shelkunoff
> provides formulas for free-space input impedance of antennas with finite
> diameter wire which can be solved with a programmable calculator or
> computer. They're detailed in "Theory of Antennas of Arbitrary Size and
> Shape", in Sept. 1941 Proceedings of the I.R.E. The formulas for R and X
> contain many terms involving sine and cosine integrals, which can be
> approximated with numerical series. You'll find additional information in
> his book _Advanced Antenna Theory_. For approximate calculations of mutual
> impedance of thin linear antennas, see "Coupled Antennas" by C.T. Tai, in
> April 1948 Proceedings of the I.R.E. Those also involve multiple terms of
> sine and cosine integrals.
>
> Before numerical calculations became possible, many very good
> mathematicians and engineers devised a number of approximation methods of

> varying complexity and accuracy. You'll find their works in various
> journals primarily in the 1940s - 1960s.
>
> The complexity and difficulty of the problem is why virtually all antenna
> calculations are done today with computers, using numerical methods such
> as the moment method.
>
> In summary, here are your choices:
>
> 1. You can calculate the approximate radiation resistance but not
> reactance of a thin, free-space antenna by assuming a sinusoidal current
> distribution and using the method Reg described. To include the effect of
> ground, you have to calculate or look up from a table the mutual impedance
> between the antenna and its "image", and modify the feedpoint impedance
> accordingly by applying the mesh equations for two coupled antennas. This
> method of including the effect of ground becomes inaccurate below around
> 0.2 wavelength, if the antenna is over typical earth.
>
> 2. You can use various approximation methods to calculate reactance, and
> resistance with better accuracy. But for the effect of ground, you're
> still limited to being greater than about 0.2 wavelength high.
>
> 3. To accurately include the effect of real ground with low antennas,
> and/or to get resistance and reactance values with arbitrarily good
> accuracy requires numerical methods. A computer program is the only
> practical way to do this. A very good basic description of the moment
> method can be found in the second and later editions of Kraus' _Antennas_.
>
> [*] Cin(x) = ln(gamma * x) - Ci(x), where gamma = Euler's constant, 0.577.
> . . Ci(x) = the integral from -infinity to x of [cos(v)/v dv] = ln(gamma *
> x) - (x^2)/(2!2) + (x^4)/(4!4) - (x^6)/(6!6). . .
>
> Roy Lewallen, W7EL

Very interesting references. In particular Kraus' 2nd ed. pp 359 - 408.
Also Stutzman and Thiele, 1st ed. pp 306 - 374. Pretty much grad level,
needs effort, (for me) even though I took Stutzman and Thiele's antenna
course in 1998 (NCEE).

Regards,

Frank

567. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 20:34:41 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <BP%Ve.239206$HI.206107@edtnps84>
Source record: 70664

```
>> Cec, what's the Poynting Vector?
>
> Same thing as a power flow vector. The dimensions are
> energy per second per unit area. If the power flow vector
> is integrated over the entire surface of a sphere of radius
> r, the result is total radiated power. I thought maybe you
> and Mr. Poynting might have worked together at some time in
> the 20th century. :-)
>
>> Poynting, John Henry (1852-1914)
>> English physicist, mathematician, and inventor. He devised an equation by
>> which the rate of flow of electromagnetic energy
> > (now called the Poynting vector) can be determined.

S = E X H
```

568. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 20:39:25 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <5MOAq4S9pIKDFwB+@g3ohx.demon.co.uk>
Source record: 70665

In message <1126655181_28167@spool6-east.superfeed.net>, Cecil Moore
<mycall@arrl.net> writes
>Reg Edwards wrote:
>> Antenna conductors ARE transmission lines and the same sort of
>> calculations apply.
>
>You're right, Reg. Without reflections from the ends of a
>dipole, the feedpoint impedance would be hundreds of ohms.
>A standing wave antenna is like a lossy transmission line
>where the loss is to radiation. And the SWR on a 1/2WL dipole
>standing wave antenna is quite high - in the neighborhood of
>20:1.

Just a quick question.
What is the impedance at the centre of an infinitely long dipole (in
free space)?
Ian.
--

569. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 21:02:31 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1126731751.254078.115460@g49g2000cwa.googlegroups.com>
Source record: 70666

Hi Cecil,

I find another formula in Balnais book (section 4.3, 1982 edition)
for Rr:

Rr = 20 * (pi)^2 * (l / lamda)^2 (4-37)

If l = lamda/2, then this formula gives Rr .=. 50 Ohms.

(4-93) the one you quoted is

Rr = (120*pi) / (4*pi) * Cin(2*pi) = 73 Ohms, (for l = lamda/2)

where 120*pi is the intrinsic impedance for a free-space medium.

Would you please explain the difference between these
two formulas (4-37 and 4-93)?

Thanks!

-- Harry

570. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 21:06:10 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dga3c2$833$1@engnntp2.cig.mot.com>
Source record: 70668

Anyway, reading the op carefully, he asked for an exact _explanation_, not
an exact calculation result..
Steve, K;9.D,C'I

"Bill Turner" <noway@nohow.com> wrote in message
news:xn0e77aaf2tt5l000@cnews.newsguy.com...
> Reg Edwards wrote:
>
> > There's no such value as 'exact'.
> ~~~~~~
>
> Nonsense. I have exactly two pencils in my pencil holder. :-)
>
> 73, Bill W6WRT

571. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 21:38:21 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dga63e$1h9$1@news.service.uci.edu>
Source record: 70670

Cecil Moore wrote:
> Ian Jackson wrote:
>
>> Just a quick question.
>> What is the impedance at the centre of an infinitely long dipole (in
>> free space)?
>
>
> Same as a terminated dipole in an anechoic chamber? 600-800 ohms?

Not at zero Hz.

ac6xg

572. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 21:42:37 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dga6bi$1mq$1@news.service.uci.edu>
Source record: 70671

Harry wrote:

> Hi Cecil,
>
> I find another formula in Balnais book (section 4.3, 1982 edition)
> for Rr:
>
> Rr = 20 * (pi)^2 * (l / lamda)^2 (4-37)
>
> If l = lamda/2, then this formula gives Rr .=. 50 Ohms.
>
> (4-93) the one you quoted is
>
> Rr = (120*pi) / (4*pi) * Cin(2*pi) = 73 Ohms, (for l = lamda/2)
>
> where 120*pi is the intrinsic impedance for a free-space medium.
>
> Would you please explain the difference between these
> two formulas (4-37 and 4-93)?
>
>
> Thanks!
>
> -- Harry

4-37 should apparently read:

Rr = 30 * (pi)^2 * (1 / lambda)^2.

ac6xg

573. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 21:42:53 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126734334_299@spool6-east.superfeed.net>
Source record: 70667

Ian Jackson wrote:
> Just a quick question.
> What is the impedance at the centre of an infinitely long dipole (in
> free space)?

Same as a terminated dipole in an anechoic chamber? 600-800 ohms?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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574. Re: How Handle Multiple Open Wire Lines?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 21:50:30 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <lm6hi11tpka43ddh6a5b98jlfpd8mjhb9i@4ax.com>
Source record: 70669

Here is a commercial implementation of MF / HF transmission lines.
(They are not telephone lines.)

http://members-central.optushome.com.au/vk3ase/feed2.jpg

http://members-central.optushome.com.au/vk3ase/feed.jpg

Owen

On Mon, 1 Aug 2005 17:43:34 -0700, "greg knapp 5"
<gknapp@freshrain.org> wrote:

>I need your advice, as I have never worked with open wire lines before.
>I need to feed many different antennas with open wire line and need to run
>the feeline from each about 200 feet from the back pasture to the shack. I
>don't want to walk out 200 feet and throw knife switches to chose the
>antenna/feedline I want to feed, so I plan to run separate 600 ohm open
>feeds for each antenna all the way to the shack.
>The problem is I don't know what the effect is or how to handle the
>multiple open wire feed lines, as they will be parallel for probably 150-200
>feet. I haven't found anything in literature describing this.
>For instance, will they interact? how far do you space the feedlines from
>one another? If I have 4 feedlines, can I stack them vertically or
>horizontally one foot apart from each other? How much is enough separation?
>What other precautions do I need? Need they be twisted if they are not near
>anything other than the other feed lines?
>Any help is appreciated.
>73,
>Greg, N6GK
>
--

575. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 22:15:10 UTC
From: David <groups@orbitcoms.com>
Message-ID: <Oh1We.47455$FA3.23606@news-server.bigpond.net.au>
Source record: 70672

Cecil,

Thanks for the info. The open stub J looks like it should be suitable
for my application being ground independent, omni directional and having
low radiation angle.

Cecil Moore wrote:

> David wrote:
>
>> Does anyone know of where I could find an example of a homebrew open stub
>> fed j antenna. I want to construct a unit for 915 MHz using SMA plug
>> and coaxial cable.
>
>
> An open stub J-pole is the same as a Zepp. 1/2WL element
> end fed by 1/4WL balanced series section. The coax connects
> to the end of the series section. Arrow Antenna makes one
> for 2m. Plans are available that could possibly be scaled
> to 915 MHz.

576. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 23:03:57 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <x%1We.24847$8h6.5066@trnddc09>
Source record: 70673

Dave

Have you considered making a coaxial version of the J-pole?

http://www.ansoft.com/news/articles/04.05_MWJ.pdf

Jerry

"David" <groups@orbitcoms.com> wrote in message
news:Oh1We.47455$FA3.23606@news-server.bigpond.net.au...
> Cecil,
>
> Thanks for the info. The open stub J looks like it should be suitable for
> my application being ground independent, omni directional and having low
> radiation angle.
>
> Cecil Moore wrote:
>
>> David wrote:
>>
>>> Does anyone know of where I could find an example of a homebrew open
>>> stub
>>> fed j antenna. I want to construct a unit for 915 MHz using SMA plug and
>>> coaxial cable.
>>
>>
>> An open stub J-pole is the same as a Zepp. 1/2WL element
>> end fed by 1/4WL balanced series section. The coax connects
>> to the end of the series section. Arrow Antenna makes one
>> for 2m. Plans are available that could possibly be scaled
>> to 915 MHz.

577. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 23:12:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126739706_405@spool6-east.superfeed.net>
Source record: 70674

Harry wrote:
> Would you please explain the difference between these
> two formulas (4-37 and 4-93)?

Equation 4-37 is from section "4.3 SMALL DIPOLE", i.e. shorter
than 1/2WL. The dipole is so short that its current distribution
is triangular, not sinusoidal. Quoting section 4.3: "The radiation
resistance of the antenna is strongly dependent upon the current
distribution." The "1/2" on the diagram does NOT mean 1/2WL.

Equation 4-93 is from section "4.6 HALF-WAVELENGTH DIPOLE". The
current distribution on the thin-wire 1/2WL dipole is considered
to be sinusoidal.

See Figure 4.8. Note the triangular current distribution for
L = 1/4WL and the sinusoidal current distribution for L = 1/2WL.
--
73, Cecil http://www.qsl.net/w5dxp

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578. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-14 23:13:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126739764_407@spool6-east.superfeed.net>
Source record: 70675

David wrote:
> Thanks for the info. The open stub J looks like it should be suitable
> for my application being ground independent, omni directional and having
> low radiation angle.

Be sure to include a choking function at the feedpoint.
--
73, Cecil http://www.qsl.net/w5dxp

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579. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 00:34:51 UTC
From: David <groups@orbitcoms.com>
Message-ID: <Lk3We.47558$FA3.24590@news-server.bigpond.net.au>
Source record: 70576

Thanks for the feedback everyone.

The article Jerry pointed me to starts looking like the commercial antenna I was initially studying. Their unit though only had a 1/4 wave above the coaxial sleeve.

From the SMA plug, the coax coiled around the radome must have been the choke to help reduce RF currents radiating from the earth braid.
Then the 1/4 wave length coax forms the match followed by the expose radiating section.

It looks like an open stub fed J-pole where the stub is enclosing the inner element rather than being constructed as a rod next to it.

Does this seem reasonable ? (PS. I'm a beginner with regards to antenna theory and would like to understand what is happening so that I can experiment with some kind degree of success).

Cecil Moore wrote:
> David wrote:
>
>> Thanks for the info. The open stub J looks like it should be suitable
>> for my application being ground independent, omni directional and
>> having low radiation angle.
>
>
> Be sure to include a choking function at the feedpoint.

580. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 01:03:40 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <2K3We.5007$%Q1.3074@bignews3.bellsouth.net>
Source record: 70577

<eternalsquire@comcast.net> wrote in message
news:1126505259.234971.15970@f14g2000cwb.googlegroups.com...
> Hi,
>
> I'd like some advice for determining the best antenna to put up in my
> situation.
>
> I am getting set to move to a trailer park in northeast arizona, about
> 50 miles west of Gallup, NM. Locals have no objection to antennas so
> long as people don't have to run into them via normal passage ways.
> The trailer is 12 feet high by 15 feet wide by 50 feet long, facing
> N-S. Nearest certain ground is electrical panel. The water pipe is
> metal but could be interrupted throughout system by PVC. There may
> also be significant noise from AC systems in park.
>
> Good news is that my wife is giving me an entire walk-in closet for my
> station, and that I can lay aluminum foil against all surfaces to
> create a Faraday cage.
>
> I have approx 25 to 30 feet between my trailer and neighbors, and a 35
> foot altitude streetlamp 6 feet away curb. Soil conductivity is red
> clay, extremely poor. Significant rainfall (monsoons) summer to fall.
> Winds gusting to 50 or 60 mph during winter. Soil frosts between
> October to March.
>
> I would like to work CW DX on 40, 30, 20, and 17 meters. 80 and 160
> would
> be a bonus. Conventional options such as tower or surplus telephone
> pole are out of the question due to cost and lack of available area.
> Radials must be buried as children are playing nearby.
>
> Probable options:
>
> 1) Load up the streetlamp with an antenna matcher, work against 180
> degrees of buried radials out to 1/8 lambda.
>
> 2) Solder a series of tin/steel cans (cantenna) using pocket torch and
> copper tape to 1/4 lambda with added capacitance hat(s), brace the cans
> against the ground and the trailer, work against 270 to 360 degrees of
> buried radials out to 3/8 lambda.
>
> 3) Create a mast from 40 feet of metal pipe and 15 feet of wood rod,
> brace against trailer burying pipe end 10 feet, mount an inverted vee
> trap dipole in N-S direction for E-W DX.

>
> 4) Pair of masts on either side of the trailer, mount a delta loop
> from each mast, feed one loop and use the other as a reflector.
>
> 5) Pair of cantennas on each side of the trailer, operating as out of
> phase pair of 1/4 lambda verticals.
>
> Which would be best? And where do I place the lightning arrestor(s)?
>
> Thanks,
>
> The Eternal Squire

How about the screwdriver antenna. This is compact, can even be "disguised" inside a PVC pipe, can be positioned vertically OR horizontally and can be used to tune a random wire strung into a nearby tree. I used this system on a motor home where we positioned the antenna on the rear ladder with a swivel mount. When traveling, the antenna was positioned at a 45 degree angle and rested in a wooden cradle on top of the bus. At rest, the antenna could be raised to the vertical in a minute or two and tightened with thumbscrews. Because the motor home was mostly fiberglass, we quickly discovered that the antenna could be used in the semi-horizontal position while going down the road with good results! In your case, your trailer would be a "mobile", but you could set it up in several ways to take advantage of various situations, and, also tune a random wire with it. I've done this while on field exercizes with CAP.

Now I know I am partial since I make screwdrivers, but you can find a variety of makers on the web. Just try to avoid the ones made of PVC and, of course, there are those that are SUPER expensive. Go for the ones with larger diameter coils and wire sizes and avoid the ones that promise 160 thru 10. Those that promise 160 thru 10 are the ones that are wound on small diameter forms and are wound with 20 gauge wire CLOSELY together (in effect, transformer-wound) which destroys your "Q".
I doubt seriously such an antenna would do much "punkin" on 160!

Every body runs into compromises at times, so you have to be do the best you can do with what you have to work with.

If you have 75 feet of room over your lot, then you might visit www.k1jek.com for an all-band dipole 80-10 Meters. I'm told this is a good choice for short lots.

Hope this helps

73

Jerry
K4KWH

www.qsl.net/k4kwh
>

581. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 01:09:00 UTC
From: dplatt@radagast.org
Message-ID: <11ihidcala4s727@corp.supernews.com>
Source record: 70578

In article <Lk3We.47558$FA3.24590@news-server.bigpond.net.au>,
David <groups@orbitcoms.com> wrote:

>The article Jerry pointed me to starts looking like the commercial
>antenna I was initially studying. Their unit though only had a 1/4 wave
>above the coaxial sleeve.
>
> From the SMA plug, the coax coiled around the radome must have been the
>choke to help reduce RF currents radiating from the earth braid.
>Then the 1/4 wave length coax forms the match followed by the expose
>radiating section.
>
>It looks like an open stub fed J-pole where the stub is enclosing the
>inner element rather than being constructed as a rod next to it.
>
>Does this seem reasonable ? (PS. I'm a beginner with regards to antenna
>theory and would like to understand what is happening so that I can
>experiment with some kind degree of success).

Yes, it does. Take a look at the following:

http://download.antennex.com/hws/ws1002/sperrtof.pdf

A Sperrtof, in effect, is a J-pole whose matching section is a coaxial tube rather than a single rod or wire. It sounds rather like what you're describing.

As with all such (I think), the radiating section is 1/2 wavelength long, give or take a smidge, and behaves as an end-fed 1/2-wave dipole. The matching section isn't supposed to radiate significantly.

The overall radiation pattern would, I expect, be essentially the same as other J-poles and other end-fed 1/2-wave radiators - similar to a center-fed 1/2-wave dipole, but tilted a bit "upwards" away from the feedpoint.

You can distinguish a Sperrtof-type antenna from one of the coaxial dipoles Jerry referred you to, by the length of the single-wire radiator - it's 1/2-wave for a Sperrtof and 1/4-wave for a coaxial dipole (which is really a center-fed dipole).

There's an interesting dual-band 2m/440 antenna which was written up in QST in October 2000 - ARRL members can get the article at http://www.arrl.org/members-only/tis/info/pdf/0010050.pdf

It's interesting because it's _called_ a J-pole, _looks_ like a J-pole... but electrically it isn't. It's actually a center-fed

vertical, not a Zepp. The stub at the bottom acts as a
choke/decoupler, not as an impedance transformer.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

582. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 01:41:06 UTC
From: David <groups@orbitcoms.com>
Message-ID: <Si4We.47593$FA3.15680@news-server.bigpond.net.au>
Source record: 70579

Dave,

If I scale that up to 915MHz, the dimensions are almost perfect for using RG58 coax instead of the copper tubing.The outer tube would be 5.5mm and inner conductor 1.6mm. Being 50 Ohm coax, I assume therefore I do not need to slide the tap point up as their design did. I suppose I should also add the choke coil at the antenna base for additional isolation of ground currents.

The article mentions the top part as 1/2 wave and bottom at 1/4 wave. If the bottom part of their design is 505mm then the antenna must be used for 2m band. If this is the case, how come the radiating element is 1480 long ?

The Coaxial antenna mentioned in the article mentioned by Jerry looks good. The version they mention with a GAP would be simple to construct. It is a 1/4 wave radiating element at the top (earth braid stripped back), then 1/4 wave of full coax, then a "small" gap, then the transmission line. They do not mention the size of the gap but I assume any small gap has the same effect of isolating the reverse current ?

Should the actual lengths of these sections be modified by "K" depending on diameter of conductor or are they exact 1/4 wave length cuts ?

Thanks heaps.

Dave Platt wrote:
> In article <Lk3We.47558$FA3.24590@news-server.bigpond.net.au>,
> David <groups@orbitcoms.com> wrote:
>
>
>>The article Jerry pointed me to starts looking like the commercial
>>antenna I was initially studying. Their unit though only had a 1/4 wave
>>above the coaxial sleeve.
>>
>>From the SMA plug, the coax coiled around the radome must have been the
>>choke to help reduce RF currents radiating from the earth braid.
>>Then the 1/4 wave length coax forms the match followed by the expose
>>radiating section.
>>
>>It looks like an open stub fed J-pole where the stub is enclosing the
>>inner element rather than being constructed as a rod next to it.
>>
>>Does this seem reasonable ? (PS. I'm a beginner with regards to antenna
>>theory and would like to understand what is happening so that I can
>>experiment with some kind degree of success).

>
>
> Yes, it does. Take a look at the following:
>
> http://download.antennex.com/hws/ws1002/sperrtof.pdf
>
> A Sperrtof, in effect, is a J-pole whose matching section is a coaxial
> tube rather than a single rod or wire. It sounds rather like what
> you're describing.
>
> As with all such (I think), the radiating section is 1/2 wavelength
> long, give or take a smidge, and behaves as an end-fed 1/2-wave
> dipole. The matching section isn't supposed to radiate significantly.
>
> The overall radiation pattern would, I expect, be essentially the same
> as other J-poles and other end-fed 1/2-wave radiators - similar to a
> center-fed 1/2-wave dipole, but tilted a bit "upwards" away from the
> feedpoint.
>
> You can distinguish a Sperrtof-type antenna from one of the coaxial
> dipoles Jerry referred you to, by the length of the single-wire
> radiator - it's 1/2-wave for a Sperrtof and 1/4-wave for a coaxial
> dipole (which is really a center-fed dipole).
>
> There's an interesting dual-band 2m/440 antenna which was written up
> in QST in October 2000 - ARRL members can get the article at
> http://www.arrl.org/members-only/tis/info/pdf/0010050.pdf
>
> It's interesting because it's _called_ a J-pole, _looks_ like a
> J-pole... but electrically it isn't. It's actually a center-fed
> vertical, not a Zepp. The stub at the bottom acts as a
> choke/decoupler, not as an impedance transformer.
>

583. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 01:50:02 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1126749002.880338.163600@f14g2000cwb.googlegroups.com>
Source record: 70580

> See Figure 4.8. Note the triangular current distribution for
> L = 1/4WL and the sinusoidal current distribution for L = 1/2WL.

Very good,..... thanks a lot!
Your figure 4.8 (second edition) is figure 4.7 in the first edition.
These current distribution curves (1/4, 1/2, 1, 3/2, and 2 Lamda
length)
are interesting to study.

-- Harry

584. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 02:10:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126750373_543@spool6-east.superfeed.net>
Source record: 70581

David wrote:
> If I scale that up to 915MHz, the dimensions are almost perfect for
> using RG58 coax ...

I wouldn't use RG58 for anything above HF. It has 20 dB
matched line loss per 100 ft at that frequency.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

585. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 02:41:04 UTC
From: David <groups@orbitcoms.com>
Message-ID: <4b5We.47625$FA3.35929@news-server.bigpond.net.au>
Source record: 70582

So for the 1/4 wave (81mm) section of the antenna the loss would be
about 0.05dB ? at 915 MHz.

I typically have between 150mm (When antenna mounted on enclosure) and
2m length (when antenna external to enclosure) cable between transmitter
and Antenna. (Around 1.2dB max. loss in coax between transmitter and
antenna). Would this usually be acceptable or do you aim for much lower
loss in the transmission line ? Max. power is 1 Watt. Most of the
transceivers I play around with are around 10mW.

Thanks

Cecil Moore wrote:
> David wrote:
>
>> If I scale that up to 915MHz, the dimensions are almost perfect for
>> using RG58 coax ...
>
>
> I wouldn't use RG58 for anything above HF. It has 20 dB
> matched line loss per 100 ft at that frequency.

586. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 12:42:48 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <c%dWe.5930$R9.1224@trnddc02>
Source record: 70583

"David" <groups@orbitcoms.com> wrote in message
news:4b5We.47625$FA3.35929@news-server.bigpond.net.au...
> So for the 1/4 wave (81mm) section of the antenna the loss would be about
> 0.05dB ? at 915 MHz.
>
20dB/100' MATCHED line loss.
W4OP

587. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 13:07:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126789815_959@spool6-east.superfeed.net>
Source record: 70584

David wrote:
> So for the 1/4 wave (81mm) section of the antenna the loss would be
> about 0.05dB ? at 915 MHz.

Depends upon whether you leave the insulation on the radiating
part or not. But what I was concerned about is the transmission
line. You lose about half of your power every 15 feet. Until
your last posting, you didn't tell us the length of the
transmission line but personally I find 1.2 dB matched line
loss in six feet to be unacceptable. Any SWR above 1:1 and the
losses are even greater.

> Cecil Moore wrote:
>> I wouldn't use RG58 for anything above HF. It has 20 dB
>> matched line loss per 100 ft at that frequency.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

588. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 14:41:17 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e455b$43298825$471c610a$28456@ALLTEL.NET>
Source record: 70585
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

While I would agree with officious and petty, moron and bigot do not apply
from my readings.

I get really tired of that old saw being hauled out and applied to people;
simply because others disagree with their actions.

A few moments spent perusing a dictionary will show that simply refusing to
take in a storm victim, while abhorrent to me, does not make one a bigot.

"Michael A. Terrell" <mike.terrell@earthlink.net> wrote in message
news:4324E0BD.A033E1A@earthlink.net...
> "LenAnderson@ieee.org" wrote:
> >
> > The disaster of hurricane Katrina is of unparalleled proportions
> > and ALL humane-thinking citizens can do their part, however big,
> > however small.
>
>
> And then, there are the morons and bigots:
>
<http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+
Oaks&btnG=Search+News>
>
>
> --
> ?
>
> Michael A. Terrell
> Central Florida

589. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 14:56:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <71e25$43298bb2$471c610a$29323@ALLTEL.NET>
Source record: 70586

Smack her in the head and put up a tower, It has worked on all 7 of my wives. :>)

<eternalsquire@comcast.net> wrote in message
news:1126670383.884527.133320@f14g2000cwb.googlegroups.com...
> Money and space are actually limiting factors, but at least CC&R's
> arent! My wife and I have been discussing this, and she really
> doesn't like the idea of something 30 to 40 feet high on a small lot.
>
> Her interest actually is gardening and we had been discussing
> containing an area of decent topsoil within a square formed by railroad
> ties. She has no objection to 20 to 25 foot high metal poles on the
> corners of a square 20 to 25 foot on the side... which turns out to be
> the core geometry of a 20 meter 4-square broadside phase array.
>
> I would lay the poles first in concrete reinforced holes, connect the
> feed network and radials on the dirt, and lay feed line underground
> from the array to just near the trailer. Then I would lay the railroad
> ties along the square, and then fill the square with topsoil.
>
> Additional radials would need to be buried under a couple inches of red
> clay fanning out from the square.
>
> Variations:
> 1) could I create trap verticals from the poles for 20, 17, 15, and 10
> meters, or do I need inscribed squares of seperate verticals because
> seperate phased feeds might be needed for these other bands?
> 2) could I simply operate the square outside of 20 meters with a tuner
> for local operation?
>
> I think because space, money, and aesthetics are limiting factors, I
> need to use precision to my advantage rather than size or height, and a
> 4 square may help there.
>
> Comments?
>
> The Eternal Squire
>

590. Katrina Ham Stories

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 15:20:00 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <AigWe.79941$DW1.42106@fed1read06>
Source record: 70587

http://ac6v.com/new.htm

See big antenna in action
Ham Radio Rescue Effort On TV
http://easylink.playstream.com/katu/050831ham_operator_530pm.wvx

--
CL -- I doubt, therefore I might be !

591. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 15:36:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4o4ji1p26o2mcctbkfbuugpan1qmlt05nd@4ax.com>
Source record: 70588
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 15 Sep 2005 10:41:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>A few moments spent perusing a dictionary will show that simply refusing to
>take in a storm victim, while abhorrent to me, does not make one a bigot.
>
from the Oxford English Dictionary:

Bigot. 1598. 1. A hypocrite. 2. A superstitious person - 1664. 3. A
person obstinately and unreasonably wedded to a creed, opinion or
ritual - 1661. Intolerant toward others - 1645.

Hardly seems that the meaning has veered from this in the past 340
years.

73's
Richard Clark, KB7QHC

592. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 16:00:29 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <31f74$43299abf$471c63c6$12083@ALLTEL.NET>
Source record: 70589
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Perhaps you could show me where any of the offered definitions apply to an
HOA rule that prohibits non family members from residing in a home.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:4o4ji1p26o2mcctbkfbuugpan1qmlt05nd@4ax.com...
> On Thu, 15 Sep 2005 10:41:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >A few moments spent perusing a dictionary will show that simply refusing
to
> >take in a storm victim, while abhorrent to me, does not make one a bigot.
> >
> from the Oxford English Dictionary:
>
> Bigot. 1598. 1. A hypocrite. 2. A superstitious person - 1664. 3. A
> person obstinately and unreasonably wedded to a creed, opinion or
> ritual - 1661. Intolerant toward others - 1645.
>
> Hardly seems that the meaning has veered from this in the past 340
> years.
>
> 73's
> Richard Clark, KB7QHC

593. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 16:01:35 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ma6ji1ta47t9n95hh87nssvc4it2pjlko1@4ax.com>
Source record: 70590

In light of Colin Powell's position that the fate of the poorer people of New Orleans was not due to racism, but only failing to realize that those people had no means for transportation out of the city, it seems to me that racism and bigotry were not involved. To me it's significant that that position is held by a highly-respected person of color.

Walt, W2DU

On Thu, 15 Sep 2005 08:36:56 -0700, Richard Clark <kb7qhc@comcast.net> wrote:

>On Thu, 15 Sep 2005 10:41:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>wrote:
>
>>A few moments spent perusing a dictionary will show that simply refusing to
>>take in a storm victim, while abhorrent to me, does not make one a bigot.
>>
>from the Oxford English Dictionary:
>
>Bigot. 1598. 1. A hypocrite. 2. A superstitious person - 1664. 3. A
>person obstinately and unreasonably wedded to a creed, opinion or
>ritual - 1661. Intolerant toward others - 1645.
>
>Hardly seems that the meaning has veered from this in the past 340
>years.
>
>73's
>Richard Clark, KB7QHC

594. Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 16:36:27 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dgc7u7$9h8$1@mailhub227.itcs.purdue.edu>
Source record: 70591

I am in the planning stage for a 160 meters compact loop antenna. A loop antenna may not have metal nearby, so I am planning to use a wooden pole to support the top of the loop. In the ARRL Antenna handbook, it states that "W5QJR made a pole of 2 x 4-inch lumber with 1 x 4-inch boards on either side to form an I section. He held the boards together with 1/4-inch bolts, 2 feet apart and tied rope guys to the top. This made an excellent mast up to 50 feet high."

Does anyone have any comments on the feasibility of an unguyed pole using this same type of construction? Naturally, a portion of the pole would have to be underground, and perhaps set in concrete. What about a 50 feet pole, with 10 feet underground ,which would give you a 40 foot mast?

An alternative would be to have a contractor install a 40 feet utility pole, but I assume the wooden pole described above would be less of an eyesore (to the neighbors) than a utility pole.

Any comments and advice will be appreciated.
John, N9JG

595. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 16:40:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ba9ad$4329a42f$471c63c6$32069@ALLTEL.NET>
Source record: 70592

Even more frustrating is the number of school buses controlled by a black Mayor that never were put in to evacuation service. The same buses now set in water and I am sure they will be replaced at taxpayers expense.

As I was somewhat involved in the political debacle, I can tell you from personal experience that Red Cross and amateur radio vans were prohibited from entering the disaster area.

My cynical side says that in the background, a chance was both seen and taken to make George Bush look bad. The democrat political machine in New Orleans is only surpassed by that of Chicago.

I know for a fact the Red Cross was told that if they were to feed the people in the superdome they would stay.

Some how I find it ironical that a black mayor applied the same wisdom to his people that my mother applied to the neighborhood stay dog I attempted to feed.

Where were all the murdered bodies, in the superdome, the press reported on so breathlessly?

The must have hid them in Al Capone's vault to make Geraldo look bad; as he worked for the evil Fox network...

Of course the more the race card is played, the more money is offered by white America to assuage the implied guilt. Black poloticos have learned this lesson well!

"Walter Maxwell" <walt@w2du.com> wrote in message
news:ma6ji1ta47t9n95hh87nssvc4it2pjlko1@4ax.com...
> In light of Colin Powell's position that the fate of the poorer people
> of New Orleans was not due to racism, but only failing to realize
> that those people had no means for transportation out of the city, it
> seems to me that racism and bigotry were not involved. To me it's
> significant that that position is held by a highly-respected person of
> color.
>
> Walt, W2DU

596. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 17:08:23 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11ijakdlh2ucb26@corp.supernews.com>
Source record: 70593

If the poor people of New Orleans didn't have transportation out of town
it was because their elected Mayor refused to have them humiliated by
having to leave town in a school bus or city bus. He wanted Greyhound
busses with working air-conditioning for them.

It's in the disaster plan to use busses for evacuation. Read it.

Walter Maxwell wrote:
> In light of Colin Powell's position that the fate of the poorer people
> of New Orleans was not due to racism, but only failing to realize
> that those people had no means for transportation out of the city, it
> seems to me that racism and bigotry were not involved. To me it's
> significant that that position is held by a highly-respected person of
> color.
>
> Walt, W2DU
>
>
> On Thu, 15 Sep 2005 08:36:56 -0700, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>
>>On Thu, 15 Sep 2005 10:41:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>>wrote:
>>
>>
>>>A few moments spent perusing a dictionary will show that simply refusing to
>>>take in a storm victim, while abhorrent to me, does not make one a bigot.
>>>
>
>>from the Oxford English Dictionary:
>
>>Bigot. 1598. 1. A hypocrite. 2. A superstitious person - 1664. 3. A
>>person obstinately and unreasonably wedded to a creed, opinion or
>>ritual - 1661. Intolerant toward others - 1645.
>>
>>Hardly seems that the meaning has veered from this in the past 340
>>years.
>>
>>73's
>>Richard Clark, KB7QHC
>
>

597. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 17:08:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t3aji1hsepkfap9c8i3h0j3t592t8nedfd@4ax.com>
Source record: 70594
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 15 Sep 2005 12:00:29 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Perhaps you could show me where any of the offered definitions apply to an
>HOA rule that prohibits non family members from residing in a home.

You said it yourself:
>>refusing to take in a storm victim
exactly conforms to
>>>Intolerant toward others - 1645.

otherwise, why would you offer your opinion
>>while abhorrent to me

Christian charity is not fulfilled by a shrug of the HOA committee,
and members who enjoy the veil of these rules won't find it any easier
getting through the eye of the needle.

73's
Richard Clark, KB7QHC

598. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 17:28:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <slaji15dpo2hreb62h3l0u04srnc0288br@4ax.com>
Source record: 70595

On Thu, 15 Sep 2005 12:01:35 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>In light of Colin Powell's position that the fate of the poorer people
>of New Orleans was not due to racism, but only failing to realize
>that those people had no means for transportation out of the city, it
>seems to me that racism and bigotry were not involved. To me it's
>significant that that position is held by a highly-respected person of
>color.

Hi Walt,

Being bigoted does not necessarily mean one is racist. Bigots can
focus their intolerance on many subjects and be perfectly race-free.
On the flip side being racist automatically carries the label bigot.

Bigots are quite easily recognized, that is why there is the name to
denote the obvious. Certainly there is nothing subtle about this. I
cannot say that I have seen more than 20 minutes coverage on the
storm, especially when "news" is so evidently not informative as it is
salacious entertainment. They could have as easily run the movie
"Twister" to no different effect.

Further, those 20 minutes were not watched here, but in England where
the world was astonished by the third world class of impoverished
action taken.

As such, the folks at Fox would call me a bigot for being intolerant
of their coverage. However, it would be the Fox folks who serve the
American feed because their International feed was distinctly
different. None of you probably observed Rumsfield's visit,
un-edited, where the populace in a rage were yelling "Fuck YOU" at
him. I would suppose they were bigots too, given the inflexibility of
their opinion after rafting on the rooftops.

Fox was content to satisfy any audience, and I suppose that makes them
most catholic. [For those who are short on dictionary skills,
catholic means liberal or tolerant, a most amusing irony applied to
the Fox organization that literally serves all masters.]

73's
Richard Clark, KB7QHC

599. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 17:29:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126805610_1361@spool6-east.superfeed.net>
Source record: 70596

David G. Nagel wrote:
> It's in the disaster plan to use busses for evacuation.

One news service reported that billions earmarked for mass
transit and levee improvements had been spent on advertising
for the tourism industry.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

600. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:05:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgcd5g$j7b$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70597

A vertical conductor, a metal tube, running diametrically across a large magloop with the tuning capacitor at the top, has no effect either on radiating efficiency or the radiation pattern. It may as well not be there apart from providing a prop or support for the antenna itself. It will, of course, need to be well-insulated from the high-voltage parts.

In general, provided the longest dimension of foreign metalwork is much less than 1/2-wavelength, and there is not much of it, negligible loss will be induced in it. This is due to the very low loss resistance of most metals.

Metalwork in the vicinity of beam antennas may upset only the radiation pattern.

Short lengths of foreign metalwork in close vicinity of tramsmission lines, such as open-wire and ladder lines, will cause neglible loss but will slightly reduce the line impedance Zo which might affect the L and C settings of the tuner.

But beware of "semi-conductors", like damp wood such as foliage and tree trunks, in the near-fields of antennas and lines. Their higher impedance provide a better power match to the 'generator'.

You can have as much foreign polyethylene as you like.

Reg.

601. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:26:04 UTC
From: news-z-non-exist-z <z@z.z.z>
Message-ID: <dgcec9bic1@usenet.otenet.gr>
Source record: 70598

```
| "Roy Lewallen" <w7el@eznec.com>
| wrote in message news:11iesohk2gnkf80@corp.supernews.com...
|
| Just about any antenna textbook will show you the calculation
| [...]
| ln(gamma * x) - (x^2)/(2!2) + (x^4)/(4!4) - (x^6)/(6!6). . .
|
| Roy Lewallen, W7EL
```

[...] and after all that,
we finally draw a figure such the one at:

http://antennas.ee.duth.gr/Antennas_Notes_II_2005/23.htm

pezSV7BAXdag

602. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:27:34 UTC
From: eternalsquire@comcast.net
Message-ID: <1126808854.611763.265930@o13g2000cwo.googlegroups.com>
Source record: 70599

I'm deciding to go with a 20 meter 4-square because it can hopefully provide me with similar directivity and DX takeoff angle as a 20 meter beam but without the hassle or height of a tower. A dipole only has directivity in 2 directions, a 4 square can give me directivity in 4 directions with basic phasing and 8 directions high tech using ARRL suggestions. The EZNEC plot was pretty awesome.

The Eternal Squire

603. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:37:48 UTC
From: dplatt@radagast.org
Message-ID: <11ijfrs1plk1a5c@corp.supernews.com>
Source record: 70600

In article <Si4We.47593$FA3.15680@news-server.bigpond.net.au>,
David <groups@orbitcoms.com> wrote:

>Dave,
>
>If I scale that up to 915MHz, the dimensions are almost perfect for
>using RG58 coax instead of the copper tubing.The outer tube would be
>5.5mm and inner conductor 1.6mm. Being 50 Ohm coax, I assume therefore I
>do not need to slide the tap point up as their design did.

Bad assumption, I think. The portion of the matching section between
the tap point and the bottom is a shorted stub, which adds some
inductive reactance at the feedpoint. If you don't have it, you won't
get a good match.

Another approach I've seen to creating the necessary shorted stub is
to just use RG-58 and a simple BNC "T" connector. If you look at the
Sperrtopf antenna design, picture it made this way:

- one long piece of RG-58 1380 mm long, with the upper part of
the outer shield removed... that's your radiator, and the portion
of the matching section above the feedpoint.

- A second section of RG-58, about 100 mm long, with one end shorted.
That's the stub.

- The feedline RG-58.

Now, just connect all three together... radiator/matching section,
stub, and feedline. You can solder 'em, or add BNC plugs and use a
BNC "T". If you do the latter, remember to include the lengths of the
plugs and "T" into account.

> I suppose I
>should also add the choke coil at the antenna base for additional
>isolation of ground currents.

Certainly would not hurt to do so. You could either coil the coax
below the bottom of the matching section, or add a quarter-wave choke
sleeve, or just run the coax through a few ferrite beads.

>The article mentions the top part as 1/2 wave and bottom at 1/4 wave. If
>the bottom part of their design is 505mm then the antenna must be used
>for 2m band. If this is the case, how come the radiating element is 1480
>long ?

I think there's some confusion in the antenna schematic diagram,
compared with the text and parts list. The diagram appears to show

the upper (radiating) portion of the center element being 1480 mm, but the parts list indicates that the *total* length of the inner element is 1480 mm.

The latter seems more correct to me... it'd give you a radiating element of (1480 - 505) = 975 mm, which is a bit less than 1/2 physical wavelength at 2 meters. This seems reasonable to me given that the radiating element is fairly thick (10mm) rather than a thin wire.

>The Coaxial antenna mentioned in the article mentioned by Jerry looks
>good. The version they mention with a GAP would be simple to construct.
>It is a 1/4 wave radiating element at the top (earth braid stripped
>back), then 1/4 wave of full coax, then a "small" gap, then the
>transmission line. They do not mention the size of the gap but I assume
>any small gap has the same effect of isolating the reverse current ?

I'm not clear about the gap configuration either. The article sort of implies that its size has to be set experimentally, so that the leakage current through the gap is the right amount to cancel out the signal propagating back down the outside of the upper section. The article doesn't say whether the gap is supposed to go around the full circumference of the coax (completely isolating the upper and lower portions of the shield) or only partially around... I infer that it's the latter, because I don't see how the antenna could work with the shield sections fully separated.

>Should the actual lengths of these sections be modified by "K" depending
>on diameter of conductor or are they exact 1/4 wave length cuts ?

Well, I think it's a bit of a compromise.

The upper section (the coax center conductor and its surrounding dielectric) is going to have a velocity factor of not much less than 1.0. Cutting to 1/4 physical wavelength, and then trimming a bit, seems likely to work.

I think the lower section is likely to be a bit trickier, since there are actually two velocity factors involved. The radiating is done by the RF travelling back down the outside of the coax braid from the feedpoint, and this (like the upper section) will have a velocity factor close to 1.0, which suggests that the gap-to-feedpoint distance should be close to 1/4 physical wavelength.

HOWEVER: the signal travelling up the *inside* of the braid, like that travelling up the inner conductor towards the feedpoint, will be travelling more slowly - the velocity factor will be somewhere around .66 - .8 depending on cable type. This means that there will be more than 180 degrees of phase delay between the signal passing the gap going upwards (inside the cable) and the signal reaching the gap from above (travelling back down the outside of the cable). Hence, the gap leakage won't result in full cancellation of the signal travelling down the outside of the coax past the gap.

To get the two signals into accurate 180-degree phase opposition,
you'd need to make the distance from the feedpoint to the gap a bit
less than 1/4 physical wavelength, but a bit more than 1/4 of the
coax's usual electrical wavelength. Splitting the difference might
work fairly well.

I'm not sure what this will do to the antenna's feedpoint impedance /
return loss, though, and it'll probably tilt the antenna's radiation
pattern somewhat. You will probably need to experiment to get the
best compromise between antenna pattern and feedpoint impedance /
return loss / SWR. The same is true of the gap size and configuration.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

604. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:42:06 UTC
From: "Percival P. Cassidy" <Nobody@NotMyISP.net>
Message-ID: <3gjWe.15460$tc7.10245@fe03.lga>
Source record: 70601
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 09/15/05 01:08 pm Richard Clark tossed the following ingredients into
the ever-growing pot of cybersoup:

>>Perhaps you could show me where any of the offered definitions apply to an
>>HOA rule that prohibits non family members from residing in a home.

<snip>

> Christian charity is not fulfilled by a shrug of the HOA committee,
> and members who enjoy the veil of these rules won't find it any easier
> getting through the eye of the needle.

Amen, Brother.

"Perce"

605. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:51:10 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndijgku.1fdu.bit-bucket@shell.config.com>
Source record: 70602

```
On Thu, 15 Sep 2005 21:26:04 +0300, news-z-non-exist-z wrote:
>| "Roy Lewallen" <w7el@eznec.com>
>| wrote in message news:11iesohk2gnkf80@corp.supernews.com...
>|
>| Just about any antenna textbook will show you the calculation
>| [...]
>| ln(gamma * x) - (x^2)/(2!2) + (x^4)/(4!4) - (x^6)/(6!6). . .
>|
>| Roy Lewallen, W7EL
>
> [... ] and after all that,
> we finally draw a figure such the one at:
>
> http://antennas.ee.duth.gr/Antennas_Notes_II_2005/23.htm
>
> pezSV7BAXdag

Yes, but:
http://antennas.ee.duth.gr/Antennas_Notes_II_2005/22.htm

explains it best of all! HI!HI!

73
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK
```

606. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:51:11 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6906e$4329c2c1$471c63c6$4287@ALLTEL.NET>
Source record: 70603
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Weak Richard, but we love you no less.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:t3aji1hsepkfap9c8i3h0j3t592t8nedfd@4ax.com...
> On Thu, 15 Sep 2005 12:00:29 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >Perhaps you could show me where any of the offered definitions apply to
an
> >HOA rule that prohibits non family members from residing in a home.
>
> You said it yourself:
> >>refusing to take in a storm victim
> exactly conforms to
> >>>Intolerant toward others - 1645.
>
> otherwise, why would you offer your opinion
> >>while abhorrent to me
>
> Christian charity is not fulfilled by a shrug of the HOA committee,
> and members who enjoy the veil of these rules won't find it any easier
> getting through the eye of the needle.
>
> 73's
> Richard Clark, KB7QHC

607. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:51:47 UTC
From: eternalsquire@comcast.net
Message-ID: <1126810307.672860.211650@g49g2000cwa.googlegroups.com>
Source record: 70604

Roy,

I decided to go with a 20-meter 4 square. I wonder if any people have experience with 4-squares that they can share with me. I have considered some construction details give available materials, and I have some questions.

1) Can I shorten each element by using an inverted L rather than straight vertical, with a pipe as vertical part and a wire as horizontal part? I have heard that matching is far less of a problem this way also.

2) Where can I find or build a reasonably inexpensive phase box?

3) For the vertical part, I am wanting to a dig a hole 2 foot across by 3 foot down, and fill with concrete. Into this I would insert a 5 foot length of 1 1/2 inch steel support pipe about midway, so that 2 1/2 feet are above ground. Into this I would mount a 10 foot length of 3/4 inch steel pipe with a 2 1/2 foot insulated overlap of PVC pipe. The 3/4 inch steel pipe would be the bottom of the actual driven element. Into this I would mount a 10 foot length of 1/2 inch aluminum pipe with a 2 foot metallic contact overlap, and then I would finish with rod for vertical or wire for inverted L.

Question: how would the 2 1/2 foot overlap of a non-grounded metal support pipe interfere with radiation of the vertical element?

Thanks in advance,

The Eternal Squire

608. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:53:01 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a5d52$4329c32f$471c63c6$4326@ALLTEL.NET>
Source record: 70605

Not to mention the purchase of a casino and the construction of a Marina.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:1126805610_1361@spool6-east.superfeed.net...
> David G. Nagel wrote:
> > It's in the disaster plan to use busses for evacuation.
>
> One news service reported that billions earmarked for mass
> transit and levee improvements had been spent on advertising
> for the tourism industry.
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption
=----

609. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 18:55:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126810780_1703@spool6-east.superfeed.net>
Source record: 70606
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:
> Christian charity is not fulfilled by a shrug of the HOA committee,
> and members who enjoy the veil of these rules won't find it any easier
> getting through the eye of the needle.

The small "eye of the needle" gate at the walls of a city
was sized for human beings. It was camels that couldn't
get through it. Camels had to enter through the main gate.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

610. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 19:09:05 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <lFjWe.10719$Wd7.4963@newsread1.news.pas.earthlink.net>
Source record: 70607
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Richard Clark" <kb7qhc@comcast.net> wrote

>
> Christian charity is not fulfilled by a shrug of the HOA committee,
> and members who enjoy the veil of these rules won't find it any easier
> getting through the eye of the needle.
>

How is "Christian charity" different from other charity, and do I need to be a
member of your cult in order to get through the eye of the needle (and why would
I want to?)?

73, de Hans, K0HB
--
Homepage:
http://www.home.earthlink.net/~k0hb
Member:
ARRL http://www.arrl.org
SOC http://www.qsl.net/soc
VWOA http://www.vwoa.org
A-1 Operator Club http://www.arrl.org/awards/a1-op/
TCDXA http://www.tcdxa.org
MWA http://www.w0aa.org
TCFMC http://www.tcfmc.org
FISTS http://www.fists.org
LVDXA http://www.upstel.net/borken/lvdxa.htm
NCI http://www.nocode.org

611. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 19:13:28 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <9ogji11j72vmidsbque5h0utjt7mgj40b2@4ax.com>
Source record: 70608

On Thu, 15 Sep 2005 18:37:48 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>In article <Si4We.47593$FA3.15680@news-server.bigpond.net.au>,
>David <groups@orbitcoms.com> wrote:
>
>>Dave,
>>
>>If I scale that up to 915MHz, the dimensions are almost perfect for
>>using RG58 coax instead of the copper tubing.The outer tube would be
>>5.5mm and inner conductor 1.6mm. Being 50 Ohm coax, I assume therefore I
>>do not need to slide the tap point up as their design did.

Using RG58 at 900mhz is a lossy situation to be avoided.

>Bad assumption, I think. The portion of the matching section between
>the tap point and the bottom is a shorted stub, which adds some
>inductive reactance at the feedpoint. If you don't have it, you won't
>get a good match.

True. You can alter the lengths and use the stub section to cancel
the inductive or capacitive reactance set up by the radiating element
if present. If your radiating element is capacitive (tad shorter)
then the stub can be open which will reflect as inductive. It's only
a matter of juggling the numbers.

>Another approach I've seen to creating the necessary shorted stub is
>to just use RG-58 and a simple BNC "T" connector. If you look at the
>Sperrtopf antenna design, picture it made this way:
>
>- one long piece of RG-58 1380 mm long, with the upper part of
> the outer shield removed... that's your radiator, and the portion
> of the matching section above the feedpoint.
>
>- A second section of RG-58, about 100 mm long, with one end shorted.
> That's the stub.
>
>- The feedline RG-58.
>
>Now, just connect all three together... radiator/matching section,
>stub, and feedline. You can solder 'em, or add BNC plugs and use a
>BNC "T". If you do the latter, remember to include the lengths of the
>plugs and "T" into account.
>
>> I suppose I
>>should also add the choke coil at the antenna base for additional

>>isolation of ground currents.
>
>Certainly would not hurt to do so. You could either coil the coax
>below the bottom of the matching section, or add a quarter-wave choke
>sleeve, or just run the coax through a few ferrite beads.

If the antenna feed point is a matched condition what is the RF on the
coax shield from? It should be very small.

>>The article mentions the top part as 1/2 wave and bottom at 1/4 wave. If
>>the bottom part of their design is 505mm then the antenna must be used
>>for 2m band. If this is the case, how come the radiating element is 1480
>>long ?
>
>I think there's some confusion in the antenna schematic diagram,
>compared with the text and parts list. The diagram appears to show
>the upper (radiating) portion of the center element being 1480 mm, but
>the parts list indicates that the *total* length of the inner element
>is 1480 mm.

For 2m the correct length for the total center element is 1480 (58").
At 2m the halfwave length is in free space is 1M or for real elements
about 38" (.95M) or a K around .96-97.

>The latter seems more correct to me... it'd give you a radiating
>element of (1480 - 505) = 975 mm, which is a bit less than 1/2
>physical wavelength at 2 meters. This seems reasonable to me given
>that the radiating element is fairly thick (10mm) rather than a thin
>wire.

Correct. Thick elements do make a noticeable difference especially
when the ratio of wavelength to element diameter gets below 500:1.
The effect is elements are shorter, bandwidth wider.

>>The Coaxial antenna mentioned in the article mentioned by Jerry looks
>>good. The version they mention with a GAP would be simple to construct.
>>It is a 1/4 wave radiating element at the top (earth braid stripped
>>back), then 1/4 wave of full coax, then a "small" gap, then the
>>transmission line. They do not mention the size of the gap but I assume
>>any small gap has the same effect of isolating the reverse current ?

There is no requirement for the bottom to be coaxial. it can be
parallel lines (convential Jpole) in either case the antenna is a
1/2 lamda using a open section of transmission line for matching.

>I'm not clear about the gap configuration either. The article sort of
>implies that its size has to be set experimentally, so that the
>leakage current through the gap is the right amount to cancel out the
>signal propagating back down the outside of the upper section. The
>article doesn't say whether the gap is supposed to go around the full
>circumference of the coax (completely isolating the upper and lower
>portions of the shield) or only partially around... I infer that it's
>the latter, because I don't see how the antenna could work with the

>shield sections fully separated.

The gap is fully open. Also that gap sets up a transmisstion line
between the outer braid and the inner transmission line braid.
There is an interaction between the gap and braid section length.

>>Should the actual lengths of these sections be modified by "K" depending
>>on diameter of conductor or are they exact 1/4 wave length cuts ?

Yes. however the difference between K and free space will be maybe
a 2-4% difference. At 2m that comes out to around .5" (12mm) give or
take.

>Well, I think it's a bit of a compromise.
>
>The upper section (the coax center conductor and its surrounding
>dielectric) is going to have a velocity factor of not much less than
>1.0. Cutting to 1/4 physical wavelength, and then trimming a bit,
>seems likely to work.

Even without insulation it's lower than 1.0 (likely .98 or so)
but insulation will increase that.

>I think the lower section is likely to be a bit trickier, since
>there are actually two velocity factors involved. The radiating is
>done by the RF travelling back down the outside of the coax braid from
>the feedpoint, and this (like the upper section) will have a velocity
>factor close to 1.0, which suggests that the gap-to-feedpoint distance
>should be close to 1/4 physical wavelength.
>
>HOWEVER: the signal travelling up the *inside* of the braid, like that
>travelling up the inner conductor towards the feedpoint, will be
>travelling more slowly - the velocity factor will be somewhere around
>.66 - .8 depending on cable type. This means that there will be more
>than 180 degrees of phase delay between the signal passing the gap
>going upwards (inside the cable) and the signal reaching the gap from
>above (travelling back down the outside of the cable). Hence, the gap
>leakage won't result in full cancellation of the signal travelling
>down the outside of the coax past the gap.
>
>To get the two signals into accurate 180-degree phase opposition,
>you'd need to make the distance from the feedpoint to the gap a bit
>less than 1/4 physical wavelength, but a bit more than 1/4 of the
>coax's usual electrical wavelength. Splitting the difference might
>work fairly well.
>
>I'm not sure what this will do to the antenna's feedpoint impedance /
>return loss, though, and it'll probably tilt the antenna's radiation
>pattern somewhat. You will probably need to experiment to get the
>best compromise between antenna pattern and feedpoint impedance /
>return loss / SWR. The same is true of the gap size and configuration.

If properly matched the feedpoint will be 50ohms and the return loss
will be reflective of a good match.

Allison
Kb1GMX

612. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 19:21:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ociji1h08oepv83fp78s0v0corahkfu39f@4ax.com>
Source record: 70609

On Thu, 15 Sep 2005 19:13:28 GMT, nospam@nouce.bellatlantic.net wrote:

>If the antenna feed point is a matched condition what is the RF on the
>coax shield from? It should be very small.

Hi OM,

You have just hit the trip-wire of a common misunderstanding.

73's
Richard Clark, KB7QHC

613. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 19:35:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jhiji1h4mkpile943ko30o6mnmc4dpocna@4ax.com>
Source record: 70610
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 15 Sep 2005 19:09:05 GMT, "Kï¿½HB" <groupk0hb@earthlink.net>
wrote:

>How is "Christian charity" different from other charity

Hi Hans,

I will leave that to other faiths to describe for themselves. One
distinct difference between Christian charity and Islamic charity is
that Muslims are commanded to give the expected portion of their
charity directly to the afflicted. This means hand-to-hand.

>, and do I need to be a
>member of your cult in order to get through the eye of the needle (and why would
>I want to?)?

Complete the allusion and enlighten us to which cult offers fare
discounts for buying the way to Heaven. Of course, if you have no
interest in the destination, then the subject is rather transparent
and hardly requires comment.

73's
Richard Clark, KB7QHC

614. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 19:43:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126813628_2069@spool6-east.superfeed.net>
Source record: 70612
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Kï¿½HB wrote:

> "Richard Clark" <kb7qhc@comcast.net> wrote
>>Christian charity is not fulfilled by a shrug of the HOA committee,
>>and members who enjoy the veil of these rules won't find it any easier
>>getting through the eye of the needle.
>>
> How is "Christian charity" different from other charity, and do I need to be a
> member of your cult in order to get through the eye of the needle (and why would
> I want to?)?

Hans, Richard has obviously followed Christian principles by
selling all that he owns, giving the proceeds to the poor,
and becoming a pennyless missionary. But wait, he appears not
to have sold his computer yet. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

615. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 19:44:19 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dgciuj$fa0$1@mailhub227.itcs.purdue.edu>
Source record: 70611

This is useful information to know. I don't know why the section about small loops in the Antenna Handbook doesn't mention this. BTW, how far does the near-field extend?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dgcd5g$j7b$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>A vertical conductor, a metal tube, running diametrically across a
> large magloop with the tuning capacitor at the top, has no effect
> either on radiating efficiency or the radiation pattern. It may as
> well not be there apart from providing a prop or support for the
> antenna itself. It will, of course, need to be well-insulated from the
> high-voltage parts.
>
> In general, provided the longest dimension of foreign metalwork is
> much less than 1/2-wavelength, and there is not much of it, negligible
> loss will be induced in it. This is due to the very low loss
> resistance of most metals.
>
> Metalwork in the vicinity of beam antennas may upset only the
> radiation pattern.
>
> Short lengths of foreign metalwork in close vicinity of tramsmission
> lines, such as open-wire and ladder lines, will cause neglible loss
> but will slightly reduce the line impedance Zo which might affect the
> L and C settings of the tuner.
>
> But beware of "semi-conductors", like damp wood such as foliage and
> tree trunks, in the near-fields of antennas and lines. Their higher
> impedance provide a better power match to the 'generator'.
>
> You can have as much foreign polyethylene as you like.
> ----
> Reg.
>
>

616. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 20:04:17 UTC
From: news-z-non-exist-z <z@z.z.z>
Message-ID: <dgck47$5oj$1@usenet.otenet.gr>
Source record: 70613

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrndijgku.1fdu.bit-bucket@shell.config.com...
| On Thu, 15 Sep 2005 21:26:04 +0300, news-z-non-exist-z wrote:
| [...]
| Yes, but:
| http://antennas.ee.duth.gr/Antennas_Notes_II_2005/22.htm
|
| explains it best of all! HI!HI!
|
| 73
| Jonesy

d;^)

617. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 20:33:13 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <dUkWe.10739$Wd7.2389@newsread1.news.pas.earthlink.net>
Source record: 70614
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Cecil Moore" <mycall@arrl.net> wrote

>
> Hans, Richard has obviously followed Christian principles by
> selling all that he owns, giving the proceeds to the poor,
> and becoming a pennyless missionary. But wait, he appears not
> to have sold his computer yet. :-)
> --
> 73, Cecil, http://www.qsl.net/w5dxp
>

Cecil, you are one dangerous dude! Welcome back. I missed you.

73, de Hans, K0HB
--
Homepage:
http://www.home.earthlink.net/~k0hb
Member:
ARRL http://www.arrl.org
SOC http://www.qsl.net/soc
VWOA http://www.vwoa.org
A-1 Operator Club http://www.arrl.org/awards/a1-op/
TCDXA http://www.tcdxa.org
MWA http://www.w0aa.org
TCFMC http://www.tcfmc.org
FISTS http://www.fists.org
LVDXA http://www.upstel.net/borken/lvdxa.htm
NCI http://www.nocode.org

618. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 21:49:52 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <jaSdnSmgnLp7cLTeRVn-1Q@comcast.com>
Source record: 70615
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:31f74$43299abf$471c63c6$12083@ALLTEL.NET...
> Perhaps you could show me where any of the offered definitions apply to
> an
> HOA rule that prohibits non family members from residing in a home.
>
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:4o4ji1p26o2mcctbkfbuugpan1qmlt05nd@4ax.com...
>> On Thu, 15 Sep 2005 10:41:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >A few moments spent perusing a dictionary will show that simply refusing
> to
>> >take in a storm victim, while abhorrent to me, does not make one a
>> >bigot.
>> >
>> from the Oxford English Dictionary:
>>
>> Bigot. 1598. 1. A hypocrite. 2. A superstitious person - 1664. 3. A
>> person obstinately and unreasonably wedded to a creed, opinion or
>> ritual - 1661. Intolerant toward others - 1645.
>>
>> Hardly seems that the meaning has veered from this in the past 340
>> years.
>>
>> 73's
>> Richard Clark, KB7QHC

Looks to me like all after number 2 apply especially that "unreasonably..."
since they chose to not consider accommodating the victims of the
catastrophe until publicity shined upon them.

Dee D. Flint, N8UZE

619. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 21:57:11 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <baa58$4329ee51$471c63c6$10187@ALLTEL.NET>
Source record: 70616

Suggest you do a google search for baluns coupled with each of the following
Maxwell, Cebik, and Lewellen.

You will become enlightened grasshopper...

<nospam@nouce.bellatlantic.net> wrote in message
news:9ogji11j72vmidsbque5h0utjt7mgj40b2@4ax.com...
> On Thu, 15 Sep 2005 18:37:48 -0000, dplatt@radagast.org (Dave Platt)
> wrote:
=

> If the antenna feed point is a matched condition what is the RF on the
> coax shield from? It should be very small.
>

620. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 21:57:56 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1126821476.840433.194860@g49g2000cwa.googlegroups.com>
Source record: 70617
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:
> On Thu, 15 Sep 2005 19:09:05 GMT, "KØHB" <groupk0hb@earthlink.net>
> wrote:
>
> >How is "Christian charity" different from other charity
>
> Hi Hans,
>
> I will leave that to other faiths to describe for themselves. One
> distinct difference between Christian charity and Islamic charity is
> that Muslims are commanded to give the expected portion of their
> charity directly to the afflicted. This means hand-to-hand.
>
> >, and do I need to be a
> >member of your cult in order to get through the eye of the needle (and why would
> >I want to?)?
>
> Complete the allusion and enlighten us to which cult offers fare
> discounts for buying the way to Heaven. Of course, if you have no
> interest in the destination, then the subject is rather transparent
> and hardly requires comment.

Discounts I don't know but Chatholic dogma still provides for the sale
of Indulenges for sin, even allowing them to be purchased for yone
firend and relitives post mortem

Luther thought the practice pro and so do most prods groups
>
> 73's
> Richard Clark, KB7QHC

621. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 22:47:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ijug15egav390@corp.supernews.com>
Source record: 70618

There's that "takeoff angle" again. Having a good "takeoff angle" is no guarantee of good DX performance, and isn't a valid way to compare the performance of two antennas.

You should model both the beam and the 4-square. Make sure you include a realistic amount of ground loss resistance for whatever ground system you think you can put down for the 4-square. Superimpose their elevation patterns on the same plot, and see which really does best at low angles. If you don't want to go to the trouble of modeling a beam, you can model a simple dipole which has almost the same elevation pattern as a beam of a few elements (in the forward direction) at the same height. Mentally add the beam's gain relative to a dipole to the dipole's pattern. See if the 4-square really is as good. It might change your mind.

Roy Lewallen, W7EL

eternalsquire@comcast.net wrote:
> I'm deciding to go with a 20 meter 4-square because it can hopefully
> provide me with similar directivity and DX takeoff angle as a 20 meter
> beam but without the hassle or height of a tower. A dipole only has
> directivity in 2 directions, a 4 square can give me directivity in 4
> directions with basic phasing and 8 directions high tech using ARRL
> suggestions. The EZNEC plot was pretty awesome.
>
> The Eternal Squire
>

622. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 23:06:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ijvj3ef7flq21@corp.supernews.com>
Source record: 70619

eternalsquire@comcast.net wrote:
> Roy,
>
> I decided to go with a 20-meter 4 square. I wonder if any people have
> experience with 4-squares that they can share with me. I have
> considered some construction details give available materials, and I
> have some questions.

I've built and used a few, for 40 meters.

> 1) Can I shorten each element by using an inverted L rather than
> straight vertical, with a pipe as vertical part and a wire as
> horizontal part? I have heard that matching is far less of a problem
> this way also.

You can make a 4 square from any kind of element. EZNEC can tell you what effect the element shape will have. I strongly recommend against designing the antenna to get the best or easiest match. Design the antenna for the best performance, then design whatever matching arrangement you need in order to match it. An exception to this general rule is that antennas with an exceptionally low resistance or high reactance might not be practical because of the problem of matching system loss, so such an antenna might need redesign in order to be practical.
>
> 2) Where can I find or build a reasonably inexpensive phase box?

Chapter 8 of the ARRL Antenna Book describes how to design one. See also "The Simplest Phased Array Feed System - That Works" and accompanying program Simpfeed, available from http://eznec.com/Amateur/Articles/.

> 3) For the vertical part, I am wanting to a dig a hole 2 foot across by
> 3 foot down, and fill with concrete. Into this I would insert a 5
> foot length of 1 1/2 inch steel support pipe about midway, so that 2
> 1/2 feet are above ground. Into this I would mount a 10 foot length
> of 3/4 inch steel pipe with a 2 1/2 foot insulated overlap of PVC
> pipe. The 3/4 inch steel pipe would be the bottom of the actual
> driven element. Into this I would mount a 10 foot length of 1/2 inch
> aluminum pipe with a 2 foot metallic contact overlap, and then I would
> finish with rod for vertical or wire for inverted L.

Wow, for a 20 meter 4-square? For each element on 40, I drove a 1-1/4" 8 foot galvanized chain link fence line pole 4 feet into the ground. (Our soil is clay.) I cut a piece of heavy wall PVC pipe lengthwise into quarters for insulators, and clamped the element to the line pole with muffler clamps with a couple of pieces of the split PVC pipe in between.

The elements are three pieces of telescoping 6061-T6 tubing, beginning with, as I recall, 1-1/8" at the bottom. They've been up for around 20 years now and survived a couple of pretty strong wind storms.

>
> Question: how would the 2 1/2 foot overlap of a non-grounded metal
> support pipe interfere with radiation of the vertical element?

Any shunt impedance will reduce the null depth if the array is adjusted for the correct base current ratio. This is because a different fraction of the current will be diverted from each element because of their differing base impedances. However, I've found that the 4 foot overlap I have doesn't reduce it noticeably. But my overlapping pipes are parallel and, if I understand your description, yours will be coaxial. That'll result in a lot more shunt capacitance, and a correspondingly greater effect on the null. The main lobe won't be affected much.

Roy Lewallen, W7EL

623. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-15 23:07:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ijvm28fliv45e@corp.supernews.com>
Source record: 70620

Fred W4JLE wrote:
> Suggest you do a google search for baluns coupled with each of the following
> Maxwell, Cebik, and Lewellen.
> . . .

Searching for Lewallen will probably be more fruitful than Lewellen.

Roy Lewallen, W7EL

624. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 00:52:04 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <cd010$432a174c$471c63c6$31732@ALLTEL.NET>
Source record: 70621

Mea Culpa, my fingers slipped when typing, and I in a senior moment failed
to proof.

In any event your piece on baluns is part of my reference library.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11ijvm28fliv45e@corp.supernews.com...
> Fred W4JLE wrote:
> > Suggest you do a google search for baluns coupled with each of the
following
> > Maxwell, Cebik, and Lewellen.
> > . . .
>
> Searching for Lewallen will probably be more fruitful than Lewellen.
>
> Roy Lewallen, W7EL

625. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 01:31:19 UTC
From: David <groups@orbitcoms.com>
Message-ID: <HfpWe.48509$FA3.16493@news-server.bigpond.net.au>
Source record: 70622

Thanks everyone for your feedback to my posting.

I have now been given a lot of information but am starting to go around
in circles.
It seems many people are used to operating at lower frequencies with
huge lengths of wire and hundred of watts of power.

In my application, I am looking for an omni-directional antenna with
reasonable "gain" and fairly low radiation angle. The application
operates with Data at 920 MHz where power levels are below 1 watt. The
antenna must either fix directly to the enclosure (which can be plastic
or metal and is usually only around 100mm x 60mm x 40mm) or within 2-3m
of the enclosure. Therefore, a unit that does not require ground plane
style antenna would be good.
The end-fed antenna style is good because I can build it into the end of
a SMA connector and use 1/4" nylon tubing as the Radome.

Now I just need what goes in the Radome to complete the unit. It is
difficult to install Tee BNC connectors and mid tap points on coils or
transmission lines etc. Stripping coax cable and coiling the coax on the
outside of the Radome is fine as I can cover the unit later with heatshrink.

In my search it seemed the J-pole was a good contender due to its
performance and low radiation angle and ground independence. The shorted
stub version was troublesome but the open stub looked promising.

It appeared as though I could simply use coaxial cable to create the
antenna and fold back part of the coax over 1/4 wave section.

Some have suggested coiling cable to act as a choke at the feed point
and others have mentioned not to do this.

Would anyone by chance have details of a whip antenna that is proven to
work and is similar to what I am trying to construct that I could use as
a starting point ?

Thanks in advance.

Roy Lewallen wrote:
> Fred W4JLE wrote:
>
>> Suggest you do a google search for baluns coupled with each of the
>> following
>> Maxwell, Cebik, and Lewellen.
>
> > . . .
>

> Searching for Lewallen will probably be more fruitful than Lewellen.
>
> Roy Lewallen, W7EL

626. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 01:43:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126835197_2699@spool6-east.superfeed.net>
Source record: 70623

David wrote:
> Would anyone by chance have details of a whip antenna that is proven to
> work and is similar to what I am trying to construct that I could use as
> a starting point ?

In "Antennas For All Applications", by Kraus and Marhefka, third edition,
page 824, a 1/2WL over 1/4WL collinear array vertical is described that
allegedly has a gain of 6.4 dBi. There is a 180 deg. phase reversing coil
between the bottom 1/4WL and the top 1/2WL. The entire vertical should be
less than one foot long. The 180 deg. phase reversing coil is the tricky
part.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

627. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 01:46:12 UTC
From: Ron <apositiveplace@netscape.net>
Message-ID: <FtpWe.2946$P34.2526@okepread07>
Source record: 70624
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Gee. I'm actually glad that my initial posting of this link (the one that was up before Charlie's by about 10 hours) didnt go out to all these other groups, only to alt.ham-radio.vhf-uhf. Far to many spastic individuals replying with unrelated and often inane comments. How come I'm not surprised.

Ron

"Charlie" <chas@aol.com> wrote in message news:11htogetcauugb1@news.supernews.com...
> 1. http://www.msnbc.msn.com/id/9228945/
>
> --
>
> Charlie - AD5TH
> www.ad5th.com
>
>
>
>
>
>
>

628. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 01:52:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <r4Gdnc4kKfoHuLfenZ2dnUVZ_smdnZ2d@comcast.com>
Source record: 70625
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

an_old_friend wrote:

SNIPPED

>
> Discounts I don't know but Chatholic dogma still provides for the sale
> of Indulenges for sin, even allowing them to be purchased for yone
> firend and relitives post mortem
>
> Luther thought the practice pro and so do most prods groups

"friend" I challenge you to quote an official Catholic source to support your 'sale' assertion!!

For those who may be interested in putting this outrageous statement to rest, I suggest a trip to your local library and read the official position of the Catholic Church. It is openly published in the public documents of the Second Vatican Council, in a book titled "VATICAN COUNCIL II - The Councilar and Post Councilar Documents", Section 1 titled: "The Constitution on The Sacred Liturgy", dated 4 December 1963, Sub-section 1-6, dated 1 January 1967, titled "Indulgentiarum Doctrina" paragraphs 1 through 18.

Please note that "an_old_friend" has stated another outrageously erroneous misuse of language. 'friend' states "DOGMA". The official pronouncement is DOCTRINAL, not Dogmatic. There is a very significant distinction between the two words.

It has NEVER been the DOGMA of the Catholic Church to sell indulgences. PERIOD! A period of clerical abuse of indulgences, contrary to the Doctrinal position of the Church, did exist in history. Martin Luther was correct to cite this failure in clergy practice. The abuse was censured in the Council of Trent [ca 1545 - 1563].

Note[1] to 'an_old_friend': be sure of your facts before you post outrageously erroneously statements.

Note[2] to 'an_old_friend': your 'prod' sources are also in error.

Signed Ham Op, Catholic Clergyman

629. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 02:26:25 UTC
From: David <groups@orbitcoms.com>
Message-ID: <l3qWe.48528$FA3.39397@news-server.bigpond.net.au>
Source record: 70526

Cecil,

Thanks for the book reference.

I searched amazon for it but they are charging $187 for it.

Do you know where I might find a second hand copy ?

Regards

David

Cecil Moore wrote:
> David wrote:
>
>> Would anyone by chance have details of a whip antenna that is proven
>> to work and is similar to what I am trying to construct that I could
>> use as a starting point ?
>
>
> In "Antennas For All Applications", by Kraus and Marhefka, third edition,
> page 824, a 1/2WL over 1/4WL collinear array vertical is described that
> allegedly has a gain of 6.4 dBi. There is a 180 deg. phase reversing coil
> between the bottom 1/4WL and the top 1/2WL. The entire vertical should be
> less than one foot long. The 180 deg. phase reversing coil is the tricky
> part.

630. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 02:49:08 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11ikci8dunmjbdc@corp.supernews.com>
Source record: 70527

Dear Group:
Long, long experience with angles above the horizon that are used by DX signals (at HF) indicates that the most useful angles are between 2 and 12 degrees. Comparing the expected gain of antennas at 6 degrees provides a good figure-of-merit.

That said, if one has a low, horizontally polarized antenna with very little gain at 6 degrees, you might still work DX using more than an optimum number of hops (angle of more than ten degrees). However, you will work DX fewer days per month than someone who gets significant gain at angles smaller than ten degrees.

I emphasize what Roy has said: the so-called take-off-angle (equal to the smallest angle at which peak gain occurs) of an antenna is not necessarily an indicator of DX performance.

Another example is the case of a horizontally polarized antenna that is over 3 WL high: it has a small TOA but is likely to have a null at an important angle smaller than 12 degrees. In other words: the too-high-antenna works very well some of the time, but a lower antenna works better at other times.

A useful goal for the (single) optimum (for DX) antenna is an antenna that has its second null (first null is at zero degrees) at an angle greater than 12 degrees and a first maximum (what is called by many the TOA) between 2 and 12 degrees.

The actual angle used at the transmitter end of a DX circuit is sometimes quite different from that used at the receiver end.

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Bill Turner" <noway@nohow.com> wrote in message
news:xn0e78a5u2wg45000@cnews.newsguy.com...
> Roy Lewallen wrote:
>
> >
> > An antenna doesn't have a single "radiation angle". It radiates at
> > all angles. The relevant question is how much does it radiate at the
> > particular angle of interest, not at which angle does it radiate the
> > most.
> ~~~~~~
>
> That's true, except few if any hams have a specific "angle of

> interest", since different angles are used at different times. For
> most of us, the angle of maximum radiation gives a general indication
> of how the antenna will perform. A better indication would be a
> graphical representation. It's always a problem when one tries to
> reduce a complex situation like this down to a single number.
>
> 73, Bill W6WRT

631. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 04:05:23 UTC
From: richardharrison@webtv.net
Message-ID: <24625-432A4483-301@storefull-3253.bay.webtv.net>
Source record: 70528

Cecil, W5DXP wrote:
"The 180 deg. phase reversing coil is the tricky part."

For UHF, you might prefer to use a 1/4-wave short-circuited stub in place of a coil to reverse the phase. My 19th edition of the ARRL Antenna Book shows such an antenna, "the super J-pole on page 16-25. At other frequencies, this might be called a "Franklin Antenna". It`s a 1/2-wave in-phase with another 1/2-wave, one mounted directly over the other.

The super J-pole is designed for 144 MHz, but can be scaled for any frequency with proper mechanical allowances. Gain is about 6 dB over a 1/4-wave whip.

Best regards, Richard Harrison, KB5WZZI

632. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 04:44:24 UTC
From: David <groups@orbitcoms.com>
Message-ID: <I4sWe.48637$FA3.22109@news-server.bigpond.net.au>
Source record: 70530

Richard,

I have the 20th edition. Looking at the picture, I would have difficulty building this into the end of a SMA plug to sit on top of the radio modem.

Regards

David

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "The 180 deg. phase reversing coil is the tricky part."
>
> For UHF, you might prefer to use a 1/4-wave short-circuited stub in
> place of a coil to reverse the phase. My 19th edition of the ARRL
> Antenna Book shows such an antenna, "the super J-pole on page 16-25. At
> other frequencies, this might be called a "Franklin Antenna". It`s a
> 1/2-wave in-phase with another 1/2-wave, one mounted directly over the
> other.
>
> The super J-pole is designed for 144 MHz, but can be scaled for any
> frequency with proper mechanical allowances. Gain is about 6 dB over a
> 1/4-wave whip.
>
> Best regards, Richard Harrison, KB5WZZI
>

633. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 04:44:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgdik0hfq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70529

"John N9JG" wrote
> This is useful information to know. I don't know why the section
about small
> loops in the Antenna Handbook doesn't mention this. BTW, how far
does the
> near-field extend?
>
==========

It's because neither the authors nor the editors were aware of it.

The near-field on the surface of an antenna's conductors starts off at a very high value. The far-field is zero at zero distance.

The near-field fades into the distance just the same as the ar-field - only much faster. It also has a radiation pattern which depends on an antenna's structure.

For argument's sake, for an isotropic antenna (which doesn't exist), at a distance of 1/2/Pi = 1/6 of a wavelength from the antenna, the near-fields and far-fields are equal to each other but differ in phase. They both exist together and their effects on foreign bodies are inseparable from a measurements point of view. They exist seperately at all distances only as a mathematical fiction.

The near-field of open-wire transmission lines is sensibly zero at a distance of 4 or 5 times the wire spacing but the radiation field is finite and very small. The radiation field increases with wire spacing and is a maximum when spacing is about 1/2-wavelength which nobody ever uses. This accounts for the lack of use of low-loss open-wire lines at UHF and higher frequencies.

Back to Magloops where the measurement unit is loop diameter rather than wavelength and the near-field is mainly magnetic. The magnetic field falls off at a rate proportional to the cube of distance. I would be very happy with a distance of 1/2 the loop diameter or more between the loop and large foreign bodies such as the ground.

Highly conductive metallic bodies merely slightly detune the loop with little additional loss.

Reg.

634. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 05:04:00 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1126847040.057235.156250@g47g2000cwa.googlegroups.com>
Source record: 70531
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

Marshall Goldblatt wrote:
> Dan/W4NTI wrote:
> > "Marshall Goldblatt" <w4emb@myacc.net> wrote in message
> > news:3op5feF73ibjU1@individual.net...
> >
> >>Hello all,
> >>
> >>I have a Tailtwister (TX-2) rotor mounted on a Rohn 25 foldover tower.
> >>While the tower itself appears to have survived intact, hurricane
> >>Katrina snapped the mast and destroyed the antennas. I need to fold the
> >>tower over to work in it, and likely leave it folded over for a fairly
> >>extended period. This will leave the top of the tower and the rotor
> >>upside down.

Fold the tower then cut the rotator loose and store it indoors . . . ??

w3rv

> >> Unfortunately, it is still the rainy season here, and the
> >>last time I needed to do this, rain water got into the rotor and settled
> >>in the bell, causing rust and other corrosion damage inside the rotor,
> >>because it is only weather protected when it is upright. I would like
> >>to seal the rotor to prevent this from happening again, but none of the
> >>ideas I've had so far (wrapping it in plastic garbage bags, using duct
> >>tape, using sealing foam) are usable, either because they don't seal
> >>well enough to keep water out or because stuff may get up inside the
> >>rotor where I can't get it out.
> >>
> >>So, does anyone have any suggestions?
> >>
> >>73, Marshall - W4EMB
> >>
> >>
> >
> >
> > Maybe ... get some axle grease, or RTV sealant would be better, perhaps.
> > Both should peal off reasonable well.
> >
> > One other thing I am concerned with tho. I always heard that the rotar
> > must be kept in a vertical position or the grease would drain out of the
> > bearings? Wives tale ??? I don't know. But I always keep mine vertical
> > when stored.
>
> Don't know about that, but there's no way to keep the rotor vertical

> when lowering a foldover tower... In any case, it's been folded over
> (for long periods) many times, and I've never noticed a bearing problem.

635. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 06:22:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m0pki151s3t256sknvjnlp5ffkqo1cfepd@4ax.com>
Source record: 70532

On Fri, 16 Sep 2005 02:26:25 GMT, David <groups@orbitcoms.com> wrote:

>Do you know where I might find a second hand copy ?

Hi David,

Amazon is possibly the worst source for used titles. Instead, try:
http://www.bookfinder.com/search/?ac=sl&st=sl&qi=XCr6im8ga9Nk0JxtGz,ZitOlJLs_6236712546_2:2:2
where there are roughly 40 copies available ranging from $28 to
Amazon's gold plated offer.

73's
Richard Clark, KB7QHC

636. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 06:23:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgdodj$c5n$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70533

To Novices -

It is use of the term "take off angle" which causes all the confusion surrounding DX and the "best" take off angles. It is a misnomer.

The elevation angle of a radio path between two stations is purely a geometric function of their locations on the Earth's surface and the heights of ionospheric reflecting layers. It has nothing whatever to do with either of the antennas or ground conditions - except that it is the best elevation angle at which an antenna beam should be pointing.

If, purely by coincidence, the "take off angle" indicated by Eznec happens to be the same as the exceedingly changeable "path elevation angle" then all is well and good.

The true "take off angle" having maximum gain (another misnomer) for any vertical antenna is always zero degrees, ie., it corresponds to the always existent very strong groundwave. Whereas Eznec always reports the groundwave strength as being zero. It is of no use in the prediction of often-used ground waves between stations.

Whenever a resistive ground is involved, programs like Eznec do not produce the true radiation pattern of an antenna. Not that there is anything incorrect with Eznec. It is just the confusing description of what it displays.

Reg.

637. Re: best HF antenna system next to a trailer?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 08:06:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ikv8hhmvtlgd9@corp.supernews.com>
Source record: 70534

Reg Edwards wrote:
> . . . Whereas Eznec always
> reports the groundwave strength as being zero. . .

If you're using the strict definition of "groundwave" as being the field at an elevation angle of zero, only EZNEC's far field analysis reports it as zero, because (as the manual explains, and as I've explained here several times before) the far field results are valid at a distance beyond the point where the surface wave has decayed to essentially zero -- a few miles at HF. And at that distance, the field at zero elevation angle is zero if the ground conductivity is finite. If the surface wave strength is wanted, it can easily be found using EZNEC's near field calculation, which calculates the total field at any point in space -- including just above the ground surface.

It is of no use in the
> prediction of often-used ground waves between stations.

Unless you use the near field results, which do give an accurate indication of the field at any point in space. I assume you've just forgotten the several times I've explained that to you. Maybe this will be the magic time it'll sink in.

> Whenever a resistive ground is involved, programs like Eznec do not
> produce the true radiation pattern of an antenna. . .

For sure, the modeling of ground is the weakest point of all antenna modeling programs including EZNEC. But the pattern is generally a good representation of reality. Remembering, of course, that the far field pattern is just that -- the pattern at a distant point at which the surface wave has decayed to zero.

A graphical pattern which includes the surface wave component would be different at every distance from the antenna up to the distance where the surface wave has decayed to essentially zero (a few miles at HF). The field strength at angles greater than zero would be of little interest to amateurs doing local communication by surface wave. Those who want to know the field strength at ground level at any distance can easily get this information from EZNEC's near field analysis (which reports the total field, not just the near field).

Most amateurs who are interested in local communication over a few miles using surface waves don't need to see the overall elevation pattern, and they can get numerical results of the surface field strength from the near field analysis. Amateurs communicating by sky wave, by far the more common situation, can benefit from the graphical results afforded by

EZNEC's far field elevation pattern.

Not that there is
> anything incorrect with Eznec. It is just the confusing description
> of what it displays.

It's interesting that in the 15 years EZNEC and its predecessor ELNEC have been available, and the thousands of users, no more than a half dozen people have expressed any confusion regarding its far and near field analysis. And none of the others has required repeated explanations. But some people are sure to have more trouble with the concept than others.

It's explained in the EZNEC manual, and I always welcome questions and suggestions which would help me make it more clear. I am, however, resigned to the fact that some small number of people aren't capable of, and some simply aren't interested in, understanding.

Because of your deep interest in surface wave propagation and field strength prediction, and your characterization of it as "often-used", you must do a lot of communication by this mode. What bands do you use, and what sort of range do you reliably communicate over? How many hams are within this radius whom you talk to?

Roy Lewallen, W7EL

638. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 11:45:30 UTC
From: "Edward A. Feustel" <efeustel@direcway.com>
Message-ID: <N9idnUMgF7L5LbfeRVn-1A@giganews.com>
Source record: 70535

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:dgc7u7$9h8$1@mailhub227.itcs.purdue.edu...
>I am in the planning stage for a 160 meters compact loop antenna. A loop
>antenna may not have metal nearby, so I am planning to use a wooden pole to
>support the top of the loop. In the ARRL Antenna handbook, it states that
>"W5QJR made a pole of 2 x 4-inch lumber with 1 x 4-inch boards on either
>side to form an I section. He held the boards together with 1/4-inch bolts,
>2 feet apart and tied rope guys to the top. This made an excellent mast up
>to 50 feet high."
>
> Does anyone have any comments on the feasibility of an unguyed pole using
> this same type of construction? Naturally, a portion of the pole would
> have to be underground, and perhaps set in concrete. What about a 50 feet
> pole, with 10 feet underground ,which would give you a 40 foot mast?
>
> An alternative would be to have a contractor install a 40 feet utility
> pole, but I assume the wooden pole described above would be less of an
> eyesore (to the neighbors) than a utility pole.
>
> Any comments and advice will be appreciated.
> John, N9JG
>
If you really want to have the "mast" unsupported, consider a 50-60'
telephone pole
properly installed (for your type of soil) with one end buried deeply.
Perhaps you could
use a fiberglass extension from its top to support the antenna.

It would be worth your while to have a mechanical engineer calculate your
design's survival
characteristics in high wind and compare it with 100 year records for high
wind speed. Also you
might consider the prospect of icing if you live in a northern climb -- I
assume that the mast
is at a corner of the loop.
Regards,
Ed, N5EI

639. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 13:37:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126878036_16053@spool6-east.superfeed.net>
Source record: 70536

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "The 180 deg. phase reversing coil is the tricky part."
>
> For UHF, you might prefer to use a 1/4-wave short-circuited stub in
> place of a coil to reverse the phase. My 19th edition of the ARRL
> Antenna Book shows such an antenna, "the super J-pole on page 16-25. At
> other frequencies, this might be called a "Franklin Antenna". It`s a
> 1/2-wave in-phase with another 1/2-wave, one mounted directly over the
> other.

The stub is a good idea and can be mechanically self-supporting at
920 MHz. However, making the bottom section 1/4WL (as Kraus suggests)
instead of 1/2WL would make for a low feedpoint impedance

> The super J-pole is designed for 144 MHz, but can be scaled for any
> frequency with proper mechanical allowances. Gain is about 6 dB over a
> 1/4-wave whip.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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640. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 14:22:07 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <spkli1paa9iacaipue0uatav6er0q0np2a@4ax.com>
Source record: 70537

Searching Maxwell on baluns on Google will turn up mostly baluns for
sale by various dealers, not how they work. Searching Lewallen will
turn up good data in answering your question on how does the current
get onto the outside of the shield braid.

If you want Maxwell's data on how the current gets there go to his web
page at www.w2du.com, Click on 'Read Chapters from Reflections 2',
and then click on Chapter 21, "Some Aspects of the Balun Problem."

Walt, W2DU

On Thu, 15 Sep 2005 17:57:11 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Suggest you do a google search for baluns coupled with each of the following
>Maxwell, Cebik, and Lewellen.
>
>You will become enlightened grasshopper...

641. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 14:26:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126880994_16131@spool6-east.superfeed.net>
Source record: 70538

David wrote:
> Do you know where I might find a second hand copy ?

Google "used books". I've had good luck with
www.abebooks.com

I have also run across foreign published books that
are about half priced and new. Don't recall the URL.

But I've given you all the information in Kraus' book
about that particular antenna. Laid on its side:

```
|
|----------/////--------------------
| 1/4WL coil 1/2WL
```

The coil is a 180 deg. phase reversing coil. If I
remember correctly, that means it is self-resonant.
If that's right, it probably means that a trap
would work instead of a coil. The impedance at the
bottom and top of the coil is very high so it seems
to me that instead of blocking the signal, like an
ordinary trap, a trap would merely reverse the phase.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

642. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 14:43:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126882039_16351@spool6-east.superfeed.net>
Source record: 70539

Cecil Moore wrote:
> I have also run across foreign published books that
> are about half priced and new. Don't recall the URL.

Doing a search on the following webpage for "John Kraus"
and "Antennas for all Applications" yields an "as new"
international soft cover version for $28.50.

http://www.abebooks.com/

It would be nice if everyone on this newsgroup had one
of these as a reference.
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

643. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 14:59:07 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <eaili191rbugkjruujmrshtavm0gbdecsq@4ax.com>
Source record: 70540
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

I am not sure I understand the question. I think you have the rotator upside down on the tower at the moment. If it went through some weather, it is probably full of water now. The way I would handle the problem is to remove the rotator from the mount and hang it on the tower (clothes hanger wire) right side up. I would hang it there for a few days to drain & dry out. When it comes time to reinstall the antennas, test the rotator for proper operation. Chances are that it will be OK. If you seal it tight, the moisture will be sealed in. These things are intended to be able to breathe!

If removing/replacing the rotator is a major hassle, I would either send it to one of the maintenance guys or put up a new one & sell the old one on ebay WITH the explanation. There are lots of us who have setups that are easy to change.

If the rotator must be left in the inverted position outside for an extended time I would wrap it in black landscape plastic and duct tape to prevent more water from entering while leaving the bottom of the plastic open to dry out.

On Tue, 13 Sep 2005 20:25:25 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>One of the tricks I learnt early on with RTV sealant in medical
>ultrasound water tanks is if you wet the surfaces with water and a
>detergent wetting agent the sealant wont actually adhere to the
>prewetted surface. Kind of handy if you wanted to force the sealant into
>a clearance slot and remove it later.
>
>Or was it oil? Damn I cant remember! I know kerosene is used to pre the
>surface for better adhesion...
>
>How about paper/masking tape over the gaps and spraying with that gluggy
>sealant you use on sink drains?
>
>Probably not very useful thoughts, sorry!
>
>Cheers Bob W5/VK2YQA
>
>Dan/W4NTI wrote:
>
>>
>> Maybe ... get some axle grease, or RTV sealant would be better, perhaps.
>> Both should peal off reasonable well.
>>

>> One other thing I am concerned with tho. I always heard that the rotar
>> must be kept in a vertical position or the grease would drain out of the
>> bearings? Wives tale ??? I don't know. But I always keep mine vertical
>> when stored.
>>
>> Dan/W4NTI
>>
>>

644. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 15:41:56 UTC
From: Ted Goldblatt <tedgoldblatt@yahoo.com>
Message-ID: <3p07aaF7ublaU1@individual.net>
Source record: 70541
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

John Ferrell wrote:

> I am not sure I understand the question. I think you have the rotator
> upside down on the tower at the moment. If it went through some
> weather, it is probably full of water now. The way I would handle the
> problem is to remove the rotator from the mount and hang it on the
> tower (clothes hanger wire) right side up. I would hang it there for a
> few days to drain & dry out. When it comes time to reinstall the
> antennas, test the rotator for proper operation. Chances are that it
> will be OK. If you seal it tight, the moisture will be sealed in.
> These things are intended to be able to breathe!

The tower is currently up (the mast broke above the rotor, so all the antennas are dangling by their feedlines, but the tower itself is OK) and the rotor is in its normal upright position. It will be upside down when the tower is folded over to work on. As far as I know, the rotor is fine right now.

> If removing/replacing the rotator is a major hassle, I would either
> send it to one of the maintenance guys or put up a new one & sell the
> old one on ebay WITH the explanation. There are lots of us who have
> setups that are easy to change.

Don't understand this. Yes, removing/replacing the rotor is a hassle, largely because it has to be done with the unit upside down, and standing at the top of a ladder. But that isn't the issue here - in fact, there is no obvious reason to remove the rotor at all, since it seems intact. Just remove the stub of the broken mast from the thrust bearing and put a new one in. The issue is that while that is done, and the new antennas are mounted, and new (or repaired) feedlines are run, and all the antennas are tuned, the tower will need to be folded over, with the rotor mounted, and these steps will almost certainly take several days. Because of availability of helpers reasons, this will likely have to be on weekends, meaning the tower will be folded (and the rotor inverted) for a period of at least 1 to 2 weeks.

> If the rotator must be left in the inverted position outside for an
> extended time I would wrap it in black landscape plastic and duct tape
> to prevent more water from entering while leaving the bottom of the
> plastic open to dry out.

I have done this in the past, but because of the way the rotor is mounted on the Rohn tower, it isn't possible to seal it very well this way - I was looking for suggestions for better ways of weatherproofing it for this period.

Marshall

645. HD-73 vs. Ham-M rotors?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 15:42:09 UTC
From: David Snyder Hale <noemail@foobar.com>
Message-ID: <dgep4h$1c3s$2@agate.berkeley.edu>
Source record: 70542
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Can anyone comment on a comparison between these two rotors?
I'm looking to purchase one or the other, and need something to tip the
scales.

tnx,

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu

646. Re: Question on car antenna (in-glass, rear windshield)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 16:47:58 UTC
From: Aaron <AaronREMOVEME@Aaronhorn.co.uk>
Message-ID: <2HCWe.109780$G8.59772@text.news.blueyonder.co.uk>
Source record: 70543
Cross-posted to: rec.audio.car,rec.audio.tech,rec.radio.amateur.antenna

Frank wrote:
> Hi all
>
> Let me preamble this by saying I am new at this, and need your
> help. But I am a quick learner!
>
> I have a few specific questions and perhaps you can help. I am
> trying to troubleshoot a Fm static problem
>
> 1) Is the car coax cable lead one or two wires? I am quite sure
> it is two (one outer (the ground) and one inner wire) but I'll
> ask to confirm
>
> 2) Should a "in-glass" rear winshield antenna be grounded to the
> car's body? If so, from which end of the coax cable? (see Q 3)
>
> 3) Does the expression "grounding the antena" (in the case of a
> glass mounted antenna) be as simple as soldering a grounding wire
> from the outside coax lead end that plugs into the HU to a metal
> ground of the car? Or should it be done closer to the actual
> antena? SUch as at the junction of the end of the coax and where
> the antenna starts...
>
> Here is more detail on my problem if this helps: inconsistent FM
> reception (re: static) with in-glass antenna where I use to get
> crystal clear reception with old car. However, there is a twist
> to my problem: I noticed that the coax cable (inner cable) from
> the HU is not truly connected to the antenna even if it looks
> like it is. I tested it with a continuity tester and it is not.
> When I try to connect the inner coax wire directly to the antenna
> (using a wire and soldering), then I can test it and it is well
> connected. In other words, the inner wire of the coax makes a
> continuous circuit from the HU's to the end of the antenna. Yet,
> I still get some static on some FM station (which is not induced
> by the engine or the car's electrical systems).
>
> Any suggestion? It is an RSX 2004 (Acura). I changed the HU twice
> (two models) and the problem persists (same issue with the OEM)
>
> TIA
>
>

Have you deffinantly got the antenna power line connected to the head unit. On an ISO radio connector this is a blue wire which provides power to an antenna amplifier found on some cars.

Make sure you've fitted the earth (ground?) bar from your radio to the car's body (for example the bolt that holds the radio cage in).

Try using a different antenna to see if the problem re-occurs.

--
Regards,
Aaron.

647. Re: HD-73 vs. Ham-M rotors?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 16:49:47 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <utqdnfeIpPY7arfenZ2dnUVZ_sqdnZ2d@comcast.com>
Source record: 70544

"David Snyder Hale" <noemail@foobar.com> wrote in message
news:dgep4h$1c3s$2@agate.berkeley.edu...
> Can anyone comment on a comparison between these two rotors?
> I'm looking to purchase one or the other, and need something to tip the
> scales.
>
> tnx,
>
> --
> Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu

Did they start making the HD73 again? I thought they stopped that about 20 years ago. I still have one on my UHF antenna, bought the HD73 in 1979. My main rotator is a Yaesu G1000. You get more for less with Yaesu. Really nice control box.

Tam/WB2TT

648. Re: HD-73 vs. Ham-M rotors?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 17:50:23 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <YI6dnVcRT4F-mLbeRVn-jQ@comcast.com>
Source record: 70545

"David Snyder Hale" <noemail@foobar.com> wrote in message
news:dgep4h$1c3s$2@agate.berkeley.edu...
> Can anyone comment on a comparison between these two rotors?
> I'm looking to purchase one or the other, and need something to tip the
> scales.
> tnx,
> --
> Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu

Dave -

This is a FAQ regarding rotators mfg. in USA.
The HD-73 was made by Alliance (Alliance, Ohio) and the Ham-M series by CDE.
http://www.rotorservice.com/index.htm
====
Alliance stopped production of their rotors in 1994.
Norm's Rotor Service (NRS) purchased their entire parts inventory for the
HD-73, U-100, and U-110 rotors and controls. NRS was recently purchased by a
group in Alabama.
====
The Cornell Dubilier Electronics company sold their rotor division to
Telex/Hy-Gain in 1981. Hy-Gain decided to support only the AR-22, AR-40,
CD45-II, Ham-4, and Tailtwister rotors. All rights to the other rotors were
assigned to Norm's Rotor Service.
Today NRS is the only facility with parts for these CDW or HyGain original
units (not in current production).
NRS has almost all of the parts for the AR-22, AR-33, AR-40, AR-50, BT-1,
TR-44, CD-44, Ham-M, Ham-2, and Ham-3 rotor models.
Telex/HyGain sold the HyGain line of rotors to MFJ in May of 1999 (NRS have
parts for these current US production rotors that Hy-Gain continues to
support.).
====
The Ham-M rotor was released in 1957, and there were 5 series with the last
rotor being produced in 1973. The Ham-M rotor would have the series number,
1 - 5, followed by 3 digits which indicated the week and year of
manufacture. For example, a rotor with the series number 5 322 would be a
Ham-M, series 5, manufactured in the twenty-second week (the '22' in '322')
of the year 1973 (the '3' in '322').
A Ham-M has a single-levered control box with a meter. In 1973 the mold for
making the Ham-M control unit shell was destroyed in a fire. So rather than
spend the money to replace the mold, the Ham-2 was born. The rotor was the
same as the Ham-M, but the control unit was replaced with a three-button
unit with a continuous meter reading.

In 1977 the Ham-3 rotor was released. The Ham-3 supported a new motor with an internal brake, as well as a brass motor gear. The brake wedge was redesigned, as was the brake housing, which gave the new unit a capacity for more wind surface area. The control unit for the Ham-3 supported a new PC-board-mounted meter.

In 1978 the Ham-4 or Ham-IV rotor was released. This rotor had a new steel ring gear and a reinforced upper mast support. The only changes to the control box were the addition of a new face plate, plastic top and bottom covers, and a new meter with reversible meter scales. Also in 1978 the Tailtwister rotor, commonly referred to as the "T2X," was introduced. The T2X is a Ham-4 with an even heavier upper mast support, a heavier brake wedge and brake housing, and 40 additional ball bearings. And the Tailtwister control unit has three LED's that the Ham-4 doesn't have.

====

w9gb

649. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 18:31:54 UTC
From: richardharrison@webtv.net
Message-ID: <15189-432B0F9A-307@storefull-3258.bay.webtv.net>
Source record: 70546

Cecil, W5DXP wrote:
"It would be nice if everyone on this newsgtoup had one of these as a refgerence."

I second that motion. At $28.50, it is about 1/2 the cost of mine which was a bargain at that. Kraus` "Antennas" is without peer. As Kraus is now dead, there won`t likely be a new improved edition as in the past.

Best regards, Richard Harrison, KB5WZI

650. Re: Open Stub fed J antenna (long-ish)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 19:11:39 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dgf67i$2fe$1@engnntp2.cig.mot.com>
Source record: 70548

"David" <groups@orbitcoms.com> wrote in message
news:Si4We.47593$FA3.15680@news-server.bigpond.net.au...
> Dave,
> ... The article [Sperrtopf] mentions the top part as 1/2 wave ...
> If this is the case, how come the radiating element is 1480
> long ?

Dave,

If you read his shopping list you see that his drawing is wrong. The _TOTAL_ length of the small pipe is 1480. Still a vertical half wave radiator.

I see no one took this part so I will address the question of what these antennas are, but second. I also read your later post describing your application very well and make this comment first.

If you want to simply 'build' the antenna from physical dimensions derived from another frequency or antenna or just from "scratch", I see two significant problems.

One is that if you have no measuring equipment for 915 MHz, you run a real risk of not getting the size close enough regardless which type of antenna you choose. This could wipe out all your desire to get "reasonable gain". While RF is commonly called "Black magic" there are strays that can be understood only to some extent and therefore they can easily get you off your target. The other is that the plastic "Radome" *will* have an effect on the resonant frequency (lowering the frequency), so comparing it to an "open air" version moves you off your target as well. A common issue relating to both of these is that as you make an antenna with more and more gain, the dimensions become more and more critical to get the best performance.

As a conclusion to this I would recommend setting up the system with a simple, good old quarter wave ground plane and see if you really need "reasonable gain".

Now, on to the "what-is-this-antenna" question you asked earlier. A "J-Pole" (or as I consider, more correctly) a "J" antenna is a vertical half wave antenna (radiating element). It is fed at the bottom (end fed) with an approximately quarter wave long, shorted line, or matching section, or matching stub - call it what you wish. This matching section is constructed of open, parallel wire transmission line. The match to 50 ohms is obtained by connecting the feed line to a point on the matching section closest to 50 ohms. As a simplification you can look at the classical quarter wave shorted stub. Where the impedance goes from zero at the shorted end to a

very high value at the open end. Connecting the high impedance (end of the) half wave radiator to the high impedance end of the stub leads us to conclude that we ought to be able to find any impedance we want (between "high" and zero) somewhere along the length of the stub - and we basically do.

. The length of the matching section and the point where the t-line connects both can be adjusted to get to the best match - though this may not be easy given the construction method used. It is called "J" because when you put the matching section in line with the radiator (and there is nothing requiring this) it has the physical shape of a "J". The matching section could be at right angles to the radiator destroying the "J" shape and the concepts described here are the same (there are antennas done this way). I described it as I did so I can replace the open wire matching section with a coax matching section of the same properties and get the Sperrtopf antenna exactly. So the Sperrtopf can be called a "Sleeve J-Pole" if you like. Or, for those enamored with the "pole", perhaps a "Sleeve-Pole".

The "sleeve" antenna, or "sleeve dipole" I also a vertical half wave antenna, but it is center fed . Start with an ordinary half wave, center fed dipole. Turn it vertically. Feed it with coax (yes, I know there is a balanced to un-balanced issue, but stay with me). Now, convert one half of the dipole (one quarter wave length side) from a wire to a pipe. Make this the half which has the coax shield connected to it. Then, take the coax and rather than running it away at 90 degrees, stuff it down the center of the pipe, out the end and to the transmitter. This is the sleeve dipole. Some may consider the sleeve simply to be a "choke" keeping current off the t-line and there are usually several models which can be used to explain one configuration.

The referenced Microwaves article shows one type of these, the ordinary sleeve dipole. Looking at Fig 3 and the Appendix B picture, Antenna 3 is clearly the classical vertical sleeve dipole.

If I read this correctly, the sleeve dipole closely mimics the ordinary dipole as one would expect. The "spaced gap" antenna (#2) appears close with possibly a little less gain due to the flattened pattern (more radiation at 30 & 150 degrees). Either the #2 or #3 look like they are easy to construct, with the cautions I mentioned above.

Finally, the antenna you described taking apart, looks to me like the #1 antenna (Extended Inner" with a choke 1/4 wave back from the shield end. Too bad the Microwave paper didn't try this.

73, Steve, K;9.D,C'I

651. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 19:25:38 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dgf67i$2fe$2@engnntp2.cig.mot.com>
Source record: 70549

"Cecil Moore" <mycall@arrl.net> wrote in message
news:1126880994_16131@spool6-east.superfeed.net...
> ...
> But I've given you all the information in Kraus' book
> about that particular antenna. Laid on its side:
>
> | + - +
> |----------/////--------------------
> | 1/4WL coil 1/2WL
>
> The coil is a 180 deg. phase reversing coil. [snip]
> 73, Cecil,

Yep and this makes it a "phasing" coil and the antenna a colinear. The phasing coil causes the current in the two sections of the antenna to be in phase. Note my addition of polarity indicators to the above diagram. The right end of both elements are the same = in phase currents. Now you have a half wave and a quarter wave in phase, yielding gain by a flatter pattern (whicn is vertical in this drawing).
You can stack half waves up like this and this is done in common cellular gain antennas - probably WiMax as well. There are several ways to do the phasing... Coils like this, quarter-wave shorted stubs (parallel-line), reverse connecting alternate sections of coaxial t-line as elements, phasing harnesses on the feed line... Probably more.

73, Steve, K;9'D.C,I

652. antenna switch 'ground' how good/valueable??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 20:02:01 UTC
From: lorentsonci@lycos.com
Message-ID: <cs7mi1tvfqh3hf2n2pa4jfbbh9plv5lh31@4ax.com>
Source record: 70547

Last year I moved my antenna mast system to the 'south' side of my house. Right off lighting 'busted' a two meter/440 ground plane. The 'juice' came in the shack, by way of two antennas, a TV antenna/coax, and the coax for the 2/440. I had the coax un connected to the radios. The TV antenna's coax was connected, to a monitor/TV and VCR,,, ''they bit the dust''.
I had almost this same system on the north side of the house for many years, with no apprent damage/problems. I have re purchased new antennas and installed them in the air, several months ago. We have had some 'near misses' since then, I no longer have the TV antenna on the main mast (75'), it is located nearby now at about 20'.
I don't know why, after 'the move south 100' I have more problems with lighting. I want to add more assurances (gournds?) to the system, including a antenna switch, that has in it a swithch to "ground".
But I don't feel really comfortable, putting some of my eggs in this 'ground switch basket'. I purchased some connectors that ''slip on, slip off'', and I am thinking of adding a panel with these slip connectors monted close at hand, and when there is "weather" I just pull the slip connectors lose, and then use the ''ground switch", switching, to ground.
Soooo now my question, how many '''holes''' are there in my ideas/plans???? thanks in advance. cl 73

653. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 22:39:09 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <hQHWe.12917$_84.1349@newsread1.news.atl.earthlink.net>
Source record: 70550
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1126821476.840433.194860@g49g2000cwa.googlegroups.com...

Discounts I don't know but Chatholic dogma still provides for the sale
of Indulenges for sin, even allowing them to be purchased for yone
firend and relitives post mortem

Luther thought the practice pro and so do most prods groups
>

This has got to be the most outragious line of BS I have ever read. He is
beyond IGNORANT.

This IGNORANT FOOL is now jumping headlong into the "Chatholic" religion.
Oh I get it now....it is a whole NEW group. Most folks I know spell it
CATHOLIC. Now it makes sense......sort of.

Dan/W4NTI

654. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-16 23:15:47 UTC
From: David <groups@orbitcoms.com>
Message-ID: <DmlWe.49441$FA3.40799@news-server.bigpond.net.au>
Source record: 70551

I would like to express my appreciation for all those who have taken the time to respond to my post. Being new to antenna design and construction I understand some of my questions and comments may seem a bit "silly" and it would be easy for people to suggest that I go learn more first or simply use trial and error.

I have a practical requirement for a flexible whip antenna that results in "good" gain that works but at the same time I want to learn what I can because it is my intention to later experiment with other style of antenna (Yagi at 434MHz is next on my list).

Now, back to the 1/4 wave, phasing coil, 1/2 wave design.

Does this means for a practical antenna I could have...

SMA plug centre pin -> 1/4 length of wire -> several turns of wire around the Radome -> 1/2 length of wire ? (ie. coax earth braid stops at SMA and rest of antenna is made up of inner conductor and dielectric only).

Is it that "simple" ? If so, that would be easy to construct in a flexible whip (which is my aim) compared to many of the other suggestions.

Is the gain the same as a dipole ?

Also, I have EZNEC 4. but have not had a chance to learn it yet. Can you model the coil in the program or can you only enter segments ?

Thanks.

Steve Nosko wrote:
> "Cecil Moore" <mycall@arrl.net> wrote in message
> news:1126880994_16131@spool6-east.superfeed.net...
>
>>...
>>But I've given you all the information in Kraus' book
>>about that particular antenna. Laid on its side:
>>
>>| + - +
>>|----------/////--------------------
>>| 1/4WL coil 1/2WL
>>
>>The coil is a 180 deg. phase reversing coil. [snip]
>>73, Cecil,
>
>
> Yep and this makes it a "phasing" coil and the antenna a colinear. The
> phasing coil causes the current in the two sections of the antenna to be in

> phase. Note my addition of polarity indicators to the above diagram. The
> right end of both elements are the same = in phase currents. Now you have a
> half wave and a quarter wave in phase, yielding gain by a flatter pattern
> (whicn is vertical in this drawing).
> You can stack half waves up like this and this is done in common cellular
> gain antennas - probably WiMax as well. There are several ways to do the
> phasing... Coils like this, quarter-wave shorted stubs (parallel-line),
> reverse connecting alternate sections of coaxial t-line as elements, phasing
> harnesses on the feed line... Probably more.
>
> 73, Steve, K;9'D.C,I
>
>
>

655. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 00:27:06 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <432b62da$0$32203$39cecf19@news.twtelecom.net>
Source record: 70552

David G. Nagel wrote:

> If the poor people of New Orleans didn't have transportation out of town
> it was because their elected Mayor refused to have them humiliated by
> having to leave town in a school bus or city bus. He wanted Greyhound
> busses with working air-conditioning for them.
>
> It's in the disaster plan to use busses for evacuation. Read it.
>
>

Yep, I know I'd refuse to leave a doomed area if I couldn't go in an air conditioned vehicle. It would have to have leather seats, too. Can't have anybody dissing me.

What B as in B, S as in S.

tom
K0TAR

656. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 03:01:22 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <ci1ni1dmf3cnhek0hggj3goetodbbns4qs@4ax.com>
Source record: 70553
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 15 Sep 2005 14:57:56 -0700, "an_old_friend" <konstans@hotmail.com>
wrote:

>Discounts I don't know but Chatholic dogma still provides for the sale
>of Indulenges for sin, even allowing them to be purchased for yone
>firend and relitives post mortem
>
>Luther thought the practice pro and so do most prods groups

It's bad enough that people feel a need to believe in any deities at
all, but when you have to listen to a bunch of old men in robes half a
world away tell you how to live your life, you're pretty screwed up.

657. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 04:07:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126930235_2245@spool6-east.superfeed.net>
Source record: 70554

David wrote:
> Is it that "simple" ? If so, that would be easy to construct in a
> flexible whip (which is my aim) compared to many of the other suggestions.

The non-simple part is designing the 180 deg. phase
shifting coil. I think I have one of those on my
Diamond mobile antenna.

> Is the gain the same as a dipole ?

Higher than a dipole - close to 6 dBi compared to the
1/4WL ground plane at *about* 0 dBi.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

658. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 04:41:03 UTC
From: Charlie <charlie@play.com>
Message-ID: <11in7j7e4fbgkf2@news.supernews.com>
Source record: 70555
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

You tell em' Teddy Boy!!!

--

Charlie

"Uncle Ted" <malican40@verizon.com> wrote in message
news:ci1ni1dmf3cnhek0hggj3goetodbbns4qs@4ax.com...
> On 15 Sep 2005 14:57:56 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
>
>>Discounts I don't know but Chatholic dogma still provides for the sale
>>of Indulenges for sin, even allowing them to be purchased for yone
>>firend and relitives post mortem
>>
>>Luther thought the practice pro and so do most prods groups
>
> It's bad enough that people feel a need to believe in any deities at
> all, but when you have to listen to a bunch of old men in robes half a
> world away tell you how to live your life, you're pretty screwed up.

659. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 05:40:23 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <b%NWe.1010$9a2.584@trnddc04>
Source record: 70556

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:24625-432A4483-301@storefull-3253.bay.webtv.net...
> Cecil, W5DXP wrote:
> "The 180 deg. phase reversing coil is the tricky part."
>
> For UHF, you might prefer to use a 1/4-wave short-circuited stub in
> place of a coil to reverse the phase. My 19th edition of the ARRL
> Antenna Book shows such an antenna, "the super J-pole on page 16-25. At
> other frequencies, this might be called a "Franklin Antenna". It`s a
> 1/2-wave in-phase with another 1/2-wave, one mounted directly over the
> other.
>
> The super J-pole is designed for 144 MHz, but can be scaled for any
> frequency with proper mechanical allowances. Gain is about 6 dB over a
> 1/4-wave whip.
>
> Best regards, Richard Harrison, KB5WZZI

Richard

I'd have expected the "gain" to be closer to 4 1/2 db over the 1/4 wave
stub over a ground. is it easy to show where i've missed something?

Jerry
>

660. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 07:24:36 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <ys8CC4B0S8KDFwjh@g3ohx.demon.co.uk>
Source record: 70557

In message <dga63e$1h9$1@news.service.uci.edu>, Jim Kelley
<jwkelley@nospam.edu> writes
>
>
>Cecil Moore wrote:
>> Ian Jackson wrote:
>>
>>> Just a quick question.
>>> What is the impedance at the centre of an infinitely long dipole (in
>>>free space)?
>> Same as a terminated dipole in an anechoic chamber? 600-800 ohms?
>
>Not at zero Hz.
>
>ac6xg
>

What is a 'terminated dipole'?
And why 600-800 ohms?

No, Mine will be just a normal dipole (but long). I'll be in a
spaceship, miles from anywhere, and I intend to put out a really long
antenna so I can work the universe on all amateur bands. (I don't care
about the polar diagram - there's bound to be someone out there in one
of the major lobes).

I intend to throw out an infinitely long wire either side of the ship,
and use a balanced tuner connected directly to the antenna (no feeder
required). Because of weight restrictions, I can only take one tuner,
and I want to make sure that the one I do take will cope with the feed
impedance of the antenna.

I think the impedance will be the same at all frequencies (maybe even at
'zero Hz'). But what will it be?

Ian.

--

661. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 07:55:45 UTC
From: David <groups@orbitcoms.com>
Message-ID: <5_PWe.50333$FA3.17911@news-server.bigpond.net.au>
Source record: 70558

I have constructed a 915 MHz 1/2 wave, end fed antenna that fits onto
the end of a SMA plug based on help from you guys. I have some pics of
the construction if anyone is interested in taking a look.
Where is the appropriate place to post these jpg files ?

I am accessing this newsgroup from my email client presently.

I am not sure how I can optimize this yet. My antenna Analyzer is the
MJF unit that only goes to 440MHz.

I have a 1GHz spec analyzer, 1GHz Sig Gen and a Telonic VSWR kit that
goes to 2.5GHz but I think the drive required to the VSWR "Rho-Tector"
needs to be higher than the 10dBm from the sig gen.

Could I optimize the design with this equipment, or maybe would I be
better to use RSSI levels from a receiver placed say 3m away from
Antenna under test ?

If the antenna works I will be very excited as it is very simple to
construct in around 10 minutes and at a cost of around $3 (no counting
labour).

Thanks for any help.

Jerry Martes wrote:
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:24625-432A4483-301@storefull-3253.bay.webtv.net...
>
>>Cecil, W5DXP wrote:
>>"The 180 deg. phase reversing coil is the tricky part."
>>
>>For UHF, you might prefer to use a 1/4-wave short-circuited stub in
>>place of a coil to reverse the phase. My 19th edition of the ARRL
>>Antenna Book shows such an antenna, "the super J-pole on page 16-25. At
>>other frequencies, this might be called a "Franklin Antenna". It`s a
>>1/2-wave in-phase with another 1/2-wave, one mounted directly over the
>>other.
>>
>>The super J-pole is designed for 144 MHz, but can be scaled for any
>>frequency with proper mechanical allowances. Gain is about 6 dB over a
>>1/4-wave whip.
>>
>>Best regards, Richard Harrison, KB5WZZI
>
>
> Richard

>
> I'd have expected the "gain" to be closer to 4 1/2 db over the 1/4 wave
> stub over a ground. is it easy to show where i've missed something?
>
> Jerry
>
>
>

662. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 13:28:44 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ae6oi1tmv8h9vlp2u941b1jcut7pfe0of0@4ax.com>
Source record: 70559
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

Now I understand!
I this case I would get some of the soft rope like window putty from the hardware store to seal up the rotator while it was vulnerable. I have not bought any for years, I assume it is still available. Play Dough does not work well, it either shrinks and falls out or hardens.

On Fri, 16 Sep 2005 11:41:56 -0400, Ted Goldblatt <tedgoldblatt@yahoo.com> wrote:

>
>I have done this in the past, but because of the way the rotor is
>mounted on the Rohn tower, it isn't possible to seal it very well this
>way - I was looking for suggestions for better ways of weatherproofing
>it for this period.
>
>Marshall

663. Re: antenna switch 'ground' how good/valueable??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 13:34:11 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <4q6oi15bjkdm4p5emvt76qgdeguaqjhm2b@4ax.com>
Source record: 70560

Extra ground rods are good but they must ALL be tied together with at least #6 copper wire. A 300 foot roll of bare #6 copper wire costs about $69 at my local home improvement store.

I am not an expert, but I have more than my share of bad experience!
de W8CCW

On Fri, 16 Sep 2005 15:02:01 -0500, lorentsonci@lycos.com wrote:

>Last year I moved my antenna mast system to the 'south' side of my
>house. Right off lighting 'busted' a two meter/440 ground plane. The
>'juice' came in the shack, by way of two antennas, a TV antenna/coax,
>and the coax for the 2/440. I had the coax un connected to the
>radios. The TV antenna's coax was connected, to a monitor/TV and
>VCR,,, ''they bit the dust''.
> I had almost this same system on the north side of the house for
>many years, with no apprent damage/problems. I have re purchased new
>antennas and installed them in the air, several months ago. We have
>had some 'near misses' since then, I no longer have the TV antenna on
>the main mast (75'), it is located nearby now at about 20'.
> I don't know why, after 'the move south 100' I have more problems
>with lighting. I want to add more assurances (gournds?) to the
>system, including a antenna switch, that has in it a swithch to
>"ground".
> But I don't feel really comfortable, putting some of my eggs in
>this 'ground switch basket'. I purchased some connectors that
>''slip on, slip off'', and I am thinking of adding a panel with these
>slip connectors monted close at hand, and when there is "weather" I
>just pull the slip connectors lose, and then use the ''ground switch",
>switching, to ground.
> Soooo now my question, how many '''holes''' are there in my
>ideas/plans???? thanks in advance. cl 73

664. Re: HD-73 vs. Ham-M rotors?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 13:39:23 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <547oi1d7640nvo444a2lpmfeklhchknohm@4ax.com>
Source record: 70561

I lke my Yaesu rotator but a lightning strike while still in warranty
nailed the control box and the US distributer offered no solution
other than buy a new rotator.

Fortunately, a homebrew control box is pretty simple.

On Fri, 16 Sep 2005 12:49:47 -0400, "Tam/WB2TT"
<t-tammaru@c0mca$t.net> wrote:

>
>"David Snyder Hale" <noemail@foobar.com> wrote in message
>news:dgep4h$1c3s$2@agate.berkeley.edu...
>> Can anyone comment on a comparison between these two rotors?
>> I'm looking to purchase one or the other, and need something to tip the
>> scales.
>>
>> tnx,
>>
>> --
>> Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu
>
>Did they start making the HD73 again? I thought they stopped that about 20
>years ago. I still have one on my UHF antenna, bought the HD73 in 1979. My
>main rotator is a Yaesu G1000. You get more for less with Yaesu. Really nice
>control box.
>
>Tam/WB2TT
>

665. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 13:52:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126965295_3165@spool6-east.superfeed.net>
Source record: 70562

Ian Jackson wrote:
> What is a 'terminated dipole'?

In an anechoic chamber, the dipole has a resistor to chassis at
both ends. When the value of the resistor equals the characteristic
impedance of the dipole, the dipole becomes a traveling wave
antenna instead of a standing wave antenna. Your infinite dipole
in free space will be a traveling wave antenna, i.e. no reflections.

> And why 600-800 ohms?

That's a ballpark Z0 for traveling wave antennas not located
near ground. It's the Z0 of a 1/2WL dipole during the transient
state before the arrival of the first reflections from the ends.

The resonant feedpoint impedance of a center-fed 1/2WL dipole is
(the difference between the values of the forward voltage and the
reflected voltage) divided by (the sum of the values of the forward
current and reflected current). Note: the two voltages are out of
phase and the two currents are in phase.

This is the (B) definition of "impedance" in the "IEEE Dictionary",
i.e. impedance as a *result*, not a cause. Destructive wave interference
at the feedpoint of a center-fed 1/2WL dipole is what causes a Z0-match
to a low resistive value, e.g. 50 ohms or 70 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

666. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 14:00:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126965787_3169@spool6-east.superfeed.net>
Source record: 70563

David wrote:

> I have constructed a 915 MHz 1/2 wave, end fed antenna that fits onto
> the end of a SMA plug based on help from you guys.

How are you matching the very high feedpoint impedance?

> I have some pics of
> the construction if anyone is interested in taking a look.
> Where is the appropriate place to post these jpg files ?

Some of us have web pages from qsl.net for that purpose.
There is also a netnews group for that purpose. I think
it is alt.binaries.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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667. Re: antenna switch 'ground' how good/valueable??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 14:14:44 UTC
From: nm5k@wt.net
Message-ID: <1126966484.594589.251420@o13g2000cwo.googlegroups.com>
Source record: 70564

You need the good ground at the base of the antenna/mast.
Adding "grounds" to switches, etc, are generally a waste of
time. Being grounded, does not mean being safe. In many strikes,
it's the grounded stuff that takes the most damage. I would ground
the supporting mast with a good ground rod, etc, and use normal
lightning suppression methods to protect the gear in the house.
IE: suppressors, etc.. Check out polyphaser, etc..
MK

668. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 14:24:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgh8uv$c0v$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70565

> What is the impedance at the centre of an infinitely long dipole
(in
> free space)?

==========
Its not very different from -

Zin = 120 * Ln(Wavelength / d) ohms.

where d = conductor diameter, both measured in metres.

Thus, at wavelength = 80 metres with 14 gauge copper wire, input
impedance = 1300 ohms approx.

If you don't believe me, just measure it.

Reg.

669. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 15:41:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <17b21$432c3942$471c63c6$27597@ALLTEL.NET>
Source record: 70566
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Would someone put something in "Uncle Ted's" mouth, my zipper is stuck...

Uncle Ted" <malican40@verizon.com> wrote in message

> It's bad enough that people feel a need to believe in any deities at
> all, but when you have to listen to a bunch of old men in robes half a
> world away tell you how to live your life, you're pretty screwed up.

670. Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 16:43:55 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-6B6CD9.11435517092005@newsclstr02.news.prodigy.com>
Source record: 70567

I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six meters. I would like to use my existing W9INN fan dipole if possible. At the present time the fan dipole has three sets of wires from the common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add another short set of wires cut for 50.125 MHz. Since each of the new wires will only be 4.67 feet, I plan to use stand offs and run them close to the 40/80 dipoles. It will be interesting to see if this really works. Any suggestions for the short stand off insulators?

Dick, AA5VU
aa5vu at arrl.net

671. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 16:46:58 UTC
From: Charlie <charlie@play.com>
Message-ID: <11ioi4diagii717@news.supernews.com>
Source record: 70568
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Can't do it Fred..I'm not homosexual as apparently you are.

--

Charlie

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:17b21$432c3942$471c63c6$27597@ALLTEL.NET...
> Would someone put something in "Uncle Ted's" mouth, my zipper is stuck...
>
> Uncle Ted" <malican40@verizon.com> wrote in message
>
>> It's bad enough that people feel a need to believe in any deities at
>> all, but when you have to listen to a bunch of old men in robes half a
>> world away tell you how to live your life, you're pretty screwed up.
>
>

672. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 16:55:52 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-2FE9E9.11555317092005@newsclstr02.news.prodigy.com>
Source record: 70569

In article
<REMOVEarkay-6B6CD9.11435517092005@newsclstr02.news.prodigy.com>,
aRKay <REMOVEarkay@qsl.net> wrote:

> I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
> meters. I would like to use my existing W9INN fan dipole if possible.
> At the present time the fan dipole has three sets of wires from the
> common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
> another short set of wires cut for 50.125 MHz. Since each of the new
> wires will only be 4.67 feet, I plan to use stand offs and run them
> close to the 40/80 dipoles. It will be interesting to see if this
> really works. Any suggestions for the short stand off insulators?
>
> Dick, AA5VU
> aa5vu at arrl.net

Any suggestions on how to keep the new six meter wires from wrapping
around the 40 meter wire in the wind? My plan sounds good until the
wind blows and I have visions of the short six meter wires getting
tangled in the other wires. I would tie them off with additional tie
ropes but it would wind up looking more like an extreme Inverted V
antenna.

AA5VU

673. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 17:43:17 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <dghlio$k42$1@ctb-nnrp2.saix.net>
Source record: 70571
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

"Ted Goldblatt" <tedgoldblatt@yahoo.com> wrote in message
news:3p07aaF7ublaU1@individual.net...
> John Ferrell wrote:
>
>> I am not sure I understand the question. I think you have the rotator
>> upside down on the tower at the moment. If it went through some
>> weather, it is probably full of water now. The way I would handle the
>> problem is to remove the rotator from the mount and hang it on the
>> tower (clothes hanger wire) right side up. I would hang it there for a
>> few days to drain & dry out. When it comes time to reinstall the
>> antennas, test the rotator for proper operation. Chances are that it
>> will be OK. If you seal it tight, the moisture will be sealed in.
>> These things are intended to be able to breathe!
>
> The tower is currently up (the mast broke above the rotor, so all the
> antennas are dangling by their feedlines, but the tower itself is OK) and
> the rotor is in its normal upright position. It will be upside down when
> the tower is folded over to work on. As far as I know, the rotor is fine
> right now.
>
>> If removing/replacing the rotator is a major hassle, I would either
>> send it to one of the maintenance guys or put up a new one & sell the
>> old one on ebay WITH the explanation. There are lots of us who have
>> setups that are easy to change.
>
> Don't understand this. Yes, removing/replacing the rotor is a hassle,
> largely because it has to be done with the unit upside down, and standing
> at the top of a ladder. But that isn't the issue here - in fact, there is
> no obvious reason to remove the rotor at all, since it seems intact. Just
> remove the stub of the broken mast from the thrust bearing and put a new
> one in. The issue is that while that is done, and the new antennas are
> mounted, and new (or repaired) feedlines are run, and all the antennas are
> tuned, the tower will need to be folded over, with the rotor mounted, and
> these steps will almost certainly take several days. Because of
> availability of helpers reasons, this will likely have to be on weekends,
> meaning the tower will be folded (and the rotor inverted) for a period of
> at least 1 to 2 weeks.
>
>> If the rotator must be left in the inverted position outside for an
>> extended time I would wrap it in black landscape plastic and duct tape
>> to prevent more water from entering while leaving the bottom of the
>> plastic open to dry out.
>

> I have done this in the past, but because of the way the rotor is mounted
> on the Rohn tower, it isn't possible to seal it very well this way - I was
> looking for suggestions for better ways of weatherproofing it for this
> period.
>
> Marshall
>

LOTS of Heavy Grease "glooped" all over every conceivable (and
inconceivable) opening. Then wrap it in plastic.

73
Roger ZR3RC

674. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 17:51:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126979647_3729@spool6-east.superfeed.net>
Source record: 70570

aRKay wrote:
> I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
> meters. I would like to use my existing W9INN fan dipole if possible.
> At the present time the fan dipole has three sets of wires from the
> common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
> another short set of wires cut for 50.125 MHz. Since each of the new
> wires will only be 4.67 feet, I plan to use stand offs and run them
> close to the 40/80 dipoles. It will be interesting to see if this
> really works. Any suggestions for the short stand off insulators?

18 MHz times three equals 54 MHz. The 18 MHz dipole is likely to
detune the 6m dipole. See what the 6m SWR is now. You may not
need any additional wires.
--
73, Cecil http://www.qsl.net/w5dxp

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675. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 18:13:19 UTC
From: Dave <noone@nowhere.com>
Message-ID: <mZednePRRv1XwbHeRVn-vA@crocker.com>
Source record: 70572

just try it without the extra wires first, you may be surprised and get a
good match from one of the other wires.

"aRKay" <REMOVEarkay@qsl.net> wrote in message
news:REMOVEarkay-6B6CD9.11435517092005@newsclstr02.news.prodigy.com...
>I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
> meters. I would like to use my existing W9INN fan dipole if possible.
> At the present time the fan dipole has three sets of wires from the
> common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
> another short set of wires cut for 50.125 MHz. Since each of the new
> wires will only be 4.67 feet, I plan to use stand offs and run them
> close to the 40/80 dipoles. It will be interesting to see if this
> really works. Any suggestions for the short stand off insulators?
>
> Dick, AA5VU
> aa5vu at arrl.net

676. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 18:20:47 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <38ZWe.1399$fb6.1163@trnddc08>
Source record: 70573

"Cecil Moore" <mycall@arrl.net> wrote in message
news:1126965787_3169@spool6-east.superfeed.net...
> David wrote:
>
>> I have constructed a 915 MHz 1/2 wave, end fed antenna that fits onto the
>> end of a SMA plug based on help from you guys.
>
> How are you matching the very high feedpoint impedance?
>
>> I have some pics of the construction if anyone is interested in taking a
>> look.
>> Where is the appropriate place to post these jpg files ?
>
> Some of us have web pages from qsl.net for that purpose.
> There is also a netnews group for that purpose. I think
> it is alt.binaries.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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Cecil

He is feeding the 1/2 wave antenna in the center, where the impedance will
be somewhere around 70 ohms. His coax feed line is located within one half
of the antenna and exits the 1/2 wave, center excited, dipole at the "high
impedance" end of the dipole.

David sent me some pictures. The antenna looks quite good.

The effectiveness of the "choke" that attempts to disconnect the dipole
from the feed line may be less than ideal, but it is yet unknown how good
this antenna needs to be.

Jerry

677. help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 18:55:16 UTC
From: eternalsquire@comcast.net
Message-ID: <1126983316.093491.307380@g43g2000cwa.googlegroups.com>
Source record: 70574

Hi,

I am using 4nec2 and ICEPAC to design a 4-square inverted L. I think the far field pattern, SWR, and area coverage are pretty good. I believe most receivers can hear signals down to -120db fairly well. I am modelling not only radials but also a ground system to reduce the SWR and help with the lightning protection. I hacked this out of a standard 4-square for 80 meters.

Any of the 4-square people out there who can offer additional pointers, construction details, and other things I have not considered? I'm finding trouble reducing the SWR from 2:1 down to 1:1

NOTE: Distance T is an arbitrary distance between the ground and a planned wooden deck roof to help disguise the system. Distance D is an arbitrarily small distance between the ground system and the dirt.

Thanks much!

The Eternal Squire

```
CM K6NA - 4-Element W1CF Phased-Vertical Array
CE converted with 4nec2 from AO to 4nec2 format on 22-apr-02
SY T = 9 ft
SY S = 17.3875 ft
SY K = T
SY M = 8.69375 ft
SY D = 0.1 ft
SY W = 8.69375 ft
GW 1 5 -S 0 T -S 0 T+W 1in
GW 2 5 0 -S T 0 -S T+W 1in
GW 3 5 0 S T 0 S T+W 1in
GW 4 5 S 0 T S 0 T+W 1in
GW 11 5 -S 0 T+W -S+W 0 T+W 1in
GW 22 5 0 -S T+W 0 -S+W T+W 1in
GW 33 5 0 S T+W 0 S-W T+W 1in
GW 44 5 S 0 T+W S-W 0 T+W 1in
GW 111 5 -S 0 K -S-M 0 K 0.25in
GW 112 5 -S 0 K -S+M 0 K 0.25in
GW 113 5 -S 0 K -S M K 0.25in
GW 114 5 -S 0 K -S -M K 0.25in
GW 211 5 S 0 K S-M 0 K 0.25in
GW 212 5 S 0 K S+M 0 K 0.25in
GW 213 5 S 0 K S M K 0.25in
GW 214 5 S 0 K S -M K 0.25in
GW 311 5 0 S K 0 S-M K 0.25in
```

```
GW 312 5 0 S K 0 S+M K 0.25in
GW 313 5 0 S K M S K 0.25in
GW 314 5 0 S K -M S K 0.25in
GW 411 5 0 -S K 0 -S-M K 0.25in
GW 412 5 0 -S K 0 -S+M K 0.25in
GW 413 5 0 -S K M -S K 0.25in
GW 414 5 0 -S K -M -S K 0.25in
GW 51 5 -S 0 0 -S 0 T 2in
GW 52 5 0 -S 0 0 -S T 2in
GW 53 5 0 S 0 0 S T 2in
GW 54 5 S 0 0 S 0 T 2in
GW 66 5 -S 0 D 0 0 D 0.25in
GW 67 5 0 0 D S 0 D 0.25in
GW 68 5 0 -S D 0 0 D 0.25in
GW 69 5 0 0 D 0 S D 0.25in
GW 70 5 -2S 0 D -S 0 D 0.25in
GW 71 5 S 0 D 2S 0 D 0.25in
GW 72 5 0 -2S D 0 S D 0.25in
GW 73 5 0 S D 0 2S D 0.25in
GW 80 5 -1S 0 D -1S -1S D 0.25in
GW 81 5 -1S 0 D -1S 1S D 0.25in
GW 82 5 1S 0 D 1S -1S D 0.25in
GW 83 5 1S 0 D 1S 1S D 0.25in
GE 1
SY I1 = 1
SY I23 = 1
SY I4 = 1
SY P1 = 0
SY P23 = -90
SY P4 = -180
EX 6 1 1 00 1.0 0.0
EX 6 2 1 00 .0 -1.0
EX 6 3 1 00 .0 -1.0
EX 6 4 1 00 -1.0 -.0
GN 0 0 0 0 13 0.002
'
FR 0 1 0 0 14.01
EN

'From the arrl antenna anthology, vol. 1.
```

678. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 18:58:38 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <QeudneNYVdrK-rHeRVn-rA@comcast.com>
Source record: 70575

"Dave" <noone@nowhere.com> wrote in message
news:mZednePRRv1XwbHeRVn-vA@crocker.com...
> just try it without the extra wires first, you may be surprised and get a
> good match from one of the other wires.
>

You would think so, since 7 x 7.2 = 50.4. I happen to have a 7 & 18 MHz antenna; so, I measured the SWR on 6 meters. Got about 2.9:1 at 50.25. SWR at 56 MHz is about 1.2:1. Nevertheless, I have spoken to people on 6m who were using 40 m dipoles.

Tam/WB2TT

> "aRKay" <REMOVEarkay@qsl.net> wrote in message
> news:REMOVEarkay-6B6CD9.11435517092005@newsclstr02.news.prodigy.com...
>>I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
>> meters. I would like to use my existing W9INN fan dipole if possible.
>> At the present time the fan dipole has three sets of wires from the
>> common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
>> another short set of wires cut for 50.125 MHz. Since each of the new
>> wires will only be 4.67 feet, I plan to use stand offs and run them
>> close to the 40/80 dipoles. It will be interesting to see if this
>> really works. Any suggestions for the short stand off insulators?
>>
>> Dick, AA5VU
>> aa5vu at arrl.net
>
>

679. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:10:11 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <E9OdneXjXInf97HenZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 70476
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:
> On 15 Sep 2005 14:57:56 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
>
>
>>Discounts I don't know but Chatholic dogma still provides for the sale
>>of Indulenges for sin, even allowing them to be purchased for yone
>>firend and relitives post mortem
>>
>>Luther thought the practice pro and so do most prods groups
>
>
> It's bad enough that people feel a need to believe in any deities at
> all, but when you have to listen to a bunch of old men in robes half a
> world away tell you how to live your life, you're pretty screwed up.

Ted, I'll pray for you. There's nothing you can do about it!

+ + +

680. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:11:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <DrGdnV27VMjE97HeRVn-sg@crocker.com>
Source record: 70477

don't worry about the swr, you need to build a phasing system that generates
the required feed currents and that can easily contain a network to bring
the output impedance to whatever you want to feed it with.

<eternalsquire@comcast.net> wrote in message
news:1126983316.093491.307380@g43g2000cwa.googlegroups.com...
> Hi,
>
> I am using 4nec2 and ICEPAC to design a 4-square inverted L. I think
> the far field pattern, SWR, and area coverage are pretty good. I
> believe most receivers can hear signals down to -120db fairly well. I
> am modelling not only radials but also a ground system to reduce the
> SWR and help with the lightning protection. I hacked this out of a
> standard 4-square for 80 meters.
>
> Any of the 4-square people out there who can offer additional pointers,
> construction details, and other things I have not considered? I'm
> finding trouble reducing the SWR from 2:1 down to 1:1
>
> NOTE: Distance T is an arbitrary distance between the ground and a
> planned wooden deck roof to help disguise the system. Distance D is an
> arbitrarily small distance between the ground system and the dirt.
>
> Thanks much!
>
> The Eternal Squire
>
>
> CM K6NA - 4-Element W1CF Phased-Vertical Array
> CE converted with 4nec2 from AO to 4nec2 format on 22-apr-02
> SY T = 9 ft
> SY S = 17.3875 ft
> SY K = T
> SY M = 8.69375 ft
> SY D = 0.1 ft
> SY W = 8.69375 ft
> GW 1 5 -S 0 T -S 0 T+W 1in
> GW 2 5 0 -S T 0 -S T+W 1in
> GW 3 5 0 S T 0 S T+W 1in
> GW 4 5 S 0 T S 0 T+W 1in
> GW 11 5 -S 0 T+W -S+W 0 T+W 1in
> GW 22 5 0 -S T+W 0 -S+W T+W 1in
> GW 33 5 0 S T+W 0 S-W T+W 1in
> GW 44 5 S 0 T+W S-W 0 T+W 1in

```
> GW 111 5 -S 0 K -S-M 0 K 0.25in
> GW 112 5 -S 0 K -S+M 0 K 0.25in
> GW 113 5 -S 0 K -S M K 0.25in
> GW 114 5 -S 0 K -S -M K 0.25in
> GW 211 5 S 0 K S-M 0 K 0.25in
> GW 212 5 S 0 K S+M 0 K 0.25in
> GW 213 5 S 0 K S M K 0.25in
> GW 214 5 S 0 K S -M K 0.25in
> GW 311 5 0 S K 0 S-M K 0.25in
> GW 312 5 0 S K 0 S+M K 0.25in
> GW 313 5 0 S K M S K 0.25in
> GW 314 5 0 S K -M S K 0.25in
> GW 411 5 0 -S K 0 -S-M K 0.25in
> GW 412 5 0 -S K 0 -S+M K 0.25in
> GW 413 5 0 -S K M -S K 0.25in
> GW 414 5 0 -S K -M -S K 0.25in
> GW 51 5 -S 0 0 -S 0 T 2in
> GW 52 5 0 -S 0 0 -S T 2in
> GW 53 5 0 S 0 0 S T 2in
> GW 54 5 S 0 0 S 0 T 2in
> GW 66 5 -S 0 D 0 0 D 0.25in
> GW 67 5 0 0 D S 0 D 0.25in
> GW 68 5 0 -S D 0 0 D 0.25in
> GW 69 5 0 0 D 0 S D 0.25in
> GW 70 5 -2S 0 D -S 0 D 0.25in
> GW 71 5 S 0 D 2S 0 D 0.25in
> GW 72 5 0 -2S D 0 S D 0.25in
> GW 73 5 0 S D 0 2S D 0.25in
> GW 80 5 -1S 0 D -1S -1S D 0.25in
> GW 81 5 -1S 0 D -1S 1S D 0.25in
> GW 82 5 1S 0 D 1S -1S D 0.25in
> GW 83 5 1S 0 D 1S 1S D 0.25in
> GE 1
> SY I1 = 1
> SY I23 = 1
> SY I4 = 1
> SY P1 = 0
> SY P23 = -90
> SY P4 = -180
> EX 6 1 1 00 1.0 0.0
> EX 6 2 1 00 .0 -1.0
> EX 6 3 1 00 .0 -1.0
> EX 6 4 1 00 -1.0 -.0
> GN 0 0 0 0 13 0.002
> '
> FR 0 1 0 0 14.01
> EN
>
> 'From the arrl antenna anthology, vol. 1.
>
```

681. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:13:14 UTC
From: Dave <noone@nowhere.com>
Message-ID: <xf2dnejlQddL97HeRVn-qA@crocker.com>
Source record: 70478

also, why bother with inverted L's? a full 1/4 wave vertical for 20m is
only about 15' tall, easily built from tubing or pipe and easily supported
even free standing.

<eternalsquire@comcast.net> wrote in message
news:1126983316.093491.307380@g43g2000cwa.googlegroups.com...
> Hi,
>
> I am using 4nec2 and ICEPAC to design a 4-square inverted L. I think
> the far field pattern, SWR, and area coverage are pretty good. I
> believe most receivers can hear signals down to -120db fairly well. I
> am modelling not only radials but also a ground system to reduce the
> SWR and help with the lightning protection. I hacked this out of a
> standard 4-square for 80 meters.
>
> Any of the 4-square people out there who can offer additional pointers,
> construction details, and other things I have not considered? I'm
> finding trouble reducing the SWR from 2:1 down to 1:1
>
> NOTE: Distance T is an arbitrary distance between the ground and a
> planned wooden deck roof to help disguise the system. Distance D is an
> arbitrarily small distance between the ground system and the dirt.
>
> Thanks much!
>
> The Eternal Squire
>
>
> CM K6NA - 4-Element W1CF Phased-Vertical Array
> CE converted with 4nec2 from AO to 4nec2 format on 22-apr-02
> SY T = 9 ft
> SY S = 17.3875 ft
> SY K = T
> SY M = 8.69375 ft
> SY D = 0.1 ft
> SY W = 8.69375 ft
> GW 1 5 -S 0 T -S 0 T+W 1in
> GW 2 5 0 -S T 0 -S T+W 1in
> GW 3 5 0 S T 0 S T+W 1in
> GW 4 5 S 0 T S 0 T+W 1in
> GW 11 5 -S 0 T+W -S+W 0 T+W 1in
> GW 22 5 0 -S T+W 0 -S+W T+W 1in
> GW 33 5 0 S T+W 0 S-W T+W 1in
> GW 44 5 S 0 T+W S-W 0 T+W 1in

```
> GW 111 5 -S 0 K -S-M 0 K 0.25in
> GW 112 5 -S 0 K -S+M 0 K 0.25in
> GW 113 5 -S 0 K -S M K 0.25in
> GW 114 5 -S 0 K -S -M K 0.25in
> GW 211 5 S 0 K S-M 0 K 0.25in
> GW 212 5 S 0 K S+M 0 K 0.25in
> GW 213 5 S 0 K S M K 0.25in
> GW 214 5 S 0 K S -M K 0.25in
> GW 311 5 0 S K 0 S-M K 0.25in
> GW 312 5 0 S K 0 S+M K 0.25in
> GW 313 5 0 S K M S K 0.25in
> GW 314 5 0 S K -M S K 0.25in
> GW 411 5 0 -S K 0 -S-M K 0.25in
> GW 412 5 0 -S K 0 -S+M K 0.25in
> GW 413 5 0 -S K M -S K 0.25in
> GW 414 5 0 -S K -M -S K 0.25in
> GW 51 5 -S 0 0 -S 0 T 2in
> GW 52 5 0 -S 0 0 -S T 2in
> GW 53 5 0 S 0 0 S T 2in
> GW 54 5 S 0 0 S 0 T 2in
> GW 66 5 -S 0 D 0 0 D 0.25in
> GW 67 5 0 0 D S 0 D 0.25in
> GW 68 5 0 -S D 0 0 D 0.25in
> GW 69 5 0 0 D 0 S D 0.25in
> GW 70 5 -2S 0 D -S 0 D 0.25in
> GW 71 5 S 0 D 2S 0 D 0.25in
> GW 72 5 0 -2S D 0 S D 0.25in
> GW 73 5 0 S D 0 2S D 0.25in
> GW 80 5 -1S 0 D -1S -1S D 0.25in
> GW 81 5 -1S 0 D -1S 1S D 0.25in
> GW 82 5 1S 0 D 1S -1S D 0.25in
> GW 83 5 1S 0 D 1S 1S D 0.25in
> GE 1
> SY I1 = 1
> SY I23 = 1
> SY I4 = 1
> SY P1 = 0
> SY P23 = -90
> SY P4 = -180
> EX 6 1 1 00 1.0 0.0
> EX 6 2 1 00 .0 -1.0
> EX 6 3 1 00 .0 -1.0
> EX 6 4 1 00 -1.0 -.0
> GN 0 0 0 0 13 0.002
> '
> FR 0 1 0 0 14.01
> EN
>
> 'From the arrl antenna anthology, vol. 1.
>
```

682. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:17:10 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-87B5C9.14171017092005@newsclstr02.news.prodigy.com>
Source record: 70479

In article <1126979647_3729@spool6-east.superfeed.net>,
Cecil Moore <mycall@arrl.net> wrote:

> aRKay wrote:
> > I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
> > meters. I would like to use my existing W9INN fan dipole if possible.
> > At the present time the fan dipole has three sets of wires from the
> > common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
> > another short set of wires cut for 50.125 MHz. Since each of the new
> > wires will only be 4.67 feet, I plan to use stand offs and run them
> > close to the 40/80 dipoles. It will be interesting to see if this
> > really works. Any suggestions for the short stand off insulators?
>
> 18 MHz times three equals 54 MHz. The 18 MHz dipole is likely to
> detune the 6m dipole. See what the 6m SWR is now. You may not
> need any additional wires.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Good point. I may hold off until I get the Ten-Tec 1208 and see what I
have with the existing mess of wires. HiHi

I don't have an antenna analyser so will have to wait until I generate a
six meter signal.

Anyone ever tried six meters on an old Ringo Ranger 2 meter antenna?

Dick AA5VU

683. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:20:13 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <NdqdnfUoedIA8bHeRVn-sw@comcast.com>
Source record: 70480

Ian Jackson wrote:

> In message <dga63e$1h9$1@news.service.uci.edu>, Jim Kelley
> <jwkelley@nospam.edu> writes
>
>>
>>
>> Cecil Moore wrote:
>>
>>> Ian Jackson wrote:
>>>
>>>> Just a quick question.
>>>> What is the impedance at the centre of an infinitely long dipole (in
>>>> free space)?
>>>
>>> Same as a terminated dipole in an anechoic chamber? 600-800 ohms?
>>
>>
>> Not at zero Hz.

Now#1, an infinitely long wire has an infinite self inductance.
Now#2, an infinitely long wire has an infinite self capacitance.
Now#3, frequency does not enter into the equation

Zo = SQRT[L(infinite)/C(infinite)]

Now, from my old college days, infinity divided by infinity is
undefined. The SQRT of an undefined value is by definition undefined.

Conclusion: the impedance of an infinitely long wire in free space is
not the SAME as a terminated dipole in an anechoic chamber.

NOTE: an infinitely long wire in free space cannot be terminated. A
terminated wire in an anechoic chamber is not the same as a free space
model.

A terminated wire in in an anechoic chamber is a standard math model
with Zo varying as the ratio of the wire diameter and the distance to
the 'space cloth/cones' [which are not perfect rf absorbers ... hence
some reflection]. Also, the termination destroys the symmetry.

>>
>> ac6xg
>>
>
> What is a 'terminated dipole'?
> And why 600-800 ohms?

>
> No, Mine will be just a normal dipole (but long). I'll be in a
> spaceship, miles from anywhere, and I intend to put out a really long
> antenna so I can work the universe on all amateur bands. (I don't care
> about the polar diagram - there's bound to be someone out there in one
> of the major lobes).
>
> I intend to throw out an infinitely long wire either side of the ship,
> and use a balanced tuner connected directly to the antenna (no feeder
> required). Because of weight restrictions, I can only take one tuner,
> and I want to make sure that the one I do take will cope with the feed
> impedance of the antenna.
>
> I think the impedance will be the same at all frequencies (maybe even at
> 'zero Hz'). But what will it be?
>
> Ian.
>

684. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:26:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dghqlbqep1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70481

It should work OK. You will need a little patience to prune the 50 Mhz antenna length to resonance.

To reduce the coupling between antennas you could allow the 50 MHz dipole to droop a little in the form of a shallow inverted-V.

Just progressivly increase the lemgth of the hanging insulating strings towards the end of the 50 MHz dipole. It doesn't matter if the dipole has curves in it.

I hope I have correctly judged your setup.

Reg.

685. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:46:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ioskhlhnsrl9b@corp.supernews.com>
Source record: 70482

Jerry Martes wrote:
>
> I'd have expected the "gain" to be closer to 4 1/2 db over the 1/4 wave
> stub over a ground. is it easy to show where i've missed something?
>

I think it should be more like 3 dB, but hadn't said anything until I had a chance to model it. The quarter wave stub doesn't radiate significantly, so it can be ignored. A half wavelength element should have about 1.5 dB gain over a quarter wave. Two of them would give another 3 dB if it weren't for mutual coupling, but the mutual coupling of collinear elements reduces the gain to about 1.5 dB over a single element. (See for example Fig. 39 on p. 8-35 of the ARRL Antenna Book, 20th Edition; look up Collinear, Gain and directivity in the index of other editions; or model it with your favorite program.)

Roy Lewallen, W7EL

686. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 19:59:53 UTC
From: "LenAnderson@ieee.org" <LenAnderson@ieee.org>
Message-ID: <1126987193.132617.297010@g44g2000cwa.googlegroups.com>
Source record: 70483
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

>It has NEVER been the DOGMA of the Catholic Church to sell indulgences.
>PERIOD! A period of clerical abuse of indulgences, contrary to the
>Doctrinal position of the Church, did exist in history. Martin Luther
>was correct to cite this failure in clergy practice. The abuse was
>censured in the Council of Trent [ca 1545 - 1563].

Did his karma run over your dogma? :-)

LenAnderson@ieee.org

687. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 20:00:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dghsk2$6cj$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70484

You had better go back to your old college days and start again with new teachers.

The input impedance of an infinite dipole is as I have already simply mathematically described. It changes a little with frequency and wire diameter.

Anything less than infinite length will be altogether different.

Now you can stop trying to pull our legs.

Reg.

688. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 20:03:43 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <zE_We.2858$Yu2.2468@trnddc02>
Source record: 70485

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11ioskhlhnsrl9b@corp.supernews.com...
> Jerry Martes wrote:
>>
>> I'd have expected the "gain" to be closer to 4 1/2 db over the 1/4 wave
>> stub over a ground. is it easy to show where i've missed something?
>>
>
> I think it should be more like 3 dB, but hadn't said anything until I had
> a chance to model it. The quarter wave stub doesn't radiate significantly,
> so it can be ignored. A half wavelength element should have about 1.5 dB
> gain over a quarter wave. Two of them would give another 3 dB if it
> weren't for mutual coupling, but the mutual coupling of collinear elements
> reduces the gain to about 1.5 dB over a single element. (See for example
> Fig. 39 on p. 8-35 of the ARRL Antenna Book, 20th Edition; look up
> Collinear, Gain and directivity in the index of other editions; or model
> it with your favorite program.)
>
> Roy Lewallen, W7EL

Thanks Roy

Your posts always add alot to my understanding. I appreciate your taking
time to evaluate this antenna and then pass the information on to the group.

Jerry

689. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 20:05:45 UTC
From: n0vfp_lloyd@yahoo.com
Message-ID: <1126987544.968111.4370@g44g2000cwa.googlegroups.com>
Source record: 70486
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> Weak Richard, but we love you no less.

Yeah, but he's a little older than the boys you usually molest, queer.

>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:t3aji1hsepkfap9c8i3h0j3t592t8nedfd@4ax.com...
> > On Thu, 15 Sep 2005 12:00:29 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> > wrote:
> >
> > >Perhaps you could show me where any of the offered definitions apply to
> an
> > >HOA rule that prohibits non family members from residing in a home.
> >
> > You said it yourself:
> > >>refusing to take in a storm victim
> > exactly conforms to
> > >>>Intolerant toward others - 1645.
> >
> > otherwise, why would you offer your opinion
> > >>while abhorrent to me
> >
> > Christian charity is not fulfilled by a shrug of the HOA committee,
> > and members who enjoy the veil of these rules won't find it any easier
> > getting through the eye of the needle.
> >
> > 73's
> > Richard Clark, KB7QHC

690. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 20:07:06 UTC
From: n0vfp_lloyd@yahoo.com
Message-ID: <1126987626.932046.11490@g44g2000cwa.googlegroups.com>
Source record: 70487
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> Would someone put something in "Uncle Ted's" mouth, my zipper is stuck...

The tweezers get stuck again?

> Uncle Ted" <malican40@verizon.com> wrote in message
>
> > It's bad enough that people feel a need to believe in any deities at
> > all, but when you have to listen to a bunch of old men in robes half a
> > world away tell you how to live your life, you're pretty screwed up.

691. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 21:28:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ip2ji5tbe343a@corp.supernews.com>
Source record: 70488

Jerry Martes wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
>>
>>I think it should be more like 3 dB, but hadn't said anything until I had
>>a chance to model it. The quarter wave stub doesn't radiate significantly,
>>so it can be ignored. A half wavelength element should have about 1.5 dB
>>gain over a quarter wave. Two of them would give another 3 dB if it
>>weren't for mutual coupling, but the mutual coupling of collinear elements
>>reduces the gain to about 1.5 dB over a single element. (See for example
>>Fig. 39 on p. 8-35 of the ARRL Antenna Book, 20th Edition; look up
>>Collinear, Gain and directivity in the index of other editions; or model
>>it with your favorite program.)
>>
>>Roy Lewallen, W7EL
>
>
> Thanks Roy
>
> Your posts always add alot to my understanding. I appreciate your taking
> time to evaluate this antenna and then pass the information on to the group.
>
> Jerry

I'm sorry, I see I wasn't clear in saying that I haven't yet had a
chance to model it. There might be a flaw in my reasoning, and the
antenna might have more gain than I think. I'll try to get to it as soon
as I can -- unless someone else wants to take it on. But I'm extremely
busy just now.

Roy Lewallen, W7EL

692. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 22:18:39 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <3D0Xe.13382$_84.7807@newsread1.news.atl.earthlink.net>
Source record: 70489
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

D A N G.....he posted without talking about Morse Code Testing. Hats off
Lennie.

Dan/W4NTI

<LenAnderson@ieee.org> wrote in message
news:1126987193.132617.297010@g44g2000cwa.googlegroups.com...
>
>>It has NEVER been the DOGMA of the Catholic Church to sell indulgences.
>>PERIOD! A period of clerical abuse of indulgences, contrary to the
>>Doctrinal position of the Church, did exist in history. Martin Luther
>>was correct to cite this failure in clergy practice. The abuse was
>>censured in the Council of Trent [ca 1545 - 1563].
>
>
> Did his karma run over your dogma? :-)
>
>
> LenAnderson@ieee.org
>

693. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-17 22:35:50 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1126996710_4691@spool6-east.superfeed.net>
Source record: 70490

Ham op wrote:
> NOTE: an infinitely long wire in free space cannot be terminated.

Doesn't need to be terminated. Reflections are eliminated
without terminations.

> A terminated wire in an anechoic chamber is not the same as a
> free space model.

Not exactly the same but close enough for government work.
Reflections from the ends and from the walls are reduced
to a negligible value. Been there, done that.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

694. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 00:58:01 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <vqepi15646k72982fpopnljib4hvgl1tqm@4ax.com>
Source record: 70491

On Sat, 17 Sep 2005 19:17:10 GMT, aRKay <REMOVEarkay@qsl.net> wrote:

>In article <1126979647_3729@spool6-east.superfeed.net>,
> Cecil Moore <mycall@arrl.net> wrote:
>
>> aRKay wrote:
>> > I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
>> > meters. I would like to use my existing W9INN fan dipole if possible.
>> > At the present time the fan dipole has three sets of wires from the
>> > common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
>> > another short set of wires cut for 50.125 MHz. Since each of the new
>> > wires will only be 4.67 feet, I plan to use stand offs and run them
>> > close to the 40/80 dipoles. It will be interesting to see if this
>> > really works. Any suggestions for the short stand off insulators?
>>
>> 18 MHz times three equals 54 MHz. The 18 MHz dipole is likely to
>> detune the 6m dipole. See what the 6m SWR is now. You may not
>> need any additional wires.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
>Good point. I may hold off until I get the Ten-Tec 1208 and see what I
>have with the existing mess of wires. HiHi
>
>I don't have an antenna analyser so will have to wait until I generate a
>six meter signal.
>
>Anyone ever tried six meters on an old Ringo Ranger 2 meter antenna?
>
>Dick AA5VU

The ringo ranger is vertical and most 6m stuff is horizontal. On skip
that may not hurt but for local it's very poor.

Allison
KB1GMX

695. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 00:58:02 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <uY2Xe.13041$9i4.9729@newsread2.news.atl.earthlink.net>
Source record: 70492

> Good point. I may hold off until I get the Ten-Tec 1208 and see what I
> have with the existing mess of wires. HiHi
>
> I don't have an antenna analyser so will have to wait until I generate a
> six meter signal.
>
> Anyone ever tried six meters on an old Ringo Ranger 2 meter antenna?
>
> Dick AA5VU

I worked Canada on 6 meters with that transverter. Used a trapped dipole
for 40 to 10 meters.

I doube the ringo would work on 6 due to the way is fed. If it was just a
baseloaded (matched) 5/8 wave 2 meter antenna, it might work fine.

696. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 01:02:39 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <5uepi1tmkb9qenqv47lpg5ch1oge9krf5l@4ax.com>
Source record: 70493

On Sat, 17 Sep 2005 16:43:55 GMT, aRKay <REMOVEarkay@qsl.net> wrote:

>I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
>meters. I would like to use my existing W9INN fan dipole if possible.
>At the present time the fan dipole has three sets of wires from the
>common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
>another short set of wires cut for 50.125 MHz. Since each of the new
>wires will only be 4.67 feet, I plan to use stand offs and run them
>close to the 40/80 dipoles. It will be interesting to see if this
>really works. Any suggestions for the short stand off insulators?
>
>Dick, AA5VU
>aa5vu at arrl.net

That 17m (18mhz) antenna should do well. I run a bunch of antennas
and for local work rather than turning a beam I use a `24ft EDZ with
a stub tuning on each wire to match 50ohms. The oddity of that
antenna is it looks like a plain dipole at 18mhz according to the
MFJ269b.

I'd drive that and see what the SWR looked like, it may be fair
as is. Owing to the amount of wire it may offer some amout of gain
over a plain dipole.

Good luck,
Allison
KB1GMX

697. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 02:22:59 UTC
From: eternalsquire@comcast.net
Message-ID: <1127010179.364313.192090@g14g2000cwa.googlegroups.com>
Source record: 70494

Take a look at the far-field pattern and you'll see why I want it.
Also, it seems that inverted L's rather than verticals lower the
SWR from the thousands to something more sensible.

The Eternal Squire.

698. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 02:59:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ipm0ee3i0982@corp.supernews.com>
Source record: 70495

The feedpoint SWR will depend heavily on the type of feed system used. The 4SqTL.EZ example model included with EZNEC, which uses one of the all-transmission line feed systems described by "The Simplest Phased Array Feed System - That Works", shows a 50-ohm SWR of 3.7 at the feedpoint. Other feed systems are possible using this method, each of which produces a different feedpoint impedance. The combination transmission line - L network method described in Chapter 8 of the ARRL Antenna book produces yet other feedpoint impedances, depending on the transmission line Z0s which are chosen. There's no need to settle for a feedpoint SWR in the thousands, and there's no need to alter your array elements as a means of improving it.

If you use inverted-L elements for a four square array, it seems to me you'd get a different elevation pattern in the various directions, and that the azimuth pattern would be distorted by the directionality of the elements. Have you modeled the full four element array, with the currents phased as they would be for each of the four readily switchable directions?

Roy Lewallen, W7EL

eternalsquire@comcast.net wrote:
> Take a look at the far-field pattern and you'll see why I want it.
> Also, it seems that inverted L's rather than verticals lower the
> SWR from the thousands to something more sensible.
>
> The Eternal Squire.
>

699. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 03:14:27 UTC
From: eternalsquire@comcast.net
Message-ID: <1127013267.286019.162340@g49g2000cwa.googlegroups.com>
Source record: 70496

Roy,

Actually, I have modelled for a single direction, see my original post.
I am using 4nec2 for modelling the far field pattern. Would you be
interested in checking my work to see if anything better can be done?

The Eternal Squire

P.S: Do you have experience with 4-square arrays?

700. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 03:52:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4uopi1hel6vh1gsl0mobt04kaucoeic71k@4ax.com>
Source record: 70497

On 17 Sep 2005 20:14:27 -0700, eternalsquire@comcast.net wrote:
>P.S: Do you have experience with 4-square arrays?
P.P.S. You must be kidding....

written in response to an almost identical query:
On Thu, 15 Sep 2005 16:06:10 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>eternalsquire@comcast.net wrote:
>> Roy,
>>
>> I decided to go with a 20-meter 4 square. I wonder if any people have
>> experience with 4-squares that they can share with me. I have
>> considered some construction details give available materials, and I
>> have some questions.
>
>I've built and used a few, for 40 meters.

P.P.P.S. You might want to visit the archives

701. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 03:55:02 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-A26701.22550217092005@newsclstr02.news.prodigy.com>
Source record: 70498

In article
<REMOVEarkay-6B6CD9.11435517092005@newsclstr02.news.prodigy.com>,
aRKay <REMOVEarkay@qsl.net> wrote:

> I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
> meters. I would like to use my existing W9INN fan dipole if possible.
> At the present time the fan dipole has three sets of wires from the
> common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
> another short set of wires cut for 50.125 MHz. Since each of the new
> wires will only be 4.67 feet, I plan to use stand offs and run them
> close to the 40/80 dipoles. It will be interesting to see if this
> really works. Any suggestions for the short stand off insulators?
>
> Dick, AA5VU
> aa5vu at arrl.net

I have decided to hold off changing anything until I get the Transverter
next week. I will then see if someone is close before I start messing
with extra wires.

The problem with adding another set of wires for 50.125 is how to keep
them from getting tangled in the wind. I have visions of them wrapping
around the 40/80 set of wires.

Stay tuned for what happens. Half the fun of getting a new toy like the
six meter transverter will be finding the right antenna.

Dick aa5Vu

702. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 03:56:16 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-05A123.22561617092005@newsclstr02.news.prodigy.com>
Source record: 70499

In article <vqepi15646k72982fpopnljib4hvgl1tqm@4ax.com>,
nospam@nouce.bellatlantic.net wrote:

> The ringo ranger is vertical and most 6m stuff is horizontal. On skip
> that may not hurt but for local it's very poor.
>
> Allison
> KB1GMX

Good response. I will not waste time messing with the old Ringo Ranger.

703. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 04:00:13 UTC
From: eternalsquire@comcast.net
Message-ID: <1127016013.215083.228210@o13g2000cwo.googlegroups.com>
Source record: 70500

I have no problem asking any or all people who might happen to be
4-square enthusiasts. I've been surfing the net and have found only 3
or 4 who talk about it, I have sent them email too.

The Eternal Squire

704. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 04:18:03 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11ipqjgbblu475f@corp.supernews.com>
Source record: 70501

"aRKay" <REMOVEarkay@qsl.net> wrote in message
news:REMOVEarkay-05A123.22561617092005@newsclstr02.news.prodigy.com...
> In article <vqepi15646k72982fpopnljib4hvgl1tqm@4ax.com>,
> nospam@nouce.bellatlantic.net wrote:
>
>> The ringo ranger is vertical and most 6m stuff is horizontal. On skip
>> that may not hurt but for local it's very poor.
>>
>> Allison
>> KB1GMX
>
> Good response. I will not waste time messing with the old Ringo Ranger.

Don't give up on the vertical too quickly. I use both a 6 meter dipole and a 6 meter J-pole, 90% of my 6 meter contacts have been with the J-pole. Some of the more experienced Hams of my acquaintance have told me that DX sort of works outside of the normal vertical/horizontal polarization expectation. I rarely have any occasion for a local 6 meter
contact. so am not able to speak about that aspect of the 6 meter band.

Harold
KD5SAK

705. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 04:26:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <poqpi11qa6hgc8gsppt31842jasbrs59vr@4ax.com>
Source record: 70502

On 17 Sep 2005 21:00:13 -0700, eternalsquire@comcast.net wrote:

>I have no problem asking any or all people who might happen to be
>4-square enthusiasts.

That's been demonstrated, but why didn't you read and respond to his
answer to your question the first time thru?

>>You can make a 4 square from any kind of element. EZNEC can tell you
>>what effect the element shape will have. I strongly recommend against
>>designing the antenna to get the best or easiest match. Design the
>>antenna for the best performance, then design whatever matching
>>arrangement you need in order to match it. An exception to this general
>>rule is that antennas with an exceptionally low resistance or high
>>reactance might not be practical because of the problem of matching
>>system loss, so such an antenna might need redesign in order to be
>>practical.
>>>
>>> 2) Where can I find or build a reasonably inexpensive phase box?
>>
>>Chapter 8 of the ARRL Antenna Book describes how to design one. See also
>>"The Simplest Phased Array Feed System - That Works" and accompanying
>>program Simpfeed, available from http://eznec.com/Amateur/Articles/.
>>
>>> 3) For the vertical part, I am wanting to a dig a hole 2 foot across by
>>> 3 foot down, and fill with concrete. Into this I would insert a 5
>>> foot length of 1 1/2 inch steel support pipe about midway, so that 2
>>> 1/2 feet are above ground. Into this I would mount a 10 foot length
>>> of 3/4 inch steel pipe with a 2 1/2 foot insulated overlap of PVC
>>> pipe. The 3/4 inch steel pipe would be the bottom of the actual
>>> driven element. Into this I would mount a 10 foot length of 1/2 inch
>>> aluminum pipe with a 2 foot metallic contact overlap, and then I would
>>> finish with rod for vertical or wire for inverted L.
>>
>>Wow, for a 20 meter 4-square? For each element on 40, I drove a 1-1/4" 8
>>foot galvanized chain link fence line pole 4 feet into the ground. (Our
>>soil is clay.) I cut a piece of heavy wall PVC pipe lengthwise into
>>quarters for insulators, and clamped the element to the line pole with
>>muffler clamps with a couple of pieces of the split PVC pipe in between.
>>The elements are three pieces of telescoping 6061-T6 tubing, beginning
>>with, as I recall, 1-1/8" at the bottom. They've been up for around 20
>>years now and survived a couple of pretty strong wind storms.
>>
>>>
>>> Question: how would the 2 1/2 foot overlap of a non-grounded metal

>>> support pipe interfere with radiation of the vertical element?
>>
>>Any shunt impedance will reduce the null depth if the array is adjusted
>>for the correct base current ratio. This is because a different fraction
>>of the current will be diverted from each element because of their
>>differing base impedances. However, I've found that the 4 foot overlap I
>>have doesn't reduce it noticeably. But my overlapping pipes are parallel
>>and, if I understand your description, yours will be coaxial. That'll
>>result in a lot more shunt capacitance, and a correspondingly greater
>>effect on the null. The main lobe won't be affected much.
>>
>>Roy Lewallen, W7EL

To simply blow through that response to then ask:
>Would you be
>interested in checking my work to see if anything better can be done?
>
>The Eternal Squire
>
>P.S: Do you have experience with 4-square arrays?
this hardly [doesn't] acknowledges all the effort that went before it.

706. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 04:45:03 UTC
From: David <groups@orbitcoms.com>
Message-ID: <jh6Xe.51537$FA3.6845@news-server.bigpond.net.au>
Source record: 70503

Cecil, Using a 1/4 wave open stub.

Cecil Moore wrote:
> David wrote:
>
>> I have constructed a 915 MHz 1/2 wave, end fed antenna that fits onto
>> the end of a SMA plug based on help from you guys.
>
>
> How are you matching the very high feedpoint impedance?
>
>> I have some pics of the construction if anyone is interested in taking
>> a look.
>> Where is the appropriate place to post these jpg files ?
>
>
> Some of us have web pages from qsl.net for that purpose.
> There is also a netnews group for that purpose. I think
> it is alt.binaries.

707. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 04:53:23 UTC
From: David <groups@orbitcoms.com>
Message-ID: <7p6Xe.51542$FA3.8337@news-server.bigpond.net.au>
Source record: 70504

Roy,

I am using your EZNEC V4.019. Would you happen to have the ez
description file for this antenna so I can see how it is modeled ?

I had a "play" and set up 2 vertical have wave lengths and set the
source at the centre I then placed a 1/4 wave wire near the lower
1/4 wave and connect them at the centre point with a horizontal wire but
the program kept complaining that the wires were overlapping etc.

I also tried modeling an open stub J-Pole and seemed to be able to get
some plots that look ok but SWR was >100 across the band. Not sure what
I did wrong here but I assume as I get more familiar with modeling
techniques, I will get more meaningful results.

Thanks

Regards

David

Roy Lewallen wrote:
> Jerry Martes wrote:
>
>>
>> I'd have expected the "gain" to be closer to 4 1/2 db over the 1/4
>> wave stub over a ground. is it easy to show where i've missed something?
>>
>
> I think it should be more like 3 dB, but hadn't said anything until I
> had a chance to model it. The quarter wave stub doesn't radiate
> significantly, so it can be ignored. A half wavelength element should
> have about 1.5 dB gain over a quarter wave. Two of them would give
> another 3 dB if it weren't for mutual coupling, but the mutual coupling
> of collinear elements reduces the gain to about 1.5 dB over a single
> element. (See for example Fig. 39 on p. 8-35 of the ARRL Antenna Book,
> 20th Edition; look up Collinear, Gain and directivity in the index of
> other editions; or model it with your favorite program.)
>
> Roy Lewallen, W7EL

708. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 05:56:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iq0c073np7le0@corp.supernews.com>
Source record: 70505

eternalsquire@comcast.net wrote:
> Roy,
>
> Actually, I have modelled for a single direction, see my original post.
> I am using 4nec2 for modelling the far field pattern. Would you be
> interested in checking my work to see if anything better can be done?
>
> The Eternal Squire

Sorry, I don't have the time just now.
>
> P.S: Do you have experience with 4-square arrays?
>

Yes.

709. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 06:07:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iq11vqieblm9a@corp.supernews.com>
Source record: 70506

David wrote:
> Roy,
>
> I am using your EZNEC V4.019. Would you happen to have the ez
> description file for this antenna so I can see how it is modeled ?

Sorry, I haven't had time to model it. But I dusted off a very old, originally ELNEC, model of a 3 element collinear, and uploaded it to my web site. It should give you the general idea. It's Collinear3.EZ at http://eznec.com/misc/.

> . . .

Roy Lewallen, W7EL

710. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 07:18:12 UTC
From: pezSV7BAXdag <pez@otenet.gr>
Message-ID: <dgj4br$qs1$1@usenet.otenet.gr>
Source record: 70507

```
| "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
| news:dghsk2$6cj$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
|
| You had better go back to your old college days
| and start again with new teachers.
|
| The input impedance of an infinite dipole
| is as I have already simply mathematically described.
| It changes a little with frequency and wire diameter.
|
| Anything less than infinite length will be altogether different.
|
| Now you can stop trying to pull our legs.
| ----
| Reg.

Dear Mr. Reg Edwards,

This is an interesting question indeed!

Well,
my wife yinSV7DMCdag has developed sometime an AVI movie

[ in ZIP form:
[ http://antennas.ee.duth.gr/ftp/visualantennas/thedipole/films/fu010100.zip
[ 850 KB

which deals among other properties of a filamentary dipole,
with its Radiation Resistance relative to the Input Terminals (Driving Point)

[ Please take a look if you like
[ in the part D of the movie,
[ at the bottom right of the screen

This is actually the Input Resistance Rinp
of a filamentary dipole of perfect conductivity in free space.

The ratio of dipole length L to wavelength lambda takes values up to 10,
but someone may maintain arguably that either
the limit of Rinp exists in general as infinity or does not exist at all.

Yours Sincerely,

pezSV7BAXdag
```

711. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 07:29:40 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <LBpcZhCkdRLDFweH@g3ohx.demon.co.uk>
Source record: 70508

In message <dgh8uv$c0v$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>, Reg
Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>> What is the impedance at the centre of an infinitely long dipole
>(in
>> free space)?
>
>==============================
>Its not very different from -
>
>Zin = 120 * Ln(Wavelength / d) ohms.
>
>where d = conductor diameter, both measured in metres.
>
>Thus, at wavelength = 80 metres with 14 gauge copper wire, input
>impedance = 1300 ohms approx.
>
>If you don't believe me, just measure it.
>----
>Reg.
>
>

Are you sure it's as high as that, Reg? I once did a Smith Chart plot of
the impedance at the centre of a dipole, the valued being taken from a
table 'compiled by Wu' (LK Wu?). These only catered for a lengths up to
a few wavelengths. As the plot progressed round and round the Smith
Chart, it seemed to be heading for something around 350 to 400 ohms.

I've just done a search on 'Wu+dipole+impedance', and one of the results
is
http://www.fars.k6ya.org/docs/antenna-impedance-models.pdf
I'll have a read of it today.

Cheers,
Ian.
--

712. A lot of good diagrams

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 08:00:10 UTC
From: SOMMERGIBILE <nientem@ilaspammers.it.invalid>
Message-ID: <432d21f4$0$8486$5fc30a8@news.tiscali.it>
Source record: 70509

on:
http://web.tiscali.it/am2zy/index.html

713. E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 09:11:01 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <FaaXe.76409$2n6.14107@fe3.news.blueyonder.co.uk>
Source record: 70510

Just heard mention of the EH Antenna and that it is rather small but equal radiation to a full size dipole !!!.

If this is true, i am very interested as i only have a small garden (35x18 feet) and the EH sounds ideal so anyone with info , it would be greatly appreciated.

I am using a homebrew helical for 80m and a sloping half size G5RV and i am really stuck for space :-/

Lee.....G6ZSG..

714. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 09:20:03 UTC
From: F8BOE <f8boe@bluemail.ch>
Message-ID: <432d3141$0$980$626a14ce@news.free.fr>
Source record: 70511

Was interested too, but gave up. With so many different descriptions for one concept, there must bee something foolish. And I don't want to use my rig as an antenna!

73 de F8BOE Olivier ...-.-

Lee wrote:

> Just heard mention of the EH Antenna and that it is rather small but
> equal radiation to a full size dipole !!!.
>
> If this is true, i am very interested as i only have a small garden (35x18
> feet) and the EH sounds ideal so anyone with info , it would be greatly
> appreciated.
>
> I am using a homebrew helical for 80m and a sloping half size G5RV and i
> am
> really stuck for space :-/
>
> Lee.....G6ZSG..

715. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 09:30:11 UTC
From: pezSV7BAXdag <pez@otenet.gr>
Message-ID: <dgjc3esmr1@usenet.otenet.gr>
Source record: 70512

```
| "Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
| wrote in message news:LBpcZhCkdRLDFweH@g3ohx.demon.co.uk...
| [...]
| it seemed to be heading for something around 350 to 400 ohms.
| [...]
| Ian.

120*pi maybe ...

pezSV7BAXdag
```

716. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 10:51:39 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-ED5B2A.05370318092005@newsclstr02.news.prodigy.com>
Source record: 70513

In article <11ipqjgbblu475f@corp.supernews.com>,
"Harold Burton" <hwburton@cableone.net> wrote:

> "aRKay" <REMOVEarkay@qsl.net> wrote in message
> news:REMOVEarkay-05A123.22561617092005@newsclstr02.news.prodigy.com...
> > In article <vqepi15646k72982fpopnljib4hvgl1tqm@4ax.com>,
> > nospam@nouce.bellatlantic.net wrote:
> >
> >> The ringo ranger is vertical and most 6m stuff is horizontal. On skip
> >> that may not hurt but for local it's very poor.
> >>
> >> Allison
> >> KB1GMX
> >
> > Good response. I will not waste time messing with the old Ringo Ranger.
>
> Don't give up on the vertical too quickly. I use both a 6 meter dipole and a
> 6 meter J-pole, 90% of my 6 meter contacts have been with the J-pole. Some
> of the more experienced Hams of my acquaintance have told me that DX sort of
> works outside of the normal vertical/horizontal polarization expectation. I
> rarely have any occasion for a local 6 meter
> contact. so am not able to speak about that aspect of the 6 meter band.
>
> Harold
> KD5SAK

Thanks Harold. I forgot about the J-pole and I may try one while
playing around with the new stuff.

Dick - AA5VU

717. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 11:46:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgjk2pfck1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70514

> Just heard mention of the EH Antenna and that it is rather small
but equal
> radiation to a full size dipole !!!.
>
==========

Sucker! If you believe that then you'll believe anything.

718. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 12:14:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127045838_7601@spool6-east.superfeed.net>
Source record: 70515

David wrote:
> I also tried modeling an open stub J-Pole and seemed to be able to get
> some plots that look ok but SWR was >100 across the band. Not sure what
> I did wrong here but I assume as I get more familiar with modeling
> techniques, I will get more meaningful results.

The open stub J-Pole (Zepp) is modeled as a shorted stub
J-Pole with the source in the middle of the shorted segment.
Mine is for 53.2 MHz. On edge it looks like this:

```
13.5 ft.
+-------------------------------------------------
|
(S)
|
+-----------------
4.5 ft.
```

The sections are 0.1 ft. apart. The resonant frequency is
53.2 MHz and the feedpoint impedance is 25 ohms for an SWR
of 2:1. The feedpoint is 30 ft. high over high-accuracy
ground. The gain over ground is 6.2 dBi, omnidirectional.
Free space gain is 3.4 dBi.

Anyone who wants a copy of this 6m J-Pole EZNEC file, please
send me an email to mycall@arrl.net.
--
73, Cecil http://www.qsl.net/w5dxp

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719. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 12:17:50 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <OVcXe.76481$2n6.69938@fe3.news.blueyonder.co.uk>
Source record: 70516

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dgjk2pfck1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> > Just heard mention of the EH Antenna and that it is rather small
> but equal
> > radiation to a full size dipole !!!.
> >
> ==========
>
> Sucker! If you believe that then you'll believe anything.
>
>

Hi Reg......how so?, i regard you as among the knowlegeable and look forward to your thoughts on the EH that prompts your comment, `tho it does seem like something for nothing, i don`t wish to appear too dumb!!....i`m currently playing with a helical on 40 and am thinking of making a dipole with a matching helical, i can get that in my postage stamp garden......hi

So you think the EH is a waste of time then??? ;-)

Lee.....G6ZSG...

720. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 12:42:04 UTC
From: Dan Richardson <>
Message-ID: <c2oqi19hmu8db6d3oo29kkg11qu09i5ci7@4ax.com>
Source record: 70517

On Sun, 18 Sep 2005 07:14:39 -0500, Cecil Moore <mycall@arrl.net>
wrote:

>The open stub J-Pole (Zepp) is modeled as a shorted stub
>J-Pole with the source in the middle of the shorted segment.
>Mine is for 53.2 MHz. On edge it looks like this:
>
> 13.5 ft.
> +--
> |
>(S)
> |
> +-----------------
> 4.5 ft.
>
>The sections are 0.1 ft. apart. The resonant frequency is
>53.2 MHz and the feedpoint impedance is 25 ohms for an SWR
>of 2:1. The feedpoint is 30 ft. high over high-accuracy
>ground. The gain over ground is 6.2 dBi, omnidirectional.
>Free space gain is 3.4 dBi.

You can vary the feedpoint impedance by changing (S).

73,
Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

721. Re: Yet another grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 13:21:09 UTC
From: John Ferrell <johnferrell@earthlink.net>
Message-ID: <9RdXe.63$vw6.62@newsread1.news.atl.earthlink.net>
Source record: 70518

You should have all grounds tied together with a minimum of # 6 copper. It is cheap. It is easy. It is code. It will save your equipment and you will never know the trouble you did not have!

--
John Ferrell
http://DixieNC.US

"Joel" <Joel@cyberbest.com> wrote in message news:e704c$43279dcb$943f9237$553@STARBAND.NET...
..
> - I 'should' have the power entrance ground run over to the common ground.
> But it's over 90 feet away and the house has plastic water pipes.. Does it
> make sense to run a copper wire or strap that far? If so, should it be
> berried all the way or run exposed. It seems to me the impedance would be
> so high in the run, that it would be a waste of copper?
>
> TNX
> Joe AG4QC
>

722. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 13:24:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgjppo$55r$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70519

"Lee" wrote
>
> > > Just heard mention of the EH Antenna and that it is rather small
> > but equal
> > > radiation to a full size dipole !!!.
> > >
> > Sucker! If you believe that then you'll believe anything.
> >
>
> Hi Reg......how so?,
==========
Hello Lee,

The EH antenna is a hoax perpetrated by somebody who hopes to make money by selling them. His sales description of how the thing works pretends to make use of the mathematical works of James Clerk Maxwell. It may sound good to novices but is just a load of nonsense.

Actually, its performance is somewhat worse than other antennas of the same physical size.

If it's claims are as marvellous as all that, ask yourself why every amateur doesn't have one, regardless of how big is his backyard. To a smaller extent, the G5RV falls into the same category.

You did right to ask your question.

Reg.

723. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 13:35:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127050673_7845@spool6-east.superfeed.net>
Source record: 70520

Ian Jackson wrote:
> Are you sure it's as high as that, Reg? I once did a Smith Chart plot of
> the impedance at the centre of a dipole, the valued being taken from a
> table 'compiled by Wu' (LK Wu?). These only catered for a lengths up to
> a few wavelengths. As the plot progressed round and round the Smith
> Chart, it seemed to be heading for something around 350 to 400 ohms.

Maybe 377 ohms? Remember that any finite length dipole is a standing
wave antenna and the feedpoint impedance is (Vfor+Vref)/(Ifor+Iref)
where Vfor is the forward voltage phasor, Vref is the reflected
voltage phasor, Ifor is the forward current phasor, and Iref is
the reflected current phasor.

For a 1/2WL resonant dipole the feedpoint impedance is low:
R = (|Vfor|-|Vref|)/(|Ifor|+|Iref|) ~ 73 ohms

For a 1WL (anti)resonant dipole the feedpoint impedance is high:
R = (|Vfor|+|Vref|)/(|Ifor|-|Iref|) ~ 5200 ohms (EZNEC)

An infinite dipole would not be a standing wave antenna. It would
be a traveling wave antenna (as in a terminated rhombic). So the
feedpoint impedance of an infinite dipole would be Vfor/Ifor=Z0.
Since the reflections modify the feedpoint impedance, we might
suspect that Vfor/Ifor falls between the feedpoint impedance for
a 1/2WL dipole and a one WL dipole. Seems to me, the Z0 of the
dipole, i.e. Vfor/Ifor, must be in the ballpark of the square
root of the product of those two feedpoint impedances.
--
73, Cecil http://www.qsl.net/w5dxp

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724. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 13:37:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127050818_7851@spool6-east.superfeed.net>
Source record: 70521

Reg Edwards wrote:

>>Just heard mention of the EH Antenna and that it is rather small
>> but equal radiation to a full size dipole !!!.
>
> Sucker! If you believe that then you'll believe anything.

Now, now, Reg. He didn't say equal RF radiation.
Heat is also radiation. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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725. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 13:47:01 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <432d6f9d_3@newsfeed.slurp.net>
Source record: 70522

"Cecil Moore"
> For a 1/2WL resonant dipole the feedpoint impedance is low:
> R = (|Vfor|-|Vref|)/(|Ifor|+|Iref|) ~ 73 ohms

The 73 ohm radiation resistance value applies to a physical 1/2-wave, thin-wire, linear dipole in free space, however a reactance term of + j42.5 ohms also applies to such a configuration (Kraus 3rd Edition, p. 182).

The dipole length needs to be shorted by several percent in order to zero out the reactance term, at which time (according to Kraus), the resistance term will be about 65 ohms.

RF

726. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 13:48:49 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <5feXe.76569$2n6.48706@fe3.news.blueyonder.co.uk>
Source record: 70523

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dgjppo$55r$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Lee" wrote
snip<

> > Hi Reg......how so?,
> ============================
> Hello Lee,
>
> The EH antenna is a hoax perpetrated by somebody who hopes to make
> money by selling them. His sales description of how the thing works
> pretends to make use of the mathematical works of James Clerk Maxwell.
> It may sound good to novices but is just a load of nonsense.
>
> Actually, its performance is somewhat worse than other antennas of the
> same physical size.
>
> If it's claims are as marvellous as all that, ask yourself why every
> amateur doesn't have one, regardless of how big is his backyard.

Yes, it did cross my mind but i`ve only just heard of it and as i say, i`m
dumb but not too dumb !!! ;-)

> To a
> smaller extent, the G5RV falls into the same category.

Oh!, i`ve got one of those as a sloper........seems to work somewhat, not
brilliant but i can hear stations..... LOL....(wish my garden was bigger
:-/).

>
> You did right to ask your question.

I have an enquiring mind ... ta!.

Lee..

727. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 13:55:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127051915_7863@spool6-east.superfeed.net>
Source record: 70524

Dan Richardson wrote:
> You can vary the feedpoint impedance by changing (S).

Moving the elements to one foot apart increases the
feedpoint resistance to about 50 ohms at resonance
but it decreases the gain and distorts the radiation
pattern since one foot is an appreciable distance
on 6 meters.
--
73, Cecil http://www.qsl.net/w5dxp

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728. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 14:20:02 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <fntqi1lls2qasosuhu6c2crjh5hfe93lmf@4ax.com>
Source record: 70525

On Sat, 17 Sep 2005 23:18:03 -0500, "Harold Burton"
<hwburton@cableone.net> wrote:

>
>"aRKay" <REMOVEarkay@qsl.net> wrote in message
>news:REMOVEarkay-05A123.22561617092005@newsclstr02.news.prodigy.com...
>> In article <vqepi15646k72982fpopnljib4hvgl1tqm@4ax.com>,
>> nospam@nouce.bellatlantic.net wrote:
>>
>>> The ringo ranger is vertical and most 6m stuff is horizontal. On skip
>>> that may not hurt but for local it's very poor.
>>>
>>> Allison
>>> KB1GMX
>>
>> Good response. I will not waste time messing with the old Ringo Ranger.
>
>Don't give up on the vertical too quickly. I use both a 6 meter dipole and a
>6 meter J-pole, 90% of my 6 meter contacts have been with the J-pole. Some
>of the more experienced Hams of my acquaintance have told me that DX sort of
>works outside of the normal vertical/horizontal polarization expectation. I
>rarely have any occasion for a local 6 meter
>contact. so am not able to speak about that aspect of the 6 meter band.
>
>Harold
>KD5SAK

Experience is that my vertical beam hears far less DX than the
horizontal. Occasionally I hear DX on the Vertical that is better
but on confirming the other end is also vertical. So it goes.
I do have vertical for those times where it may help. One thing I do
notice is the noise level of the vertical beam is far worse.

For local use the horizontal is usually 2-3 Sunits higher than the
vertical.

Allison
KB1GMX

729. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 14:21:45 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <0utqi1toov2uefq3esvfma1gp53fhs12jc@4ax.com>
Source record: 70426

On Sun, 18 Sep 2005 03:55:02 GMT, aRKay <REMOVEarkay@qsl.net> wrote:

>In article
><REMOVEarkay-6B6CD9.11435517092005@newsclstr02.news.prodigy.com>,
> aRKay <REMOVEarkay@qsl.net> wrote:
>
>> I just purchased a Ten-Tec 1208 Transverter to get my feet wet on six
>> meters. I would like to use my existing W9INN fan dipole if possible.
>> At the present time the fan dipole has three sets of wires from the
>> common feed point for 40/80, 10 MHz and 18 MHz. My plan is to add
>> another short set of wires cut for 50.125 MHz. Since each of the new
>> wires will only be 4.67 feet, I plan to use stand offs and run them
>> close to the 40/80 dipoles. It will be interesting to see if this
>> really works. Any suggestions for the short stand off insulators?
>>

I have one of those TT1208s and it's been a good tool for 6m. I have
some impressive contacts off it and a 3 element beam. Enjoy it.

Allison

730. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 15:07:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgjvqtksr1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70427

"Lee" wrote -

> i`m currently
> playing with a helical on 40 and am thinking of making a dipole with
a
> matching helical, i can get that in my postage stamp garden ......
>
==========

A back-to-back horizontal helical dipole is a good proposition.
Radiating efficiency is what matters with physically small antennas.
The radiating pattern is whatever you happen to get.

A 1/2-wave helical resonant dipole is considerably more efficient than
a 1/4-wave vertical simply because of the absence of ground connection
losses.

A low dipole does have a small ground loss due to its proximity to
ground. Ideally its height should be at least equal to its overall
length but half that is a satisfactory compromise.

A horizontal helical dipole is the same as a centre-loaded wire with a
very long loading coil. It is easier to match to a feedline than a
vertical and there is a choice of type of line and line impedance.

Either coax or balanced line can be used. Make the loading coil
continuous through the antenna centre and enclose the centre with a
link coupling to the feedline. The number of turns on the coupling
link is dependent on line impedance.

The antenna itself is electrically isolated from the line and remains
nicely balanced about ground.

The greater the diameter of the loading coil former, a rigid plastic
pipe, and the thicker the wire, the higher the efficiency. For 100
watts transmitters, close wound turns of thick enamelled wire are
usually OK.

Resonant frequency is adjusted by pruning the length of the wire or
rods which extend beyond the ends of the coil. If essential due to
space limitations, the end wires can be allowed to fall down towards
the ground but not allowed to swing about in the wind.

Short loaded antennas are essentially single frequency, very narrow
bandwidth devices.

Download program MIDLOAD from website below. It may be of assistance
or at least provide you with something to think about.

In postage-stamp backyards, size-for-size, Magloops are the most
efficient of all very small antennas and can cover several adjacent
bands, but are deceptively difficult/easy/expensive to construct
depending on your ingenuity. Download program MAGLOOP4.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

731. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 15:08:11 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <V6GrnCKbLYLDFwPN@g3ohx.demon.co.uk>
Source record: 70428

In message <1127050673_7845@spool6-east.superfeed.net>, Cecil Moore
<mycall@arrl.net> writes
>Ian Jackson wrote:
>> Are you sure it's as high as that, Reg? I once did a Smith Chart plot
>>of the impedance at the centre of a dipole, the valued being taken
>>from a table 'compiled by Wu' (LK Wu?). These only catered for a
>>lengths up to a few wavelengths. As the plot progressed round and
>>round the Smith Chart, it seemed to be heading for something around
>>350 to 400 ohms.
>
>Maybe 377 ohms? Remember that any finite length dipole is a standing
>wave antenna and the feedpoint impedance is (Vfor+Vref)/(Ifor+Iref)
>where Vfor is the forward voltage phasor, Vref is the reflected
>voltage phasor, Ifor is the forward current phasor, and Iref is
>the reflected current phasor.
>
>For a 1/2WL resonant dipole the feedpoint impedance is low:
>R = (|Vfor|-|Vref|)/(|Ifor|+|Iref|) ~ 73 ohms
>
>For a 1WL (anti)resonant dipole the feedpoint impedance is high:
>R = (|Vfor|+|Vref|)/(|Ifor|-|Iref|) ~ 5200 ohms (EZNEC)
>
>An infinite dipole would not be a standing wave antenna. It would
>be a traveling wave antenna (as in a terminated rhombic). So the
>feedpoint impedance of an infinite dipole would be Vfor/Ifor=Z0.
>Since the reflections modify the feedpoint impedance, we might
>suspect that Vfor/Ifor falls between the feedpoint impedance for
>a 1/2WL dipole and a one WL dipole. Seems to me, the Z0 of the
>dipole, i.e. Vfor/Ifor, must be in the ballpark of the square
>root of the product of those two feedpoint impedances.

Yes, I did think of 377 ohms (which I understand is 'the impedance of
free space'), but I'm no expert in these matters.

As you indicate, the impedance must lie somewhere between 73 and 5200
ohms. You suggest that this might be something like the square root of
the product of those two feedpoint impedances (the geometric mean),
which gives 616 ohms. However, you would see 600 ohms simply by looking
into an infinite length of 600 ohm feeder, which has parallel,
non-radiating conductors. If the length of the feeder was relatively
short (compared with infinity!!), pulling the conductors apart would
increase the impedance (probably to a lot more than 616 ohms). The
question is, 'when does radiation start to influence the impedance?'

If you look at K6OIK's paper at
http://www.fars.k6ya.org/docs/antenna-impedance-models.pdf
and look at, for example, page 22, you can see how the feed impedance at odd halfwaves increases, and at even halfwaves, decreases. I only found this paper this morning, and haven't had time to look to see which (if any) of the many formulas was used to obtain the plot. It must be possible to get close to the infinity condition by entering values for a very, very long dipole.

Cheers,
Ian.

--

732. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 15:17:43 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <i712XiMXUYLDFwoy@g3ohx.demon.co.uk>
Source record: 70429

In message <dgjppo$55r$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>, Reg
Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>
>"Lee" wrote
>>
>> > > Just heard mention of the EH Antenna and that it is rather small
>> > but equal
>> > > radiation to a full size dipole !!!.
>> > >
>> > Sucker! If you believe that then you'll believe anything.
>> >
>>
>> Hi Reg......how so?,
>============================
>Hello Lee,
>
>The EH antenna is a hoax perpetrated by somebody who hopes to make
>money by selling them. His sales description of how the thing works
>pretends to make use of the mathematical works of James Clerk Maxwell.
>It may sound good to novices but is just a load of nonsense.
>
>Actually, its performance is somewhat worse than other antennas of the
>same physical size.
>
>If it's claims are as marvellous as all that, ask yourself why every
>amateur doesn't have one, regardless of how big is his backyard. To a
>smaller extent, the G5RV falls into the same category.
>
>You did right to ask your question.
>----
>Reg.
>
>

Didn't Radio 252 (252kHz) near Dublin start out using an E-H antenna?
And wasn't there a new high-power SW station in Egypt which was supposed
to use one too? I've feeling that with the latter, they pulled it down
and used a conventional antenna.
Ian.
--

733. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 15:33:19 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <3NfXe.76646$2n6.18285@fe3.news.blueyonder.co.uk>
Source record: 70430

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dgjvqtksr1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Lee" wrote -
>
> > i`m currently
> > playing with a helical on 40 and am thinking of making a dipole with
> a
> > matching helical, i can get that in my postage stamp garden ......
> >
> ==========
>
> A back-to-back horizontal helical dipole is a good proposition.
> Radiating efficiency is what matters with physically small antennas.
> The radiating pattern is whatever you happen to get.
>
> A 1/2-wave helical resonant dipole is considerably more efficient than
> a 1/4-wave vertical simply because of the absence of ground connection
> losses.
>
> A low dipole does have a small ground loss due to its proximity to
> ground. Ideally its height should be at least equal to its overall
> length but half that is a satisfactory compromise.
>
> A horizontal helical dipole is the same as a centre-loaded wire with a
> very long loading coil. It is easier to match to a feedline than a
> vertical and there is a choice of type of line and line impedance.
>
> Either coax or balanced line can be used. Make the loading coil
> continuous through the antenna centre and enclose the centre with a
> link coupling to the feedline. The number of turns on the coupling
> link is dependent on line impedance.
>
> The antenna itself is electrically isolated from the line and remains
> nicely balanced about ground.
>
> The greater the diameter of the loading coil former, a rigid plastic
> pipe, and the thicker the wire, the higher the efficiency. For 100
> watts transmitters, close wound turns of thick enamelled wire are
> usually OK.
>
> Resonant frequency is adjusted by pruning the length of the wire or
> rods which extend beyond the ends of the coil. If essential due to
> space limitations, the end wires can be allowed to fall down towards

> the ground but not allowed to swing about in the wind.
>
> Short loaded antennas are essentially single frequency, very narrow
> bandwidth devices.
>
> Download program MIDLOAD from website below. It may be of assistance
> or at least provide you with something to think about.
>
> In postage-stamp backyards, size-for-size, Magloops are the most
> efficient of all very small antennas and can cover several adjacent
> bands, but are deceptively difficult/easy/expensive to construct
> depending on your ingenuity. Download program MAGLOOP4.

Yes had a look at that one, gave me a few ideas as i like constructional projects.....You`ve given me a lot to think about Reg, it`s either a helical dipole or a magloop ..... there is a helical 40mtr beam in the ARRL handbook i`ve been looking at too....

Thanks .

Lee.

734. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 16:14:47 UTC
From: eternalsquire@comcast.net
Message-ID: <1127060087.536612.308710@o13g2000cwo.googlegroups.com>
Source record: 70431

Oops. I missed the line "I've built and used a few, for 40 meters"
as I had been scanning replies.

My apologies. Can we start over?

The Eternal Squire

735. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 16:15:36 UTC
From: eternalsquire@comcast.net
Message-ID: <1127060136.110161.215280@g43g2000cwa.googlegroups.com>
Source record: 70432

Very well. Thanks anyway.

The Eternal Squire

736. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 16:20:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dp4ri1p7vpumvbjnsmkhk5t2l91kmfkci1@4ax.com>
Source record: 70433

On 18 Sep 2005 09:14:47 -0700, eternalsquire@comcast.net wrote:

>My apologies. Can we start over?

Hi OM,

One way, instead of asking Roy to do what he has already done (in
software if nowhere else) is to simply visit his site
http://www.eznec.com/
download his test version of EZNEC, open the file
4SQTL.EZ
and observe the differences between your work and his.

73's
Richard Clark, KB7QHC

737. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 17:02:56 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <xPednSuQW58rALDeRVn-1w@comcast.com>
Source record: 70434

<nospam@nouce.bellatlantic.net> wrote in message
>>>>>>>>>>>>>>>
>Occasionally I hear DX on the Vertical that is better
> but on confirming the other end is also vertical. So it goes.
> I do have vertical for those times where it may help. One thing I do
> notice is the noise level of the vertical beam is far worse.
>
> For local use the horizontal is usually 2-3 Sunits higher than the
> vertical.
>
> Allison
> KB1GMX

Before somebody tells you that polarization is unimportant for a skip signal, your 6 meter observations parallel what I found on 40. I had a 40 dipole and 40 GP vertical. In round table test with stations 400 - 800 miles away, people with verticals preferred my vertical, and people with dipoles preferred my dipole. There were a few people who could not tell the difference.

Tam/WB2TT

738. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 18:35:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgkc2e$nk5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70435

"F8BOE" wrote
> Was interested too, but gave up. With so many different descriptions
for one
> concept, there must be something foolish.

==========

Hello Olivier,

Nice to see a French contributor to this newsgroup. I am a foreigner
myself but they make me feel at home provided I don't disagree too
much with their technical opinions.

Reg, G4FGQ.

739. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 19:25:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgkevs$29b$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70436

Professional radio engineers are disgraced and should be ashamed of
being taken in by the bafflegab which would not have fooled cb-ers.

740. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 20:50:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11irkp8rmnk0ta0@corp.supernews.com>
Source record: 70437

In King and Harrrison's _Antennas and Waves_, they show a plot of calculated antenna feedpoint impedance as X vs R up to about 5 wavelengths. Antenna wire radius is 0.008496 wavelength. The Z of an infinite length antenna is indicated by locating the centers of the circles and noting that the center converges. The point of convergence for this particular wire radius is about 250 - j170 ohms.

In the chapter on experimental measurements, there's a plot of the calculated admittance of an antenna of radius 0.000635 wavelength up to about 10 wavelengths. Superimposed are measured values from another source which show very good agreement. The theoretical values converge at 214 - j189 ohms, and the measured values at 218 - j174 ohms.

Dervivation takes about a chapter of very heavy math, and numerical results were obtained with a computer.

Roy Lewallen, W7EL

741. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 20:57:41 UTC
From: richardharrison@webtv.net
Message-ID: <14168-432DD4C5-697@storefull-3257.bay.webtv.net>
Source record: 70439

Ian Jackson wrote:
"Maybe 377 ohms?"

Arnold B. Bailey in "TV and Other Receiving Antennas" shows his calculations of radiation resistance at the current maximum point for a center-fed thin dipole at its various resonances:

1st----------72 ohms
2nd----------200 ohms
3rd----------102 ohms
4th----------260 ohms
5th----------117 ohms
6th----------295 ohms
7th----------127 ohms
8th----------321 ohms
9th----------135 ohms
10th----------340 ohms

He also shows the current distributions and feed point resistances which I can`t and won`t.

The input resistance of the center-fed antenna at resonance never equals the surge resistance in value, but is related to it.

Best regards, Richard Harrison, KB5WZI

742. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 21:00:49 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c91ff$432dd59e$97d56a13$10736@ALLTEL.NET>
Source record: 70438

Don't hold back Reg, tell us what you really think. :>)

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dgkevs$29b$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> Professional radio engineers are disgraced and should be ashamed of
> being taken in by the bafflegab which would not have fooled cb-ers.
>
>

743. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 21:39:01 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <kfnri1l604qmhpma7s6og9gcqdh4jk8k3k@4ax.com>
Source record: 70440

On Sun, 18 Sep 2005 18:35:58 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"F8BOE" wrote
>> Was interested too, but gave up. With so many different descriptions
>for one
>> concept, there must be something foolish.
>
>==========
>
>Hello Olivier,
>
>Nice to see a French contributor to this newsgroup. I am a foreigner
>myself but they make me feel at home provided I don't disagree too
>much with their technical opinions.
>----
>Reg, G4FGQ.
>
And we'll keep you feeling right at home, Reg, as long as you continue
to savor our California wine products and thus favor us with your dry
witicisms.

Walt

744. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 22:51:02 UTC
From: David <groups@orbitcoms.com>
Message-ID: <qbmXe.55374$FA3.36514@news-server.bigpond.net.au>
Source record: 70441

Thanks for the model, I'll try it.

What is the diameter of the elements. I understand you can also vary the feedpoint impedance by changing element diameter ? (Zo = 276 log(2S/d)

Regards
David

Dan Richardson wrote:
> On Sun, 18 Sep 2005 07:14:39 -0500, Cecil Moore <mycall@arrl.net>
> wrote:
>
>
>
>>The open stub J-Pole (Zepp) is modeled as a shorted stub
>>J-Pole with the source in the middle of the shorted segment.
>>Mine is for 53.2 MHz. On edge it looks like this:
>>
>> 13.5 ft.
>> +---
>> |
>>(S)
>> |
>> +-----------------
>> 4.5 ft.
>>
>>The sections are 0.1 ft. apart. The resonant frequency is
>>53.2 MHz and the feedpoint impedance is 25 ohms for an SWR
>>of 2:1. The feedpoint is 30 ft. high over high-accuracy
>>ground. The gain over ground is 6.2 dBi, omnidirectional.
>>Free space gain is 3.4 dBi.
>
>
> You can vary the feedpoint impedance by changing (S).
>
> 73,
> Danny, K6MHE
>
> email: k6mhe<at>arrl<dot>net
> http://users.adelphia.net/~k6mhe/

745. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-18 23:27:09 UTC
From: David <groups@orbitcoms.com>
Message-ID: <hJmXe.55431$FA3.19487@news-server.bigpond.net.au>
Source record: 70442

That model seems to work fine in EZNEC.

I tried a 918 MHz version with long length = 219mm, short length = 72mm,
24mm apart, 1.5mm solid aluminum construction.

The results show excellent SWR and feedpoint impedance close to 50
Ohms.(50.29 -j0.0148), SWR = 1.006
The unit is not so omnidirectional showing a front/back ratio of
5.79dB.(Beamwidth 214.4 Degrees).

The maximum gain was 4.74dB(ref) at 4 degrees (elevation). dB ref =
2.14dBi so I suppose this is saying gain is 4.74dBd.

Dan Richardson wrote:
> On Sun, 18 Sep 2005 07:14:39 -0500, Cecil Moore <mycall@arrl.net>
> wrote:
>
>
>
>>The open stub J-Pole (Zepp) is modeled as a shorted stub
>>J-Pole with the source in the middle of the shorted segment.
>>Mine is for 53.2 MHz. On edge it looks like this:
>>
>> 13.5 ft.
>> +--
>> |
>>(S)
>> |
>> +-----------------
>> 4.5 ft.
>>
>>The sections are 0.1 ft. apart. The resonant frequency is
>>53.2 MHz and the feedpoint impedance is 25 ohms for an SWR
>>of 2:1. The feedpoint is 30 ft. high over high-accuracy
>>ground. The gain over ground is 6.2 dBi, omnidirectional.
>>Free space gain is 3.4 dBi.
>
>
> You can vary the feedpoint impedance by changing (S).
>
> 73,
> Danny, K6MHE
>
> email: k6mhe<at>arrl<dot>net
> http://users.adelphia.net/~k6mhe/

746. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 00:05:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11is06kpq8d7be4@corp.supernews.com>
Source record: 70443

David wrote:
> That model seems to work fine in EZNEC.
>
> I tried a 918 MHz version with long length = 219mm, short length = 72mm,
> 24mm apart, 1.5mm solid aluminum construction.
>
> The results show excellent SWR and feedpoint impedance close to 50
> Ohms.(50.29 -j0.0148), SWR = 1.006
> The unit is not so omnidirectional showing a front/back ratio of
> 5.79dB.(Beamwidth 214.4 Degrees).

That's pretty strange. The only ready explanation is radiation from the transmission line section. Apparently it's significant with the 0.074 wavelength conductor spacing.

> The maximum gain was 4.74dB(ref) at 4 degrees (elevation). dB ref =
> 2.14dBi so I suppose this is saying gain is 4.74dBd.

If the antenna is in free space, the currents in the elements are exactly in phase, and the transmission line radiation is negligible, the gain should be maximum broadside to the antenna, not at 4 degrees elevation. So one or more of those conditions isn't true. The horizontal directivity indicates that the transmission line section is radiating, but I wonder also if you might be modeling it over ground.

The gain is 4.7 dB relative to a dipole in free space. If you're modeling it over ground, the gain isn't 4.7 dB over a dipole at the same height above ground, which is why I dislike the term "dBd". (But antenna manufacturers who can capitalize on the ambiguity love it.) If you're modeling it over ground and want to know the gain over a dipole at the same height, model a dipole at that height and compare gains.

Roy Lewallen, W7EL

747. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 00:08:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11is0bc7ecfdd7d@corp.supernews.com>
Source record: 70444

David wrote:
> Thanks for the model, I'll try it.
>
> What is the diameter of the elements. I understand you can also vary the
> feedpoint impedance by changing element diameter ? (Zo = 276 log(2S/d)

Open the EZNEC file. In the main window, click the Wires line to open the Wires Window. Find the Diameter column, where you'll see the diameter of each conductor.

The equation you give is approximately the characteristic impedance of a transmission line, not the feedpoint impedance of a J-pole. The relationship between the two is very tenuous and complex.

Roy Lewallen, W7EL

748. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 01:10:12 UTC
From: David <groups@orbitcoms.com>
Message-ID: <UdoXe.10$4f3.2@news-server.bigpond.net.au>
Source record: 70445

Roy,

The model I used for the open stub J-pole was not the same as your 3
element col.

I used a vertical long element and vertical short element. They were
joined by a horizontal element at the base. The source was set at 50%
along the horizontal bar as per your diagram.

I changed the model for free space rather than over real ground but this
has not helped the directional aspects of the plot.

The dimensions were scaled form those shown for a 150MHz open ended
J-pole shown on Arrow Electronics site

http://www.arrowantennas.com/j-pole.html

Roy Lewallen wrote:
> David wrote:
>
>> Thanks for the model, I'll try it.
>>
>> What is the diameter of the elements. I understand you can also vary
>> the feedpoint impedance by changing element diameter ? (Zo = 276
>> log(2S/d)
>
>
> Open the EZNEC file. In the main window, click the Wires line to open
> the Wires Window. Find the Diameter column, where you'll see the
> diameter of each conductor.
>
> The equation you give is approximately the characteristic impedance of a
> transmission line, not the feedpoint impedance of a J-pole. The
> relationship between the two is very tenuous and complex.
>
> Roy Lewallen, W7EL

749. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 01:41:46 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dgl50orgj1@mailhub227.itcs.purdue.edu>
Source record: 70446

A wooden utility pole with a length of 40 feet above ground would do the job for me. It's just that I am not sure how the neighbors would react. A search of the web did show that there are fiber glass flag poles available that have sufficient height, but I don't know if they can support the weight of 100 feet of 3/4 in copper pipe and a 10-15 lb remotely tuned capacitor inside a weather-proof box.

"Edward A. Feustel" <efeustel@direcway.com> wrote in message
news:N9idnUMgF7L5LbfeRVn-1A@giganews.com...
>
> "John N9JG" <john@gotwals.xremovey.com> wrote in message
> news:dgc7u7$9h8$1@mailhub227.itcs.purdue.edu...
>>I am in the planning stage for a 160 meters compact loop antenna. A loop
>>antenna may not have metal nearby, so I am planning to use a wooden pole
>>to support the top of the loop. In the ARRL Antenna handbook, it states
>>that "W5QJR made a pole of 2 x 4-inch lumber with 1 x 4-inch boards on
>>either side to form an I section. He held the boards together with
>>1/4-inch bolts, 2 feet apart and tied rope guys to the top. This made an
>>excellent mast up to 50 feet high."
>>
>> Does anyone have any comments on the feasibility of an unguyed pole using
>> this same type of construction? Naturally, a portion of the pole would
>> have to be underground, and perhaps set in concrete. What about a 50 feet
>> pole, with 10 feet underground ,which would give you a 40 foot mast?
>>
>> An alternative would be to have a contractor install a 40 feet utility
>> pole, but I assume the wooden pole described above would be less of an
>> eyesore (to the neighbors) than a utility pole.
>>
>> Any comments and advice will be appreciated.
>> John, N9JG
>>
> If you really want to have the "mast" unsupported, consider a 50-60'
> telephone pole
> properly installed (for your type of soil) with one end buried deeply.
> Perhaps you could
> use a fiberglass extension from its top to support the antenna.
>
> It would be worth your while to have a mechanical engineer calculate your
> design's survival
> characteristics in high wind and compare it with 100 year records for high
> wind speed. Also you
> might consider the prospect of icing if you live in a northern climb -- I
> assume that the mast

> is at a corner of the loop.
> Regards,
> Ed, N5EI
>

750. Re: If to HF preselector design needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 01:58:45 UTC
From: gagnonrchrd@netscape.net
Message-ID: <1127095125.014166.270590@g49g2000cwa.googlegroups.com>
Source record: 70447
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

This site might have some suggestions.

http://www.geocities.com/amdxlog/index.html

and maybe

http://www.qsl.net/wa1ion/

Cheers

Richard

751. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 02:11:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11is7ii8shfs8fb@corp.supernews.com>
Source record: 70448

Two other cautions for anyone modeling a J-pole with any NEC-2 based program:

1. Be sure to read the EZNEC manual section "Closely Spaced Wires" -- you'll find it in the index.
2. Run an Average Gain test. (See "Average Gain, Detecting source placement problems" in the manual index.) The small loop in closed-ended J-poles can be a problem for NEC-2. If the Average Gain test shows a problem, using the double precision calculating engine (available in EZNEC+) might help.

Roy Lewallen, W7EL

David wrote:
> Roy,
>
> The model I used for the open stub J-pole was not the same as your 3
> element col.
>
> I used a vertical long element and vertical short element. They were
> joined by a horizontal element at the base. The source was set at 50%
> along the horizontal bar as per your diagram.
>
> I changed the model for free space rather than over real ground but this
> has not helped the directional aspects of the plot.
>
> The dimensions were scaled form those shown for a 150MHz open ended
> J-pole shown on Arrow Electronics site
>
> http://www.arrowantennas.com/j-pole.html

752. Re: How to weather-seal an upside down Tailtwister rotor?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 02:20:33 UTC
From: russ <russ_@russ.com>
Message-ID: <432E206F.C8E0D41@russ.com>
Source record: 70449
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna

hi,

A large sheet of 6 mil clear plastic should be able to
cover the tower and the folded over section.

Place a container of DampRid on the rotor shelf
before you cover the tower with the plastic sheets.

Two layer of sheet should do the trick.

Drape the plastic 4 or 5 feet below the rotor,
no way for any water to get inside the rotor.

Tie it tiht with some good rope and your done.

The damp rid will absorb any moisture that it
trapped during the day from the hot sun
heating up the top of the 'rotor bag' you just made.

Or just take the rotor inside.

good luck with the repairs.

russ

753. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 03:12:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127099727_10687@spool6-east.superfeed.net>
Source record: 70450

Roy Lewallen wrote:
> The theoretical values converge
> at 214 - j189 ohms, and the measured values at 218 - j174 ohms.

Free space? As a data point, I pushed EZNEC to the limit on 40m
with a 9000 ft. dipole. Resonant feedpoint resistance at
7.152 is 390 ohms. Anti-resonant feedpoint resistance at 7.092
is 1980 ohms. It appears that EZNEC would converge to something
in between those two values for an infinite dipole in free space.
I ran into the segment limit at 66 wavelengths.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

754. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 03:13:24 UTC
From: eternalsquire@comcast.net
Message-ID: <1127099604.554374.128080@g49g2000cwa.googlegroups.com>
Source record: 70451

Thanks,

I shal give that a try

755. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 03:20:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127100215_10699@spool6-east.superfeed.net>
Source record: 70452

Richard Harrison wrote:

> Ian Jackson wrote:
> "Maybe 377 ohms?"
>
> Arnold B. Bailey in "TV and Other Receiving Antennas" shows his
> calculations of radiation resistance at the current maximum point for a
> center-fed thin dipole at its various resonances:
>
> 1st---------------------------------72 ohms
> 2nd--------------------------------200 ohms
> 3rd--------------------------------102 ohms
> 4th--------------------------------260 ohms
> 5th--------------------------------117 ohms
> 6th--------------------------------295 ohms
> 7th--------------------------------127 ohms
> 8th--------------------------------321 ohms
> 9th--------------------------------135 ohms
> 10th-------------------------------340 ohms

Note that those are not the feedpoint impedances. They are
based on the current maximum points which often occur
somewhere besides the feedpoint.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

756. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 05:30:15 UTC
From: kashe@sonic.net
Message-ID: <r9jsi1pk9q0nunt0g1e76pe1u4m55vn9u3@4ax.com>
Source record: 70453
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 15 Sep 2005 12:00:29 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Perhaps you could show me where any of the offered definitions apply to an
>HOA rule that prohibits non family members from residing in a home.
>
>
The "wedded to ...." one

>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:4o4ji1p26o2mcctbkfbuugpan1qmlt05nd@4ax.com...
>> On Thu, 15 Sep 2005 10:41:17 -0400, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >A few moments spent perusing a dictionary will show that simply refusing
>to
>> >take in a storm victim, while abhorrent to me, does not make one a bigot.
>> >
>> from the Oxford English Dictionary:
>>
>> Bigot. 1598. 1. A hypocrite. 2. A superstitious person - 1664. 3. A
>> person obstinately and unreasonably wedded to a creed, opinion or
>> ritual - 1661. Intolerant toward others - 1645.
>>
>> Hardly seems that the meaning has veered from this in the past 340
>> years.
>>
>> 73's
>> Richard Clark, KB7QHC
>

757. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 05:32:16 UTC
From: kashe@sonic.net
Message-ID: <jcjsi19aa22rklfpm3609j8s27lgorvjvj@4ax.com>
Source record: 70454
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 15 Sep 2005 13:55:56 -0500, Cecil Moore <mycall@arrl.net>
wrote:

>Richard Clark wrote:
>> Christian charity is not fulfilled by a shrug of the HOA committee,
>> and members who enjoy the veil of these rules won't find it any easier
>> getting through the eye of the needle.
>
>The small "eye of the needle" gate at the walls of a city
>was sized for human beings. It was camels that couldn't
>get through it. Camels had to enter through the main gate.

But the reference was to it being as difficult for a rich man
(as in dweller of the gated community type) as for the camel ....

758. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 05:35:14 UTC
From: kashe@sonic.net
Message-ID: <ifjsi19ahovucm7g2o2tphfonraf9on57r@4ax.com>
Source record: 70455
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 15 Sep 2005 19:09:05 GMT, "Kï¿½HB" <groupk0hb@earthlink.net>
wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote
>
>>
>> Christian charity is not fulfilled by a shrug of the HOA committee,
>> and members who enjoy the veil of these rules won't find it any easier
>> getting through the eye of the needle.
>>
>
>How is "Christian charity" different from other charity, and do I need to be a
>member of your cult in order to get through the eye of the needle (and why would
>I want to?)?
>
>73, de Hans, K0HB

It's (at the very least) expected to be the ideal of the
Christian. Would youu care to expand on the ideals of "atheist
charity" or whatever defined variety you prefer?

759. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 05:38:35 UTC
From: kashe@sonic.net
Message-ID: <dmjsi15nau39vftr46s6rbebhnlrj7667c@4ax.com>
Source record: 70456
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 15 Sep 2005 14:57:56 -0700, "an_old_friend" <konstans@hotmail.com>
wrote:

>
>Richard Clark wrote:
>> On Thu, 15 Sep 2005 19:09:05 GMT, "Kï¿½HB" <groupk0hb@earthlink.net>
>> wrote:
>>
>> >How is "Christian charity" different from other charity
>>
>> Hi Hans,
>>
>> I will leave that to other faiths to describe for themselves. One
>> distinct difference between Christian charity and Islamic charity is
>> that Muslims are commanded to give the expected portion of their
>> charity directly to the afflicted. This means hand-to-hand.
>>
>> >, and do I need to be a
>> >member of your cult in order to get through the eye of the needle (and why would
>> >I want to?)?
>>
>> Complete the allusion and enlighten us to which cult offers fare
>> discounts for buying the way to Heaven. Of course, if you have no
>> interest in the destination, then the subject is rather transparent
>> and hardly requires comment.
>
>Discounts I don't know but Chatholic dogma still provides for the sale
>of Indulenges for sin

Far from correct. Catholiic dogma in fact has a specific name
for the sin of selling indulgences or objects which have been blessed
-- it's called simony. Since at least the 40s, AFAIK.

>, even allowing them to be purchased for yone
>firend and relitives post mortem
>
>Luther thought the practice pro and so do most prods groups
>>
>> 73's
>> Richard Clark, KB7QHC

760. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 05:41:38 UTC
From: kashe@sonic.net
Message-ID: <5ujsi196c3dl0l0a7su4uqltnt4u0ql4ko@4ax.com>
Source record: 70457
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 16 Sep 2005 23:01:22 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On 15 Sep 2005 14:57:56 -0700, "an_old_friend" <konstans@hotmail.com>
>wrote:
>
>
>>Discounts I don't know but Chatholic dogma still provides for the sale
>>of Indulenges for sin, even allowing them to be purchased for yone
>>firend and relitives post mortem
>>
>>Luther thought the practice pro and so do most prods groups
>
>It's bad enough that people feel a need to believe in any deities at
>all, but when you have to listen to a bunch of old men in robes half a
>world away tell you how to live your life, you're pretty screwed up.

Is this a slam against our Muslim brethren? A comment on the
position of Saudi Arabian women?

761. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 05:56:51 UTC
From: kashe@sonic.net
Message-ID: <aqksi1pkgngsmciu6c6najejudkrsnk53n@4ax.com>
Source record: 70458

On Thu, 15 Sep 2005 10:28:40 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 15 Sep 2005 12:01:35 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>In light of Colin Powell's position that the fate of the poorer people
>>of New Orleans was not due to racism, but only failing to realize
>>that those people had no means for transportation out of the city, it
>>seems to me that racism and bigotry were not involved. To me it's
>>significant that that position is held by a highly-respected person of
>>color.
>
>Hi Walt,
>
>Being bigoted does not necessarily mean one is racist. Bigots can
>focus their intolerance on many subjects and be perfectly race-free.
>On the flip side being racist automatically carries the label bigot.
>
>Bigots are quite easily recognized, that is why there is the name to
>denote the obvious. Certainly there is nothing subtle about this. I
>cannot say that I have seen more than 20 minutes coverage on the
>storm, especially when "news" is so evidently not informative as it is
>salacious entertainment. They could have as easily run the movie
>"Twister" to no different effect.
>
>Further, those 20 minutes were not watched here, but in England where
>the world was astonished by the third world class of impoverished
>action taken.
>
>As such, the folks at Fox would call me a bigot for being intolerant
>of their coverage. However, it would be the Fox folks who serve the
>American feed because their International feed was distinctly
>different. None of you probably observed Rumsfield's visit,
>un-edited, where the populace in a rage were yelling "Fuck YOU" at
>him. I would suppose they were bigots too, given the inflexibility of
>their opinion after rafting on the rooftops.
>
>Fox was content to satisfy any audience, and I suppose that makes them
>most catholic. [For those who are short on dictionary skills,
>catholic means liberal or tolerant, a most amusing irony applied to
>the Fox organization that literally serves all masters.]

Actually, at root, it means universal or "for all" (Greek kata
and holos).

>
>73's
>Richard Clark, KB7QHC

762. 802.11 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 10:21:18 UTC
From: titus@ieee.org
Message-ID: <1127125278.923840.211310@z14g2000cwz.googlegroups.com>
Source record: 70460

Hello,

Can someone tell me what type of electical length does 802.11 antennas (lambda/2, lambda/4, etc) have? The 2.4GHz has 12.5cm wavelength but none of the rubber duck antennas that come with the wirless router have a length of 12.5cm, 6.25cm, or 3.125cm, etc.

I recently purchased a 9dBi antenna to replace the 2.2dBi stock rubber ducks. It also does not appear to measure in any n*lambda/4 lengths. What puzzles me is that an outdoor $200 antenna of 3 foot long and a $60 antenna of slightly less than 1 ft both have about the same gain.

And before the purchase I have tried to make a few higher gain antennas out of a wire coat hanger in n*lambda/4 lengths but they don't have much of an impact in signal strength. Why?

I did an antenna course years ago and remember the gain of a monopole is related to its radiation resistance, which is proportional to n*lambda/4 from what I can recall.

Thanks!

763. Re: 802.11 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 11:08:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <aeednfwyu8-GAbPeRVn-1A@crocker.com>
Source record: 70463

welcome to the foggy world of advertised antenna properties. i would guess that in the 802.11 stuff there is probably just as little control over quotes of antenna gains, measurement methods, etc as there is an amateur antennas... this is why for a long time the arrl refused to print antenna gain numbers.

<titus@ieee.org> wrote in message
news:1127125278.923840.211310@z14g2000cwz.googlegroups.com...
> Hello,
>
> Can someone tell me what type of electical length does 802.11 antennas
> (lambda/2, lambda/4, etc) have? The 2.4GHz has 12.5cm wavelength but
> none of the rubber duck antennas that come with the wirless router have
> a length of 12.5cm, 6.25cm, or 3.125cm, etc.
>
> I recently purchased a 9dBi antenna to replace the 2.2dBi stock rubber
> ducks. It also does not appear to measure in any n*lambda/4 lengths.
> What puzzles me is that an outdoor $200 antenna of 3 foot long and a
> $60 antenna of slightly less than 1 ft both have about the same gain.
>
> And before the purchase I have tried to make a few higher gain antennas
> out of a wire coat hanger in n*lambda/4 lengths but they don't have
> much of an impact in signal strength. Why?
>
> I did an antenna course years ago and remember the gain of a monopole
> is related to its radiation resistance, which is proportional to
> n*lambda/4 from what I can recall.
>
> Thanks!
>

764. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 11:44:49 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <zIudnYushuV_ObPeRVn-rQ@comcast.com>
Source record: 70464
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

kashe@sonic.net wrote:

SNIPPED

>>Discounts I don't know but Chatholic dogma still provides for the sale
>>of Indulenges for sin
>
>
> Far from correct. Catholiic dogma in fact has a specific name
> for the sin of selling indulgences or objects which have been blessed
> -- it's called simony. Since at least the 40s, AFAIK.
>

Since the 1st Century. [Reference: Acts 8:18-24]

765. Re: K!MAN Has a Case ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 12:11:49 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1d8f7989a984b3949896c8@news-server.socal.rr.com>
Source record: 70465

In article <1126268474.457608.134880@g47g2000cwa.googlegroups.com>,
Sherins@bellsouth.net says...
> He's crossed the line numerous times: doing foreign policy, defaming
> Riley Hollingsworth, going commercial. But he has a case.
> ....

Bob, do you know where to find the details of the charges being made
against Baxter in this case?

My memory isn't nearly as good as I wish it was, but if I remember
correctly from the ARRL Audio News and Newsline bulletins on the
subject, he's not being charged for the scheduling and duration of his
bulletins, but on the content of the bulletins and the interference
they're causing with ongoing communications. There were also some
problems with so-called "Felony Complaint Affidavits" that he was
issuing to anyone that disagreed with him or didn't get out of his way
when he wanted to start transmitting his bulletins.

If I'm wrong on this, someone please let me know.

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

766. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 12:42:08 UTC
From: pezSV7BAXdag <pez@otenet.gr>
Message-ID: <dgmbnl$65m$1@usenet.otenet.gr>
Source record: 70466

```
| "Roy Lewallen" <w7el@eznec.com>
| wrote in message news:11irkp8rmnk0ta0@corp.supernews.com...
| [...]
| The Z of an
| infinite length antenna is indicated by locating the centers of the
| circles and noting that the center converges.
| [...]
| Roy Lewallen, W7EL

If we discuss here
the impedance referenced to the input (base) current
- and not to the maximum one - then
IMHO:

The quoted text above does not prove convergence.

The convergence must be independent
of the way the length goes to infinity.

The centers of whatever circles
may converge to a finite complex number
but their radii have to simultaneously converge to zero,
to have convergence.

But the limit for Z exists
if and only if
both the limits for R and X exist.
Therefore if the limit for R is dependent
on the way the length goes to infinity
then its limit does not exist.

A guess for either a non-existent limit for R
or an infinite one comes out from:
http://antennas.ee.duth.gr/ftp/visualantennas/thedipole/films/fu010100.zip
[850 KB]
If either of the above is true for R
then the corresponding is true for Z:

The limit for Z does not exist
or is (in general) the complex infinity.

But always and only for the
the impedance referenced to the input (base) current.

Sincerely,

pezSV7BAXdag
```

767. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 12:43:15 UTC
From: "Edward A. Feustel" <efeustel@direcway.com>
Message-ID: <auadnbLWzf3yL7PeRVn-uQ@giganews.com>
Source record: 70467

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:dgl50orgj1@mailhub227.itcs.purdue.edu...
>A wooden utility pole with a length of 40 feet above ground would do the
>job for me. It's just that I am not sure how the neighbors would react. A
>search of the web did show that there are fiber glass flag poles available
>that have sufficient height, but I don't know if they can support the
>weight of 100 feet of 3/4 in copper pipe and a 10-15 lb remotely tuned
>capacitor inside a weather-proof box.
>
> "Edward A. Feustel" <efeustel@direcway.com> wrote in message
> news:N9idnUMgF7L5LbfeRVn-1A@giganews.com...
>>
>> "John N9JG" <john@gotwals.xremovey.com> wrote in message
>> news:dgc7u7$9h8$1@mailhub227.itcs.purdue.edu...
>>>I am in the planning stage for a 160 meters compact loop antenna. A loop
>>>antenna may not have metal nearby, so I am planning to use a wooden pole
>>>to support the top of the loop. In the ARRL Antenna handbook, it states
>>>that "W5QJR made a pole of 2 x 4-inch lumber with 1 x 4-inch boards on
>>>either side to form an I section. He held the boards together with
>>>1/4-inch bolts, 2 feet apart and tied rope guys to the top. This made an
>>>excellent mast up to 50 feet high."
>>>
>>> Does anyone have any comments on the feasibility of an unguyed pole
>>> using this same type of construction? Naturally, a portion of the pole
>>> would have to be underground, and perhaps set in concrete. What about a
>>> 50 feet pole, with 10 feet underground ,which would give you a 40 foot
>>> mast?
>>>
>>> An alternative would be to have a contractor install a 40 feet utility
>>> pole, but I assume the wooden pole described above would be less of an
>>> eyesore (to the neighbors) than a utility pole.
>>>
>>> Any comments and advice will be appreciated.
>>> John, N9JG
>>>
>> If you really want to have the "mast" unsupported, consider a 50-60'
>> telephone pole
>> properly installed (for your type of soil) with one end buried deeply.
>> Perhaps you could
>> use a fiberglass extension from its top to support the antenna.
>>
>> It would be worth your while to have a mechanical engineer calculate your
>> design's survival
>> characteristics in high wind and compare it with 100 year records for

>> high wind speed. Also you
>> might consider the prospect of icing if you live in a northern climb -- I
>> assume that the mast
>> is at a corner of the loop.
>> Regards,
>> Ed, N5EI
>>
>
>
John,
Would you be able to provide additional support from the bottom of the loop
to ground?
That might relieve the situation. Could you have the feed at the bottom
rather than at the top and
could the box be supported?

If you could support from the bottom and use a heavy walled copper pipe
which would provide
substantial rigidity, the fiberglass might work.

I suspect that the neighbors are not going to be enthusiastic about the
loop.
Regards,
Ed, N5EI

768. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 13:12:50 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-0495DC.07573719092005@newsclstr02.news.prodigy.com>
Source record: 70469

In article <0utqi1toov2uefq3esvfma1gp53fhs12jc@4ax.com>,
nospam@nouce.bellatlantic.net wrote:

>
> I have one of those TT1208s and it's been a good tool for 6m. I have
> some impressive contacts off it and a 3 element beam. Enjoy it.
>
> Allison

Allison,

I have heard good things about the Ten Tec Transverter and figured it
was time to give it a try. I am a RTTY Junkie and noticed a six meter
RTTY spot yesterday. The 1208 should be here on Tuesday.

Dick AA5VU

769. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 14:02:40 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127138720_12439@spool6-east.superfeed.net>
Source record: 70470
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

kashe@sonic.net wrote:
> Cecil Moore <mycall@arrl.net> wrote:
>
>>Richard Clark wrote:
>>>Christian charity is not fulfilled by a shrug of the HOA committee,
>>>and members who enjoy the veil of these rules won't find it any easier
>>>getting through the eye of the needle.
>>
>>The small "eye of the needle" gate at the walls of a city
>>was sized for human beings. It was camels that couldn't
>>get through it. Camels had to enter through the main gate.
>
> But the reference was to it being as difficult for a rich man
> (as in dweller of the gated community type) as for the camel ....

Nowhere in The Bible does it say anything about a man finding
it difficult to go through the eye of the needle. The "eye of
the needle" gate was designed to allow men through, even rich
ones, and keep camels out. The difficult thing for men was to
enter the Kingdom of God, not get through the "eye of the
needle" gate.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

770. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 14:07:56 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dgmgnq$h3s$1@mailhub227.itcs.purdue.edu>
Source record: 70471

Thanks, Ed, for your comments. Yes, If I have a supporting pole in the lawn, there is no reason why I couldn't also have a support directly below the loop. The loop would be in the shape of an octagon, it would be fed through either a 1/5 size coupling loop or a gamma match at the center of the bottom side, and the series resonating tuning capacitor would be inserted at the center of the top side.

The 3/4 inch copper pipe would be the same type that is used inside houses and is quite rigid. I can not seem to find, by Goggling, the weight of copper pipe. By going to the local Lowe's store and hefting a 10 feet length of pipe, I estimate the weight of 10 feet of pipe as being somewhere in the range of 1-3 lb.

"Edward A. Feustel" <efeustel@direcway.com> wrote in message
news:auadnbLWzf3yL7PeRVn-uQ@giganews.com...
>
> "John N9JG" <john@gotwals.xremovey.com> wrote in message
> news:dgl50orgj1@mailhub227.itcs.purdue.edu...
>>A wooden utility pole with a length of 40 feet above ground would do the
>>job for me. It's just that I am not sure how the neighbors would react. A
>>search of the web did show that there are fiber glass flag poles available
>>that have sufficient height, but I don't know if they can support the
>>weight of 100 feet of 3/4 in copper pipe and a 10-15 lb remotely tuned
>>capacitor inside a weather-proof box.
>>
> John,
> Would you be able to provide additional support from the bottom of the
> loop to ground?
> That might relieve the situation. Could you have the feed at the bottom
> rather than at the top and
> could the box be supported?
>
> If you could support from the bottom and use a heavy walled copper pipe
> which would provide
> substantial rigidity, the fiberglass might work.
>
> I suspect that the neighbors are not going to be enthusiastic about the
> loop.
> Regards,
> Ed, N5EI
>

771. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 14:27:25 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127140206_12465@spool6-east.superfeed.net>
Source record: 70472

pezSV7BAXdag wrote:
> The limit for Z does not exist
> or is (in general) the complex infinity.

As the length of a dipole is increased, for the same
power input, more energy is radiated during the first
transcient cycle and less is available for reflection
from the ends of the dipole. Reflected energy is what
is causing the feedpoint impedance to change. As the
length of the dipole is incrementally increased, the
magnitude of the reflected energy is incrementally
decreased. I believe Balanis alludes to this characteristic
of standing-wave antennas.

The feedpoint impedance is Zfp = (Vfor+Vref)/(Ifor+Iref)
using phasor addition.

The limit of that equation as Vref and Iref go to zero
is Vfor/Ifor. That's what happens for an infinitely
long dipole. That's also what happens during the transient
phase of a finite dipole. Thus, Vfor/Ifor can be thought
of as the characteristic impedance of the dipole. Seems
to me, Vfor/Ifor could actually be measured during the
transient phase of a long finite dipole. Will a TDR
report the ratio of V/I for an RF pulse?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

772. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 14:49:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127141538_12499@spool6-east.superfeed.net>
Source record: 70473

Cecil Moore wrote:

> Roy Lewallen wrote:
>> The theoretical values converge at 214 - j189 ohms, and the measured
>> values at 218 - j174 ohms.
>
> Free space? As a data point, I pushed EZNEC to the limit on 40m
> with a 9000 ft. dipole. Resonant feedpoint resistance at
> 7.152 is 390 ohms. Anti-resonant feedpoint resistance at 7.092
> is 1980 ohms. It appears that EZNEC would converge to something
> in between those two values for an infinite dipole in free space.

Forgot to add, EZNEC would also converge to approximately
the same reactance value as above.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

773. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 16:29:25 UTC
From: richardharrison@webtv.net
Message-ID: <19825-432EE765-205@storefull-3255.bay.webtv.net>
Source record: 70376

Cecil, W5DXP wrote:
"Note that those are not the feedpoint impedances.".

Well, the imprdance I qupted was the radiation resistance, which is the voltage to current ratio of an antenna at the maximum current point in the antenna. I was just too lazy to post the complete Table given by Bailey.

Only when the order of resonance in a center-fed dipole is odd, 1st, 3rd, 5th, etc, is the feedpoint resistance the same as the radiation resistance. In odd-ordered resonances, the antenna feedpoint resistance is te same as the radiation resistance. In odd-orfered resonances, the antenna feedpoint is at s current loop.

In even-ordered resonances, the value of the feedpoint resistance is equal to the feedpoint impedance squared, divided by the radiation resistance value. Bailey has worked it all out for us.

Best regards, Richard Harrison, KB5WZI

774. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 16:33:06 UTC
From: Tom Coates <tecoatesHatesSpam@comcast.net>
Message-ID: <8KSdnWgdUoDbdbPeRVn-og@comcast.com>
Source record: 70475

My Lowe's store sells two kinds of copper pipe. The less costly one is harder, lighter and thinner. I began my antenna experients with the huskier stuff and after it bent, replaced it with the thin material, which is holding up OK so far.

The thinner material seems to have about the same weight per foot as aluminum. I'm using copper instead of aluminum because it is easier to make good electrical connections between the pieces.

Tom

"John N9JG" <john@gotwals.xremovey.com> wrote in message news:dgmgnq$h3s$1@mailhub227.itcs.purdue.edu...
> Thanks, Ed, for your comments. Yes, If I have a supporting pole in the lawn,
> there is no reason why I couldn't also have a support directly below the
> loop. The loop would be in the shape of an octagon, it would be fed through
> either a 1/5 size coupling loop or a gamma match at the center of the bottom
> side, and the series resonating tuning capacitor would be inserted at the
> center of the top side.
>
> The 3/4 inch copper pipe would be the same type that is used inside houses
> and is quite rigid. I can not seem to find, by Goggling, the weight of
> copper pipe. By going to the local Lowe's store and hefting a 10 feet length
> of pipe, I estimate the weight of 10 feet of pipe as being somewhere in the
> range of 1-3 lb.
>
> "Edward A. Feustel" <efeustel@direcway.com> wrote in message
> news:auadnbLWzf3yL7PeRVn-uQ@giganews.com...
> >
> > "John N9JG" <john@gotwals.xremovey.com> wrote in message
> > news:dgl50orgj1@mailhub227.itcs.purdue.edu...
> >>A wooden utility pole with a length of 40 feet above ground would do the
> >>job for me. It's just that I am not sure how the neighbors would react. A
> >>search of the web did show that there are fiber glass flag poles available
> >>that have sufficient height, but I don't know if they can support the
> >>weight of 100 feet of 3/4 in copper pipe and a 10-15 lb remotely tuned
> >>capacitor inside a weather-proof box.
> >>

> > John,
> > Would you be able to provide additional support from the bottom of the
> > loop to ground?
> > That might relieve the situation. Could you have the feed at the bottom
> > rather than at the top and
> > could the box be supported?
> >
> > If you could support from the bottom and use a heavy walled copper pipe
> > which would provide
> > substantial rigidity, the fiberglass might work.
> >
> > I suspect that the neighbors are not going to be enthusiastic about the
> > loop.
> > Regards,
> > Ed, N5EI
> >
>
>

775. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 17:34:35 UTC
From: pezSV7BAXdag <pez@otenet.gr>
Message-ID: <dgmsrh$h72$1@usenet.otenet.gr>
Source record: 70377

```
| ----------------------------------------------------------------
| Subject...: Re: 73 Ohms, How do you get it?
| Sent......: Monday, September 19, 2005 5:27 PM
| Newsgroups: rec.radio.amateur.antenna
| From......: "Cecil Moore" <mycall@arrl.net>
| ----------------------------------------------------------------
| [...]
| As the length of a dipole is increased, for the same
| power input, more energy is radiated during the first
| transcient cycle and less is available for reflection
| from the ends of the dipole. Reflected energy is what
| is causing the feedpoint impedance to change. As the
| length of the dipole is incrementally increased, the
| magnitude of the reflected energy is incrementally
| decreased. I believe Balanis alludes to this characteristic
| of standing-wave antennas.
|
| The feedpoint impedance is Zfp = (Vfor+Vref)/(Ifor+Iref)
| using phasor addition.
|
| The limit of that equation as Vref and Iref go to zero
| is Vfor/Ifor. That's what happens for an infinitely
| long dipole. That's also what happens during the transient
| phase of a finite dipole. Thus, Vfor/Ifor can be thought
| of as the characteristic impedance of the dipole. Seems
| to me, Vfor/Ifor could actually be measured during the
| transient phase of a long finite dipole. Will a TDR
| report the ratio of V/I for an RF pulse?
| --
| 73, Cecil http://www.qsl.net/w5dxp

| ----------------------------------------------------------------

Do you mean that
since the length is infinite
there is no reflected wave?
But then here it is,
once again,
one of the most controversial issues...

Well,
I think we are in the front of a case in which
the limit depends on the way we approach it.
Every logical way to approach a limit is permissible.
And these ways are infinite in number of course.
```

But the convergence is too demanding:
"She" wants all these limits to be equal.
If just two of them are unequal
the convergence simply does not exist.
Mathematically this is not a rare case,
they say.

Sincerely,

pezSV7BAXdag

776. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 18:14:01 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dgmv57$p1o$1@mailhub227.itcs.purdue.edu>
Source record: 70379

The Lowe's store here was stocking Type L Hard 3/4" copper pipe 10' long for $10. However, they only had one item in stock. I am guessing the demand for construction material due to the recent hurricane will cause shortages and higher prices.

"Tom Coates" <tecoatesHatesSpam@comcast.net> wrote in message news:8KSdnWgdUoDbdbPeRVn-og@comcast.com...
> My Lowe's store sells two kinds of copper pipe. The less costly one is
> harder, lighter and thinner. I began my antenna experients with the
> huskier
> stuff and after it bent, replaced it with the thin material, which is
> holding up OK so far.
>
> The thinner material seems to have about the same weight per foot as
> aluminum. I'm using copper instead of aluminum because it is easier to
> make
> good electrical connections between the pieces.
>
> Tom
>

777. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 18:19:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgmvf2$a6o$2@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70380

"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in
message news:LBpcZhCkdRLDFweH@g3ohx.demon.co.uk...
> In message <dgh8uv$c0v$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>, Reg
> Edwards <g4fgq.regp@ZZZbtinternet.com> writes
> >> What is the impedance at the centre of an infinitely long dipole
> >(in
> >> free space)?
> >
> >==============================
> >Its not very different from -
> >
> >Zin = 120 * Ln(Wavelength / d) ohms.
> >
> >where d = conductor diameter, both measured in metres.
> >
> >Thus, at wavelength = 80 metres with 14 gauge copper wire, input
> >impedance = 1300 ohms approx.
> >
> >If you don't believe me, just measure it.
> >----
> >Reg.
> >
> >
>
> Are you sure it's as high as that, Reg? I once did a Smith Chart
plot of
> the impedance at the centre of a dipole, the valued being taken from
a
> table 'compiled by Wu' (LK Wu?). These only catered for a lengths up
to
> a few wavelengths. As the plot progressed round and round the Smith
> Chart, it seemed to be heading for something around 350 to 400 ohms.
>
> I've just done a search on 'Wu+dipole+impedance', and one of the
results
> is
> http://www.fars.k6ya.org/docs/antenna-impedance-models.pdf
> I'll have a read of it today.
>
> Cheers,
> Ian.
> --
>

778. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 18:19:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgmvf1$a6o$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70381

"Ian Jackson" wrote -
> Are you sure it's as high as that, Reg? I once did a Smith Chart
plot of
> the impedance at the centre of a dipole, the valued being taken from
a
> table 'compiled by Wu' (LK Wu?). These only catered for a lengths up
to
> a few wavelengths. As the plot progressed round and round the Smith
> Chart, it seemed to be heading for something around 350 to 400 ohms.
>
> I've just done a search on 'Wu+dipole+impedance', and one of the
results
> is
> http://www.fars.k6ya.org/docs/antenna-impedance-models.pdf
> I'll have a read of it today.
==========

The characteristic impedance of an infinitely long wire is Zo.

If we cut the line and measure between the two ends we obtain an input impedance of twice Zo. Which is the answer to our problem.

Zo is a function of wavelength, conductor diameter and conductor resistance R where R includes the uniformly distributed radiation resistance. On a high Zo line the radiation resistance is small compared with Zo and the only effect of the radiation resistance is to give Zo a small negative angle. Which when estimating Zo can be ignored. (It is conductor resistance which at HF gives Zo of ALL lines a very small negative angle).

In the problem posed, the current is also uniformly distributed along the low-loss line and radiation resistance is not the value we are familiar with and what we might do with it.

And so we get approximately -

Rin = 120 * (Ln(Wavelength / 2 / d) - 1)

At a wavelength of 2 metres and a conductor diameter of 10mm the input resistance = 433 ohms.

I cannot guarantee the above formula to be correct. But is it low enough for you? ;o)

Mr Wu calculates radiation resistance which is not the same as input impedance unless correctly referenced. It is usual in technical papers to calculate Radres at one end of the antenna. Or it may be the

distributed value. I havn't the time to find and study the full text.
From past experience, with me, it usually ends up as a wild goose
chase.

Reg.

779. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 18:45:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127155662_12661@spool6-east.superfeed.net>
Source record: 70382

pezSV7BAXdag wrote:
> Do you mean that since the length is infinite
> there is no reflected wave? But then here it is, once again,
> one of the most controversial issues...

Yep, it's my digital logic in action. :-) If there's no end,
then there cannot be reflections from the ends. And please
note that I am not saying that the characteristic impedance
of a dipole is constant all up and down the line. I'm only
concerned about the apparent characteristic impedance at
the feedpoint, i.e. Vfor/Ifor.

Consider an open circuit transmission line. At 1/4WL, it
exhibits a very low impedance. At 1/2WL it exhibits a very
high impedance. As the transmission line length is increased
to infinity, because of losses, the "stub" impedance will spiral
into the Z0 characteristic impedance point. A similar concept
should apply to a dipole.
--
73, Cecil http://www.qsl.net/w5dxp

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780. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 18:55:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127156305_12671@spool6-east.superfeed.net>
Source record: 70383

Reg Edwards wrote:
> In the problem posed, the current is also uniformly distributed along
> the low-loss line and radiation resistance is not the value we are
> familiar with and what we might do with it.

Reg, in the real world, an antenna has radiation losses so
the current decays along its length. Is there any formula
that includes an attenuation factor for a traveling wave
antenna? It would be akin to the attenuation factor for
a transmission line but presumably higher.

I have estimated that, for a 1/2WL dipole, the reflected
voltage and current have dropped by approximately 10% below
the forward voltage and current during the round trip to the
ends of the antenna and back.
--
73, Cecil http://www.qsl.net/w5dxp

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781. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 19:06:50 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dgn2id$387$1@news.service.uci.edu>
Source record: 70384

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> The theoretical values converge at 214 - j189 ohms, and the measured
>> values at 218 - j174 ohms.
>
>
> Free space? As a data point, I pushed EZNEC to the limit on 40m
> with a 9000 ft. dipole. Resonant feedpoint resistance at
> 7.152 is 390 ohms. Anti-resonant feedpoint resistance at 7.092
> is 1980 ohms. It appears that EZNEC would converge to something
> in between those two values for an infinite dipole in free space.
> I ran into the segment limit at 66 wavelengths.

One point: Isn't the input impedance of a dipole normally specified at
a wavelength equal to twice the electrical length of the antenna? As
far as I know, dipoles have infinite DC resistance at zero Hertz. ;-)

ac6xg

782. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 20:23:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgn6oa$i4t$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70386

Cec, what is your best estimate of the input impedance of an
infinitely long dipole. Just a number please.

Remember Lord Kelvin!

Reg.

783. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 20:44:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iu8prqjemt4f@corp.supernews.com>
Source record: 70387

Reg Edwards wrote:
> ==========
>
> The characteristic impedance of an infinitely long wire is Zo.
>
> If we cut the line and measure between the two ends we obtain an input
> impedance of twice Zo. Which is the answer to our problem.
>
> Zo is a function of wavelength, conductor diameter and conductor
> resistance R where R includes the uniformly distributed radiation
> resistance. On a high Zo line the radiation resistance is small
> compared with Zo and the only effect of the radiation resistance is to
> give Zo a small negative angle. Which when estimating Zo can be
> ignored. (It is conductor resistance which at HF gives Zo of ALL
> lines a very small negative angle).

This assumption is correct only when the transmission line conductors
are closely spaced. That isn't at all true for the halves of a dipole.
>
> In the problem posed, the current is also uniformly distributed along
> the low-loss line and radiation resistance is not the value we are
> familiar with and what we might do with it.
>
> And so we get approximately -
>
> Rin = 120 * (Ln(Wavelength / 2 / d) - 1)
>
> At a wavelength of 2 metres and a conductor diameter of 10mm the input
> resistance = 433 ohms.

> I cannot guarantee the above formula to be correct. But is it low
> enough for you? ;o)

I can't see how it can possibly be correct. Unless I'm mistaken, you've
completely ignored the effect of radiation in calculating the radiation
resistance. It sure makes the calculation a lot simpler, though!

> Mr Wu calculates radiation resistance which is not the same as input
> impedance unless correctly referenced. It is usual in technical papers
> to calculate Radres at one end of the antenna. Or it may be the
> distributed value. I havn't the time to find and study the full text.
> From past experience, with me, it usually ends up as a wild goose
> chase.

It depends on the author. Kraus uses feedpoint resistance and radiation
resistance interchangeably when loss is assumed to be zero. It's

traditional in AM broadcasting to give radiation resistance referred to a current maximum. The conclusion is that radiation resistance can be referred to any point along an antenna you wish, which means that it's essential to state what point you're using as a reference.

Roy Lewallen, W7EL

784. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 20:51:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iu96drk8qh8e5@corp.supernews.com>
Source record: 70388

Jim Kelley wrote:
>
> One point: Isn't the input impedance of a dipole normally specified at
> a wavelength equal to twice the electrical length of the antenna? As
> far as I know, dipoles have infinite DC resistance at zero Hertz. ;-)

No, you can calculate or specify the input impedance of a dipole at any frequency. As frequency approaches zero, a dipole's input resistance approaches zero and its reactance approaches minus inifnity. That is, it looks like a capacitor, and the capacitive reactance gets larger as the frequency gets lower. Which is just what you'd expect from a couple of electrically very short wires having no DC connection.

Roy Lewallen, W7EL

785. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 21:28:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgnahuojm1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70389

```
> Reg Edwards wrote:
> > In the problem posed, the current is also uniformly distributed
along
> > the low-loss line and radiation resistance is not the value we are
> > familiar with and what we might do with it.
>
> Reg, in the real world, an antenna has radiation losses so
> the current decays along its length.
==============================

Yes, I know. Just insert "approximately" before "uniformly"

On a long terminated non-resonant line I guess the current falls off
crudely exponentially at a rate of about 1 dB per wavelength.

The situation is similar to that very long, low, terminated antenna
wire whose name I can't remember. And whose input resistance at LF is
about 550 ohms. Putting two of them back-to-back gives an input
resistance of twice that = 1100 ohms. Which indicates the answer to
our infinitely long dipole problem.
----
Reg.
```

786. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 21:41:00 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dgnbna$7bm$1@news.service.uci.edu>
Source record: 70459

Roy Lewallen wrote:

> Jim Kelley wrote:
>
>>
>> One point: Isn't the input impedance of a dipole normally specified
>> at a wavelength equal to twice the electrical length of the antenna?
>> As far as I know, dipoles have infinite DC resistance at zero Hertz. ;-)
>
> As frequency approaches zero, a dipole's input resistance
> approaches zero and its reactance approaches minus inifnity. That is, it
> looks like a capacitor, and the capacitive reactance gets larger as the
> frequency gets lower. Which is just what you'd expect from a couple of
> electrically very short wires having no DC connection.
>
> Roy Lewallen, W7EL

I'll give you a Mulligan on that one if you like, Roy. ;-)

73, ac6xg

787. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 22:08:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgncs8$h0u$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70461

Roy, if you don't like my simple approximate formula, can YOU produce
a better one without plagiarising?

Reg.

788. Re: Using a Fan Dipole for Six Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 22:32:53 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <p0HXe.819$vw6.815@newsread1.news.atl.earthlink.net>
Source record: 70462

Allison,
>
> I have heard good things about the Ten Tec Transverter and figured it
> was time to give it a try. I am a RTTY Junkie and noticed a six meter
> RTTY spot yesterday. The 1208 should be here on Tuesday.
>
> Dick AA5VU

The TT I had had a very hot receiver. I had the marage amplifier with the gasfet preamp and when I turned on the preamp I could not tell any differance in the weak signals. The S-meter came up but the noise came up with the signal. I could get the same effect in the audio just by turning up the volume on the receiver.
On transmitt, 10 watts or so is still 10 watts. Just a little too low for me on 6 meters. With many of the newer rigs having 100 watts on 6 I think that is the power level to shoot for.

For what is it , the transverter does a very fine job.

789. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 22:54:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11iuge66uplqb55@corp.supernews.com>
Source record: 70468

Reg Edwards wrote:
> Roy, if you don't like my simple approximate formula, can YOU produce
> a better one without plagiarising?
> ----
> Reg.

Sure. 42. It might not be better, but it's just as good. Formulas can be made very simple if you simply ignore any inconvenient facts. Like radiation from an antenna.

Roy Lewallen, W7EL

790. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 23:22:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgnh8bfsj1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70474

"Roy Lewallen" wrote
> Reg Edwards wrote:
> > Roy, if you don't like my simple approximate formula, can YOU
produce
> > a better one without plagiarising?
> > ----
> > Reg.
=====================================
> Sure. 42. It might not be better, but it's just as good. Formulas
can be
> made very simple if you simply ignore any inconvenient facts. Like
> radiation from an antenna.
>
> Roy Lewallen, W7EL
=====================================
Don't be silly. I didn't ignore radiation resistance. I said it was
small enough in comparison with Zo, as an approximation, to forget
about.

And remember Lord Kelvin.

Reg.

791. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 23:43:59 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dgnj1takk1@news.service.uci.edu>
Source record: 70385

Reg Edwards wrote:

> And remember Lord Kelvin.
> ----
> Reg.
>

"To measure is to know."

also

"X-rays will prove to be a hoax."

http://zapatopi.net/kelvin/quotes/

ac6xg

792. Re: 802.11 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-19 23:44:47 UTC
From: Dario <dariolq@yahoo.com>
Message-ID: <1127173487.499771.305320@z14g2000cwz.googlegroups.com>
Source record: 70378

titus@ieee.org wrote:
> Hello,
>
> Can someone tell me what type of electical length does 802.11 antennas
> (lambda/2, lambda/4, etc) have? The 2.4GHz has 12.5cm wavelength but
> none of the rubber duck antennas that come with the wirless router have
> a length of 12.5cm, 6.25cm, or 3.125cm, etc.
>
> I recently purchased a 9dBi antenna to replace the 2.2dBi stock rubber
> ducks. It also does not appear to measure in any n*lambda/4 lengths.
> What puzzles me is that an outdoor $200 antenna of 3 foot long and a
> $60 antenna of slightly less than 1 ft both have about the same gain.
>
> And before the purchase I have tried to make a few higher gain antennas
> out of a wire coat hanger in n*lambda/4 lengths but they don't have
> much of an impact in signal strength. Why?
>
> I did an antenna course years ago and remember the gain of a monopole
> is related to its radiation resistance, which is proportional to
> n*lambda/4 from what I can recall.
>
> Thanks!

t
You are correct, the radiation resistance partly depends on, or partly governs, the dimensions (depending on how you look at it). The size (length) of the antenna depends not only on the diameter of the wire, but on the surrounding material too. An antenna can be made shorter than what you would expect by simply increasing the permittivity (or dielectric constant) of the material around it. My guess would be that the antenna is coated with a high permittivity material which (in the material) makes the wavelength of any frequency appear shorter than it actually is. So the antenna only actually has to be as long as the quarter wavelength in the dielectric.

Another possibility would be to introduce a reactance (inductance or capacitance [I can't remember which at the moment]) to shorten the electrical length of the antnna, thereby, once again, only requiring a shorter than expected antenna length.

As far as your tests go, I can't really comment on why you don't see a change. But... If you'll recall from your antenna course, a lambda/2 dipole has a figure 8 pattern when looked at from the side (E plane). If you increase the length of the dipole (or monopole with a ground) you are effectively creating an antenna array and you get interference

from each element (each section of lambda/2). Your figure 8 with a low gain broad main beam begins to look like a flower with thin petals. Each petal (lobe) has higher gain but a narrower beamwidth. You may be getting multipath (a type of interference) due to the extra lobes or you simply may be looking from an undesireable angle. Perhaps you could try moving your non homebrew antenna station in the E plane of your antenna and see if the signal strength changes.

I hope this sheds some light!

Dario

793. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 01:10:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127178806_13147@spool6-east.superfeed.net>
Source record: 70390

Jim Kelley wrote:
> One point: Isn't the input impedance of a dipole normally specified at
> a wavelength equal to twice the electrical length of the antenna? As
> far as I know, dipoles have infinite DC resistance at zero Hertz. ;-)

That would be true for an electrical dipole but we are obviously
talking about physical poles here, i.e. two infinite conductive
fishing poles. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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794. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 01:19:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127179301_13155@spool6-east.superfeed.net>
Source record: 70391

Reg Edwards wrote:
> Cec, what is your best estimate of the input impedance of an
> infinitely long dipole. Just a number please.

Guesstimate: 900-j175 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

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795. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 02:00:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127181791_13183@spool6-east.superfeed.net>
Source record: 70392

Reg Edwards wrote:
> On a long terminated non-resonant line I guess the current falls off
> crudely exponentially at a rate of about 1 dB per wavelength.

Seems to me if we assume 1 dB per wavelength for both current
and voltage and knowing the feedpoint impedance of a one WL
dipole, we could calculate the characteristic impedance of
the antenna at the feedpoint.

Seems to me it would be essentially the same calculation as
for a 1/2WL open-circuit stub where the transmission line has
losses of 1 dB per wavelength and we measure a stub impedance
of 5000 ohms. We could calculate the Z0 of the stub.

Couldn't we use a TDR to measure the loss in an open-ended
1/2WL piece of wire?
--
73, Cecil http://www.qsl.net/w5dxp

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796. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 02:14:07 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <jrrui11sa5c1cti78snsbfidq0nftkovo8@4ax.com>
Source record: 70393
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 17 Sep 2005 11:41:25 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Would someone put something in "Uncle Ted's" mouth, my zipper is stuck...
>

Sorry, but I'm afraid I may be a few decades older than the
ten-year-old boys you are fantasizing about...

797. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 02:20:01 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <34sui1h78dnnf7upi6oasunk6c3quvikup@4ax.com>
Source record: 70395
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 17 Sep 2005 15:10:11 -0400, Ham op <hamop@comcast.net> wrote:

>> It's bad enough that people feel a need to believe in any deities at
>> all, but when you have to listen to a bunch of old men in robes half a
>> world away tell you how to live your life, you're pretty screwed up.
>
>Ted, I'll pray for you. There's nothing you can do about it!

Whatever.

I have got to be one of the most "prayed-for" people there is. The
people that say they're "praying for me" remind me of the villagers in
old horror flicks that would hang up garlic and crucifixes to ward off
werewolves, vampires, fire-breathing dragons, Amway dealers, etc.

798. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 02:22:10 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <pfsui1hs60tb8gu55d602rvvfs9s4urn72@4ax.com>
Source record: 70394
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 19 Sep 2005 05:41:38 GMT, kashe@sonic.net wrote:

>>It's bad enough that people feel a need to believe in any deities at
>>all, but when you have to listen to a bunch of old men in robes half a
>>world away tell you how to live your life, you're pretty screwed up.
>
> Is this a slam against our Muslim brethren? A comment on the
>position of Saudi Arabian women?

Pope worshipers and Mohamahdists are all the same to me...

799. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 02:40:08 UTC
From: Charlie <charlie@play.com>
Message-ID: <11iutq9d2274acd@news.supernews.com>
Source record: 70396
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Same here Ted....

Religion is the opiate of the masses.

I prefer a free and satisfied mind...

--

Charlie

"Uncle Ted" <malican40@verizon.com> wrote in message
news:pfsui1hs60tb8gu55d602rvvfs9s4urn72@4ax.com...
> On Mon, 19 Sep 2005 05:41:38 GMT, kashe@sonic.net wrote:
>
>>>It's bad enough that people feel a need to believe in any deities at
>>>all, but when you have to listen to a bunch of old men in robes half a
>>>world away tell you how to live your life, you're pretty screwed up.
>>
>> Is this a slam against our Muslim brethren? A comment on the
>>position of Saudi Arabian women?
>
> Pope worshipers and Mohamahdists are all the same to me...

800. Re: 802.11 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 04:00:28 UTC
From: titus@ieee.org
Message-ID: <1127188828.597491.215000@g49g2000cwa.googlegroups.com>
Source record: 70397

Hi Dario,

Thanks for the information on the permittivity factor allowing a shorter antenna due to a shorter wavelength, and for pointing out the array part for a longer monopole. I actually did quite a bit of analysis on arrays in multiple dimensions but never thought a longer antenna element would be equivalent to stacking up monopoles. So thanks for pointing that out.

But part of the question remains, I guess then is how would be possible to increase gain of a monopole without going over lambda/2, while maintaining the dounut shape radiation pattern of a monopole.

Also, out of curiosity, why would any one wants to pay $200 for a 3 ft long antenna vs $60 for a less than 1 ft long antenna of the same gain, only because the $200 is an outdoor one?

801. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 04:02:14 UTC
From: kashe@sonic.net
Message-ID: <md2vi1llg7c8bfqvcu9cce93s3rrvhsah3@4ax.com>
Source record: 70398
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 19 Sep 2005 09:02:40 -0500, Cecil Moore <mycall@arrl.net>
wrote:

>kashe@sonic.net wrote:
>> Cecil Moore <mycall@arrl.net> wrote:
>>
>>>Richard Clark wrote:
>>>>Christian charity is not fulfilled by a shrug of the HOA committee,
>>>>and members who enjoy the veil of these rules won't find it any easier
>>>>getting through the eye of the needle.
>>>
>>>The small "eye of the needle" gate at the walls of a city
>>>was sized for human beings. It was camels that couldn't
>>>get through it. Camels had to enter through the main gate.
>>
>> But the reference was to it being as difficult for a rich man
>> (as in dweller of the gated community type) as for the camel ....
>
>Nowhere in The Bible does it say anything about a man finding
>it difficult to go through the eye of the needle. The "eye of
>the needle" gate was designed to allow men through, even rich
>ones, and keep camels out. The difficult thing for men was to
>enter the Kingdom of God, not get through the "eye of the
>needle" gate.

Agreed. I think it got lost in my trailing ellipsis. :-)

man:heaven - camel:eye, more or less.

802. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 04:03:13 UTC
From: kashe@sonic.net
Message-ID: <ui2vi1hrnjcmjtug82quv5lj6hgl5kvap6@4ax.com>
Source record: 70399
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 19 Sep 2005 07:44:49 -0400, Ham op <hamop@comcast.net> wrote:

>kashe@sonic.net wrote:
>
>SNIPPED
>
>>>Discounts I don't know but Chatholic dogma still provides for the sale
>>>of Indulenges for sin
>>
>>
>> Far from correct. Catholiic dogma in fact has a specific name
>> for the sin of selling indulgences or objects which have been blessed
>> -- it's called simony. Since at least the 40s, AFAIK.
>>
>
>Since the 1st Century. [Reference: Acts 8:18-24]

OK, maybe the 0040s. :-)

803. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 05:54:15 UTC
From: pezSV7BAXdag <pez@otenet.gr>
Message-ID: <dgo86jida1@usenet.otenet.gr>
Source record: 70400

```
| ------------------------------------------------------------
| "Jim Kelley" <jwkelley@nospam.edu>
| wrote in message news:dgnj1t$akk$1@news.service.uci.edu...
|
| [...]
|
| "X-rays will prove to be a hoax."
|
| http://zapatopi.net/kelvin/quotes/
|
| ac6xg
| ------------------------------------------------------------

A
I hope you will excuse me the next example.

Let

f = Sin[x]

I choose:

x = 2*k*pi

and k goes to infinity one by one: 0, 1, 2, ...

Definitely then I found correctly f(oo) = 0.

Cecil chooses:

x = 2*k*pi + pi/2

and k goes to infinity one by one,
as before.

Definitely he founds correctly f(oo) = +1

Lord Kelvin chose:

x = 2*k*pi - pi/2

and k went to infinity one by one,
as above.

Definitely he founded correctly f(oo) = -1

All of us
we are correct in all steps,
but the value
```

f(oo)

does not exist as a single one.
In fact f(oo) takes every value between -1 and +1.

f(oo) definitely depends
on the way in which each one of us
went to infinity.

IMHO:
this is the kind of behavior of Zinp.

B
But in addition to that there is one more to say:

Zinp is a result of
the order in which we consider the limits
for the wire radius and the length to wavelength ratio.

If
a is the wire radius and
L/wl is the ratio of length to wavelength
then
I can imagine five cases:

1
First the a is going to zero,
a formula is produced for Zinp,
then the L/wl is going to infinity
and a number may or may not be the result for Zinp.

2
First the L/wl is going to infinity
a formula is produced for Zinp,
then the a is going to zero
and a number may or may not be the result for Zinp.

3
Simultaneously,
both
the L/wl is going to infinity
and
the a is going to zero,
and a number may or may not be the result for Zinp.

4
We keep a constant value for L/wl,
then a is going to zero
and a number may or may not be the result for Zinp.

5
We keep a constant value for a,
then L/wl is going to infinity
and a number may or may not be the result for Zinp.

[On the occasion I have to confess that the movie at
[http://antennas.ee.duth.gr/ftp/visualantennas/thedipole/films/fu010100.zip
[850 KB
[belongs to the last case.

For a possible conclusion
let me mention a remarkable note from a Mathematical book:

"The biggest source of erroneous conclusions
have to do with the order we consider the limits"

(and which order we tend then to forget ...)

Sincerely,

pezSV7BAXdag

804. Edmund Laport "Radio Antenna Engineering" now in paperback edition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 06:22:39 UTC
From: dplatt@radagast.org
Message-ID: <11ivalf2vitoob2@corp.supernews.com>
Source record: 70401
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

Back in May, I announced the availability of an electronic (PDF) edition of Edmund Laport's 1952 text "Radio Antenna Engineering", which I'd created by scanning a copy of the book after I confirmed that the original copyright had expired. The reaction to this has been quite satisfying - it's been downloaded over 200 times via my BitTorrent server, and at least as much more from one or another HTTP server.

A few weeks ago, I received an excellent suggestion from Ed KI4AGL. He proposed that I upload the PDF to LuLu.com, a "publish and print on demand" company, so that people who wanted a hardcopy of this book could purchase one conveniently.

I hadn't heard of LuLu, so I checked them out, and was impressed by what I saw. It turned out to be quite easy to set up an account, upload a slightly-tweaked version of the book's PDF, create a cover for it, and make it available to purchasers. Ed ordered one, and wrote me yesterday to say that it has arrived and that it looks good - the text and pictures all came out clearly. LuLu describes their product as being "bookstore-quality paperbacks" and from Ed's report it sounds like that's a fair description.

As published through LuLu, "Radio Antenna Engineering" is a 6-by-9-inch softcover, printed on 60-pound paper stock, with a glued-edge "perfect binding". It's what's usually called a "trade paperback" edition, the same size as the original hardcover edition, and has all of the text and drawings and photographs. The large foldout map of the continental United States, with diagrams of the coverage patterns of certain MF broadcast stations, has been reduced down to fit on a single 6-by-9 page.

The price for the book is set by LuLu - they charge by the page and add a flat fee for the binding. I published it using LuLu's "no royalty, no commission" service, which they've set up specifically to encourage people to keep obscure material in print. Postage is additional, depending on how you choose to have it shipped. With basic (media-mail) postal delivery in the U.S., the book comes to a bit less than $20.

You can order it from: http://www.lulu.com/content/159004

I've added this information and link to my page at http://snulbug.mtview.ca.us/books/RadioAntennaEngineering/ on which you can find the BitTorrent download files, and links to an HTTP server which has the PDFs available.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

805. News:Gothic Singles Photos!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 07:08:45 UTC
From: sexybabe660@yahoo.com
Message-ID: <1127200125.649582.50950@z14g2000cwz.googlegroups.com>
Source record: 70402

Check out our large photo gallery for gothic and their admirers. Still looking for that special someone?

http://www.aboutme.com/gothicclub/gothicmodelsuck.htm

806. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 10:42:12 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6YWdnWb9yuNterLeRVn-tA@comcast.com>
Source record: 70403
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Even with your disbelief, I'll still pray for you.

There are two common anecdotes. One in Christianity, the other in Islam.

1] Work like everything depends on you. Pray like everything depends on God!

2] Trust Allah, but tie your camel.

Here is a message from a Baptist [Christian] Pastor about 10 years ago.

"Man does his part; God does His part.
Man does the sinning; God does the saving."

May God increase your faith.
+ + +

Uncle Ted wrote:

> On Sat, 17 Sep 2005 15:10:11 -0400, Ham op <hamop@comcast.net> wrote:
>
>
>
>>>It's bad enough that people feel a need to believe in any deities at
>>>all, but when you have to listen to a bunch of old men in robes half a
>>>world away tell you how to live your life, you're pretty screwed up.
>>
>>Ted, I'll pray for you. There's nothing you can do about it!
>
>
> Whatever.
>
> I have got to be one of the most "prayed-for" people there is. The
> people that say they're "praying for me" remind me of the villagers in
> old horror flicks that would hang up garlic and crucifixes to ward off
> werewolves, vampires, fire-breathing dragons, Amway dealers, etc.

807. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 10:43:21 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <6YWdnWH9yuOpdbLeRVn-tA@comcast.com>
Source record: 70404
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

kashe@sonic.net wrote:

> On Mon, 19 Sep 2005 07:44:49 -0400, Ham op <hamop@comcast.net> wrote:
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>>kashe@sonic.net wrote:
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>>> Far from correct. Catholiic dogma in fact has a specific name
>>>for the sin of selling indulgences or objects which have been blessed
>>>-- it's called simony. Since at least the 40s, AFAIK.
>>>
>>
>>Since the 1st Century. [Reference: Acts 8:18-24]
>
>
> OK, maybe the 0040s. :-)

You are too quick!!

808. Telonic VSWr kit "Rho_tector" - anyone used one ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 10:51:09 UTC
From: David <groups@orbitcoms.com>
Message-ID: <xQRXe.589$0E5.486@news-server.bigpond.net.au>
Source record: 70405

Hi,

I have a Telonic VSWR kit (Model TRB-2) tha is supposed to be good to
2.5GHz. It has 0.5W rating stamped on it , Z1, Z2 , RF in and Detector out.

It came wikth 1:1 and 2 x 2:1 Precision terminators.

I would like to measure VSWR of antennae at 915 MHz using a RF Sig. Gen,
the VSWR kit and a scope. I have a 1GHz spc analyzer also if required.

1. Can I drive this properly with the +13dBm max. from the Sig. Gen and
get reasonable results ?

2. If so, what would be a good setup and test method.

Thanks in advance for any help.

Regards

David

809. Re: Edmund Laport "Radio Antenna Engineering" now in paperback edition

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 11:27:12 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <kmSXe.7168$nV1.3680@trnddc06>
Source record: 70406

Dave,

I downloaded the free copy of this and looked at it. It is a very fine piece of reproduction work on your part. The care you took to line everything up correctly, as well as the quality of the scans, have resulted in a reproduction that is almost as good as new. I intend to peruse it a little, and then perhaps purchase a professionally bound copy from the LuLu service you identiified.

Thanks again for your hard work and a great job!

Joe
W3JDR

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11ivalf2vitoob2@corp.supernews.com...
> Back in May, I announced the availability of an electronic (PDF)
> edition of Edmund Laport's 1952 text "Radio Antenna Engineering",
> which I'd created by scanning a copy of the book after I confirmed
> that the original copyright had expired. The reaction to this has
> been quite satisfying - it's been downloaded over 200 times via my
> BitTorrent server, and at least as much more from one or another HTTP
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> A few weeks ago, I received an excellent suggestion from Ed KI4AGL.
> He proposed that I upload the PDF to LuLu.com, a "publish and print on
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> The price for the book is set by LuLu - they charge by the page
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> encourage people to keep obscure material in print. Postage is
> additional, depending on how you choose to have it shipped. With
> basic (media-mail) postal delivery in the U.S., the book comes to a
> bit less than $20.
>
> You can order it from: http://www.lulu.com/content/159004
>
> I've added this information and link to my page at
> http://snulbug.mtview.ca.us/books/RadioAntennaEngineering/ on which
> you can find the BitTorrent download files, and links to an HTTP
> server which has the PDFs available.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

810. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 12:49:26 UTC
From: Matt <pissoff@spammers.suck.com>
Message-ID: <dgp0gm$2gv3$1@otis.netspace.net.au>
Source record: 70407
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Ham op" <hamop@comcast.net> wrote in message
news:6YWdnWb9yuNterLeRVn-tA@comcast.com...
> Even with your disbelief, I'll still pray for you.
>
> There are two common anecdotes. One in Christianity, the other in Islam.
>
> 1] Work like everything depends on you. Pray like everything depends on
God!
>
> 2] Trust Allah, but tie your camel.
>
> Here is a message from a Baptist [Christian] Pastor about 10 years ago.
>
> "Man does his part; God does His part.
> Man does the sinning; God does the saving."
>
> May God increase your faith.
> + + +

This thread has degenerated into religious shit fighting. It has absolutely
sweet fuck all to do with any of the NGs that it has been posted to- how
about we either revert to the original topic, close this thread down, or
move it to a religious discussion group where I feel that it would be far
more appropriate. Please?

Matt

811. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 13:03:38 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <GqSdnaHbf6qHlK3eRVn-qg@comcast.com>
Source record: 70408
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt wrote:

SNIPPED

> This thread has degenerated into religious shit fighting. It has absolutely
> sweet fuck all to do with any of the NGs that it has been posted to- how
> about we either revert to the original topic, close this thread down, or
> move it to a religious discussion group where I feel that it would be far
> more appropriate. Please?
>
>
> Matt
>
>

Your point is valid. Your language needs serious improvement!

812. Re: 802.11 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 14:51:55 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <25f76$433026e2$97d56a13$32237@ALLTEL.NET>
Source record: 70409

See P.T. Barnum - something about "A sucker born every minute"...

<titus@ieee.org> wrote in message
news:1127188828.597491.215000@g49g2000cwa.googlegroups.com...

> Also, out of curiosity, why would any one wants to pay $200 for a 3 ft
> long antenna vs $60 for a less than 1 ft long antenna of the same gain,
> only because the $200 is an outdoor one?
>

813. How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 15:45:03 UTC
From: David <groups@orbitcoms.com>
Message-ID: <38WXe.751$0E5.493@news-server.bigpond.net.au>
Source record: 70410

I have a 1/2 wave - end fed whip antenna that has been designed for operation on 915 MHz.

A Signal Generator is attached to a VSWR detector. The reference port is 50 Ohms. The antenna is connected to Z2 port and the detector output to an oscilloscope.

I have calibrated the output for 50 Ohms and noted the 2:1 VSWR voltage when using a 2:1 precision ref at Z2 in place of the antenna.

I have a Spectrum analyzer with short wire as a pickup to observe radiation from antenna (I image 1/2 the trouble is here ?)

When I sweep manually across say 800 MHz to 1GHz the VSWR gets worse when the radiated power increases and visa versa.

When I then plug in a commercial antenna the VSWR does the same thing EXCEPT when it is in the region it is resonant, the VSWR improves as the level rises, at all other points the VSWR goes down as radiated power increases.

Is there something silly going on here or is this what should happen.
This is the first time I have attempted to measure an antenna so would appreciate any help.
I notice the peaks at a reasonably fixed period (816,879,933,993,1.051G), can I learn something about the antenna from how apart these peaks ?

Thanks in advance,

814. Re: 802.11 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 15:48:34 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <kjn503-eec.ln1@p400bob.personal.cox.net>
Source record: 70411

Cost to manufacture/distribute is often the calculation starting point when determining final price..

Prices tend to be set at whatever the market will bear.... Also note that those with flashy paint jobs and go-fast stripes will always cost more! <grin>

Antennas designed/built long ago may have to amortise higher design costs. Then again more sales over the years should have bought the price down.

Quality? Longevity? Gain should not be the sole method for making a choice of what antenna to buy. I personally would also look at sidelobe performance (for reduction of possible interference). One also has to calculate the path requirements and signal margins to do the job properly. Allowing for cable loss is another biggy. Many big spread spectrum suppliers (eg Cisco) have a spreadsheet you can download for calculating the link budget for an LOS path.

Re increasing the gain w/out and incerase in size, generally not. If you load the elements in such a way that they are smaller to make use of phasing (eg a collinear) then losses are introduced as well as the aperture getting smaller. My opinion is that you'd have better directivity but no/little increase of gain in the intended direction. The donut would be flatter by the way.

Would you care to explain your exact requirements? Like are you trying for point to point links or just a larger hot spot coverage. They have diferent antenna requirments.

Cheers Bob W5/VK2YQA

titus@ieee.org wrote:
.
>
> Also, out of curiosity, why would any one wants to pay $200 for a 3 ft
> long antenna vs $60 for a less than 1 ft long antenna of the same gain,
> only because the $200 is an outdoor one?
>

815. Re: E H Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 16:39:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgpdvkdkt1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70412

"Fred W4JLE" wrote
> Don't hold back Reg, tell us what you really think. :>)
>
==========

A perceptive comment. As a foriegner, if I told you what I really
think I would immediately receive a load of invitations to an
unfinished tea party in Boston, which I would be unable to attend.

Reg.

816. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 17:05:46 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <Csidnda5yfD93K3enZ2dnUVZ_s-dnZ2d@web-ster.com>
Source record: 70413

David wrote:
> I have a 1/2 wave - end fed whip antenna that has been designed for
> operation on 915 MHz.
>
> A Signal Generator is attached to a VSWR detector. The reference port is
> 50 Ohms. The antenna is connected to Z2 port and the detector output to
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>
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>
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>
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> EXCEPT when it is in the region it is resonant, the VSWR improves as the
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> (816,879,933,993,1.051G), can I learn something about the antenna from
> how apart these peaks ?
>
> Thanks in advance,

If the wire is significantly less than a wavelength on the spectrum
analyzer it shouldn't cause effects that are _too_ weird, and is
probably better than hanging an unknown sorta-tuned antenna on the thing.

You mentioned the Magic Flame War Word when you mentioned VSWR. The
relationship between VSWR, amplifier performance and antenna performance
is complex. I'll get behind this here bunker and say that VSWR
measurements are useful things if you know the effects, and if you're
using components that are designed for 1:1 VSWR at some design impedance
that's what you should do. Beyond that a given amplifier may not have
it's peak power output at 1:1 VSWR, and a given antenna may not have
it's peak effectiveness at 1:1 VSWR, unless the amplifier and antenna
are specifically designed for that. Try to ignore the side threads that

this paragraph will generate -- those folks all voted for either Nader or LaRouch in the last election.

Did you pay attention to the amplifier power output when you were doing your VSWR sweep? Did you try moving the spectrum analyzer pickup around? An amplifier that's designed for a 50 ohm output and run into a different impedance may indeed generate more power, at least until the finals overheat. It may be that the amplifier you're using happens to generate more power into the off-tune load that the antenna presents - or - that the antenna radiates more efficiently in the direction of your pickup.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

817. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 17:12:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127236512_15129@spool6-east.superfeed.net>
Source record: 70414

David wrote:
> I have a 1/2 wave - end fed whip antenna that has been designed for
> operation on 915 MHz.

Last time I inquired about this antenna I was told it wasn't
an end-fed but instead was a center-fed sleeve antenna. So
which is it? (Anti)resonance on a bona fide end-fed 1/2WL
antenna is pretty hard to nail down but it doesn't much matter.
One just usually searches for a 50 ohm tap on a coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

818. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 18:15:39 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1127240139.756430.52570@z14g2000cwz.googlegroups.com>
Source record: 70415

A half-wave end-fed wire, fed against a ground plane or similar counterpoise, will show a high impedance at (and near) resonance. If the antenna is fed through some length of line from the "VSWR detector," the impedance presented to the detector will be modified by that length of line; a 1000 ohm antenna might reflect 3 ohms through the line. But why would you expect a drop in indicated VSWR at resonance? -- When you say "when the radiated power increases," are you talking about increased field strength as measured by the spectrum analyzer, with a constant output setting from the generator? How far away is the spectrum analyzer antenna, in wavelengths, from the antenna you are trying to measure?

If, as Cecil suspects, the antenna is really a center-fed half-wave, what have you done to decouple the feedline from the antenna? If the feedline comes coaxially out the end of the antenna, it may well be that the feedline is very poorly decoupled.

Cheers,
Tom

819. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 18:19:51 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <okk0j1p8jkhgld475i54m9551hbdt6r0tk@4ax.com>
Source record: 70416

On Mon, 19 Sep 2005 16:43:59 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>Reg Edwards wrote:
>
>
>> And remember Lord Kelvin.
>> ----
>> Reg.
>>
>
>"To measure is to know."
>
>also
>
>"X-rays will prove to be a hoax."
>
>http://zapatopi.net/kelvin/quotes/
>
>ac6xg

Terrific reference, Jim, I've added it to my 'favorites'.

Walt

820. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 19:04:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tmm0j15fease4dkhf8bt33df232gse39o1@4ax.com>
Source record: 70417

On Mon, 19 Sep 2005 16:43:59 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>Reg Edwards wrote:
>> And remember Lord Kelvin.
>"X-rays will prove to be a hoax."
>http://zapatopi.net/kelvin/quotes/

Hi Jim,

Certainly a trove of complexity. Keeping to the tenor of your choice:
"I have not had a moment's peace or happiness in respect to
electromagnetic theory since November 28, 1846. All this time I
have been liable to fits of ether dipsomania, kept away at
intervals only by rigorous abstention from thought on the
subject."

I sippose that California varietals were not available as an
alternative to ether. Oh how we can celebrate the modern march of
progress by viewing the problems of electromagnetic theory through the
bottom of a wine glass. Such libation allows one to simultaneously to
offer solutions and to observe that "rigorous abstention from
thought." Lord Kelvinator would be proud.

73's
Richard Clark, KB7QHC

821. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 19:16:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bln0j1hi4jicd26ufah9iltj9vafr45j5q@4ax.com>
Source record: 70418

On Mon, 19 Sep 2005 16:43:59 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>"X-rays will prove to be a hoax."
>http://zapatopi.net/kelvin/quotes/

"Radio has no future."

Hi Jim,

Almost any lesson can be drawn from the hazard of quote choices:

"The wireless telegraphy is one of the most wonderful inventions
the world has ever seen."

One has to allow that he was either a world class loon, or had the
ability to change his mind.

No doubt the latter characteristic prevails, but this is hardly the
forum for its celebration.

Thanx for the link to such a trove.

73's
Richard Clark, KB7QHC

822. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 19:20:16 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <QhZXe.14126$fb6.4432@trnddc08>
Source record: 70419

>I notice the peaks at a reasonably fixed period
>(816,879,933,993,1.051G), can I learn something about the antenna from
>how apart these peaks ?

David,

Judging from your comment above, it appears that the VSWR peaks are happening at a very periodic spacing of about 60MHz. This would imply to me that you're analyzing the antenna by looking into a feedline that is 1/4 wavelength long at 60 MHz. This would be about 49 inches times the velocity factor of the coax. Thus I'd estimate that your feedline is in the mid 30" range. Is this the case?

Joe
W3JDR

"David" <groups@orbitcoms.com> wrote in message
news:38WXe.751$0E5.493@news-server.bigpond.net.au...
> I have a 1/2 wave - end fed whip antenna that has been designed for
> operation on 915 MHz.
>
> A Signal Generator is attached to a VSWR detector. The reference port is
> 50 Ohms. The antenna is connected to Z2 port and the detector output to
> an oscilloscope.
>
> I have calibrated the output for 50 Ohms and noted the 2:1 VSWR voltage
when
> using a 2:1 precision ref at Z2 in place of the antenna.
>
> I have a Spectrum analyzer with short wire as a pickup to observe
> radiation from antenna (I image 1/2 the trouble is here ?)
>
> When I sweep manually across say 800 MHz to 1GHz the VSWR gets worse
> when the radiated power increases and visa versa.
>
> When I then plug in a commercial antenna the VSWR does the same thing
> EXCEPT when it is in the region it is resonant, the VSWR improves as the
> level rises, at all other points the VSWR goes down as radiated power
> increases.
>
> Is there something silly going on here or is this what should happen.
> This is the first time I have attempted to measure an antenna so would
> appreciate any help.
> I notice the peaks at a reasonably fixed period
> (816,879,933,993,1.051G), can I learn something about the antenna from

> how apart these peaks ?
>
> Thanks in advance,

823. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 19:27:44 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dgpot2$c3v$1@news.service.uci.edu>
Source record: 70420

Richard Clark wrote:
> On Mon, 19 Sep 2005 16:43:59 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>>Reg Edwards wrote:
>>
>>>And remember Lord Kelvin.
>>
>>"X-rays will prove to be a hoax."
>>http://zapatopi.net/kelvin/quotes/
>
>
> Hi Jim,
>
> Certainly a trove of complexity. Keeping to the tenor of your choice:
> "I have not had a moment's peace or happiness in respect to
> electromagnetic theory since November 28, 1846. All this time I
> have been liable to fits of ether dipsomania, kept away at
> intervals only by rigorous abstention from thought on the
> subject."

Or as is my case, intervals of rigorous abstention from participating in discussions on rec.radio.amateur.antenna.

ac6xg

824. long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 20:21:23 UTC
From: zappa <cotefenetre@yahoo.com>
Message-ID: <43306f44$0$245$14726298@news.sunsite.dk>
Source record: 70421

Hi there,

I want to install a long wire antenna to my Sony ICF-SW7600GR, so I'm wondering whether it will significantly improve reception of already available broadcasts as well as getting new, farther, emissions.

How that long wire antenna should be made? I mean length, kind of wire, ...

I'm quite naive in the shortwave listening world, thus any kind of help would be very appreciated!

825. Re: Telonic VSWr kit "Rho_tector" - anyone used one ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 20:55:21 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <XFpbYVL5cHMDFwII@g3ohx.demon.co.uk>
Source record: 70422

In message <xQRXe.589$0E5.486@news-server.bigpond.net.au>, David
<groups@orbitcoms.com> writes
>Hi,
>
>I have a Telonic VSWR kit (Model TRB-2) tha is supposed to be good to
>2.5GHz. It has 0.5W rating stamped on it , Z1, Z2 , RF in and Detector
>out.
>
>It came wikth 1:1 and 2 x 2:1 Precision terminators.
>
>I would like to measure VSWR of antennae at 915 MHz using a RF Sig.
>Gen, the VSWR kit and a scope. I have a 1GHz spc analyzer also if
>required.
>
>1. Can I drive this properly with the +13dBm max. from the Sig. Gen and
>get reasonable results ?
>
>2. If so, what would be a good setup and test method.
>
>Thanks in advance for any help.
>
>Regards
>
>David

The Rhotector which I know is a Wheatstone bridge. It has a built-in
detector. The output is DC. You don't need a spectrum analyser. You can
use a multimeter. I used it with a sweep generator which had a maximum
output of about 56dBmV (about 8dBm).

The easiest way of using it is to insert a switched attenuator between
the generator and the RF input port. Connect the 1:1 load to Z1 or Z2
(the 'reference' port), and a 2:1 to the other (the 'unknown' port).
This represents an RLR of 10dB.
Set as much attenuation in which is consistent with getting a sensible
level of DC out (say, 20dB). Note the reading.

Remove the 2:1 load, and connect the antenna. Re-set the attenuator to
give the same DC reading. Note the attenuator setting.

The RLR of the antenna is simply 10dB + or - the difference in the
attenuator readings.

There is a small amount of error because the loading on the generator is
affected by the load on the 'unknown' port (unless the generator has
zero output impedance, which it won't have). There ways of reducing

this, but it isn't worth it. Your answer will be good enough for most purposes.

I'll send a diagram if you need one.

Cheers,
Ian.
--

826. Re: 802.11 antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 22:06:51 UTC
From: Dario <dariolq@yahoo.com>
Message-ID: <1127254011.272648.208340@g49g2000cwa.googlegroups.com>
Source record: 70423

Does the antenna you bought show a squashed donut shape for its pattern? Does it show a pattern at all? Telling you 9dBi doesn't say very much on how the antenna performs. It may be (unlikely though) that the 9dBi is only good through a few degrees of space (a pencil beam pattern). Knowing something about antennas obviously helps.

You posed a good question. It made me do a little research and I came up with the following. As you may also recall, if you space your elements in a an array lambda/2 apart. You get higher gain in the broadside direction. Say you stacked many monopoles (end to end) and made sure their phase centers (feed points in many cases) were lambda/2 apart the donut shape would be slightly preserved, squashing it down to a flatter donut, thereby increasing the gain. (Higher gain equates to narrower beamwidth). You would ultimately end up with a donut with ripples as you moved from the "hole" to the circumference of the donut. The points farthest away from the center would be the 9dBi gain. And as you would expect, you would only get that 9 dBi through a few degrees from the center of the antenna. The tricky part in this is feeding the many monopoles inside the plastic shaft in which your antenna array is encased. You want to be able to feed the monopoles without having your feed network radiate and throw off your desired pattern. This is where smarter people than I come in...

As for your question on the price... As Bob Bob said, gain isn't the only characteristic antennas have. The price difference could represent a differene in phase linearity from one point on the pattern to another. The matching network, beamwidth, bandwidth, side lobe levels, and a few others also make one antenna more desirable than others.

Regards,

Dario

827. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 23:42:24 UTC
From: David <groups@orbitcoms.com>
Message-ID: <A71Ye.987$0E5.559@news-server.bigpond.net.au>
Source record: 70424

Sorry about my description of the antenna. I still have not yet come to grips with the terms of reference. I called it end fed because the coax enters at the bottom but I have been advised it is actually a centre fed dipole.

The decoupling is via a 1/4 wave sleeve that provides high impedance for RF returning along outer coax and also as the second 1/2 of the dipole.

The level I noted is the signal strength seen on a spectrum analyzer (80mm wire at end of 1m cable) - this may be the 30" section that is producing the 60MHz dips. I also noticed the wavelength of this pickup wire is close to 1/4 wave at frequency of interest.

Would I be better to put a directional coupler in line with the Signal Generator output and sniff off to spec analyzer and look at dips in signal strength as indication of radiation occurring ? (I would like to see what the radiated power is doing at the same time as the VSWR is all over the place and hard to see what is happening when looking at that only). If I can do away with the wire pickup on the spectrum analyzer I can at least remove the effects of this being super imposed on the results.

The commercial antenna I am comparing against does have a peak radiated power at min. VSWR at frequency of interest and my antenna does not.

The style of antenna is the same (1/4 wave shunt sleeve and 1/4 wave radiating element).

Thanks for any more help.

Regards

David

K7ITM wrote:
> A half-wave end-fed wire, fed against a ground plane or similar
> counterpoise, will show a high impedance at (and near) resonance. If
> the antenna is fed through some length of line from the "VSWR
> detector," the impedance presented to the detector will be modified by
> that length of line; a 1000 ohm antenna might reflect 3 ohms through
> the line. But why would you expect a drop in indicated VSWR at
> resonance? -- When you say "when the radiated power increases," are
> you talking about increased field strength as measured by the spectrum
> analyzer, with a constant output setting from the generator? How far
> away is the spectrum analyzer antenna, in wavelengths, from the antenna
> you are trying to measure?
>
> If, as Cecil suspects, the antenna is really a center-fed half-wave,

> what have you done to decouple the feedline from the antenna? If the
> feedline comes coaxially out the end of the antenna, it may well be
> that the feedline is very poorly decoupled.
>
> Cheers,
> Tom
>

828. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-20 23:49:07 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Td1Ye.2068$Az1.1141@trnddc07>
Source record: 70425

"Cecil Moore" <mycall@arrl.net> wrote in message
news:1127236512_15129@spool6-east.superfeed.net...
> David wrote:
>> I have a 1/2 wave - end fed whip antenna that has been designed for
>> operation on 915 MHz.
>
> Last time I inquired about this antenna I was told it wasn't
> an end-fed but instead was a center-fed sleeve antenna. So
> which is it? (Anti)resonance on a bona fide end-fed 1/2WL
> antenna is pretty hard to nail down but it doesn't much matter.
> One just usually searches for a 50 ohm tap on a coil.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil

I have been in contact with David. I gave him sketches for building a centerfed 1/2 wave dipole with the coax feed line running inside one half of the dipole. I am sure he has constructed an antenna like that, center fed half wave dipole.

Jerry

829. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 00:31:03 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4330a9c8$0$22199$39cecf19@news.twtelecom.net>
Source record: 70326
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:
>
> Nowhere in The Bible does it say anything about a man finding
> it difficult to go through the eye of the needle. The "eye of
> the needle" gate was designed to allow men through, even rich
> ones, and keep camels out. The difficult thing for men was to
> enter the Kingdom of God, not get through the "eye of the
> needle" gate.

I just love to read superstition discussions. It helps me understand
why we really haven't gone anywhere except with the technical side of
civilization.

tom
K0TAR

830. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 00:35:29 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4330aad1$0$22199$39cecf19@news.twtelecom.net>
Source record: 70327
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Ham op wrote:

> Matt wrote:
>
> SNIPPED
>
>> This thread has degenerated into religious shit fighting. It has
>> absolutely
>> sweet fuck all to do with any of the NGs that it has been posted to- how
>> about we either revert to the original topic, close this thread down, or
>> move it to a religious discussion group where I feel that it would be far
>> more appropriate. Please?
>>
>>
>> Matt
>>
>>
>
> Your point is valid. Your language needs serious improvement!
>

Actually, his language was perfectly appropriate.

tom
K0TAR

831. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 00:42:30 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4330ac76$0$22199$39cecf19@news.twtelecom.net>
Source record: 70328

Reg Edwards wrote:

> "Ian Jackson" wrote -
>
>>Are you sure it's as high as that, Reg? I once did a Smith Chart
>
> plot of
>
>>the impedance at the centre of a dipole, the valued being taken from
>
> a
>
>>table 'compiled by Wu' (LK Wu?). These only catered for a lengths up
>
> to
>
>>a few wavelengths. As the plot progressed round and round the Smith
>>Chart, it seemed to be heading for something around 350 to 400 ohms.
>>
>>I've just done a search on 'Wu+dipole+impedance', and one of the
>
> results
>
>>is
>>http://www.fars.k6ya.org/docs/antenna-impedance-models.pdf
>>I'll have a read of it today.
>
> ==========
>
> The characteristic impedance of an infinitely long wire is Zo.
>
> If we cut the line and measure between the two ends we obtain an input
> impedance of twice Zo. Which is the answer to our problem.
>
> Zo is a function of wavelength, conductor diameter and conductor
> resistance R where R includes the uniformly distributed radiation
> resistance. On a high Zo line the radiation resistance is small
> compared with Zo and the only effect of the radiation resistance is to
> give Zo a small negative angle. Which when estimating Zo can be
> ignored. (It is conductor resistance which at HF gives Zo of ALL
> lines a very small negative angle).
>
> In the problem posed, the current is also uniformly distributed along
> the low-loss line and radiation resistance is not the value we are

> familiar with and what we might do with it.
>
> And so we get approximately -
>
> Rin = 120 * (Ln(Wavelength / 2 / d) - 1)
>
> At a wavelength of 2 metres and a conductor diameter of 10mm the input
> resistance = 433 ohms.
>
> I cannot guarantee the above formula to be correct. But is it low
> enough for you? ;o)
>
> Mr Wu calculates radiation resistance which is not the same as input
> impedance unless correctly referenced. It is usual in technical papers
> to calculate Radres at one end of the antenna. Or it may be the
> distributed value. I havn't the time to find and study the full text.
> From past experience, with me, it usually ends up as a wild goose
> chase.
> ----
> Reg.
>
>

Sounds reasonable, Reg. To put it for simple people like me, it would mean it's a transmission line of diameter x with an infinite diameter shield. Then we feed 2 of them, balanced, colinear, and that's our R sub r.

Did I misunderstand?

tom
K0TAR

832. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 00:45:36 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4330ad30$0$22199$39cecf19@news.twtelecom.net>
Source record: 70329

Roy Lewallen wrote:

> Sure. 42. It might not be better, but it's just as good. Formulas can be
> made very simple if you simply ignore any inconvenient facts. Like
> radiation from an antenna.
>
> Roy Lewallen, W7EL

42. The answer to the question, of life, the universe, and everything.

The movie wasn't bad, but the radio play was still better.

tom
K0TAR

833. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 00:55:34 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4330af86$0$22205$39cecf19@news.twtelecom.net>
Source record: 70330

Tom Ring wrote:
>
> Sounds reasonable, Reg. To put it for simple people like me, it would
> mean it's a transmission line of diameter x with an infinite diameter
> shield. Then we feed 2 of them, balanced, colinear, and that's our R
> sub r.
>
> Did I misunderstand?
>

Minus the radiation, of course.

Now, the question is, how much does that change things.

834. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 02:47:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127271026_15855@spool6-east.superfeed.net>
Source record: 70331
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:
> I just love to read superstition discussions. It helps me understand
> why we really haven't gone anywhere except with the technical side of
> civilization.

If the "Kingdom of God" doesn't actually exist in reality,
it was an especially logical statement, eh? :-)
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

835. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 02:57:23 UTC
From: "LenAnderson@ieee.org" <LenAnderson@ieee.org>
Message-ID: <1127271443.195835.320110@g49g2000cwa.googlegroups.com>
Source record: 70332
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

From: K□B on Sep 15, 12:09 pm

>How is "Christian charity" different from other charity, and do I need to be a
>member of your cult in order to get through the eye of the needle (and why would
>I want to?)?

If you want to have tailor-made replies, put your thread
through the eye of the needle...or you get needled.

LenAnderson@ieee.org

836. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 03:13:23 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4330cfd4$0$22205$39cecf19@news.twtelecom.net>
Source record: 70333
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:

> Tom Ring wrote:
>
>> I just love to read superstition discussions. It helps me understand
>> why we really haven't gone anywhere except with the technical side of
>> civilization.
>
>
> If the "Kingdom of God" doesn't actually exist in reality,
> it was an especially logical statement, eh? :-)

The amazing thing is that all these very smart people actually believe
this stuff.

tom
K0TAR

837. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 03:50:39 UTC
From: Charlie <charlie@play.com>
Message-ID: <11j1m569peve9e6@news.supernews.com>
Source record: 70334
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

So True Tom.....

Been there...done that!

--

Charlie

"Tom Ring" <news0002@taring.org> wrote in message
news:4330a9c8$0$22199$39cecf19@news.twtelecom.net...
> Cecil Moore wrote:
>>
>> Nowhere in The Bible does it say anything about a man finding
>> it difficult to go through the eye of the needle. The "eye of
>> the needle" gate was designed to allow men through, even rich
>> ones, and keep camels out. The difficult thing for men was to
>> enter the Kingdom of God, not get through the "eye of the
>> needle" gate.
>
> I just love to read superstition discussions. It helps me understand why
> we really haven't gone anywhere except with the technical side of
> civilization.
>
> tom
> K0TAR

838. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 04:03:20 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127275555_19265@spool6-east.superfeed.net>
Source record: 70335
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:
> The amazing thing is that all these very smart people actually believe
> this stuff.

Even with our DNA being 96% identical to a chimp's?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

839. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 04:10:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dgqmg3pvr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70336

"Tom Ring" <news0002@taring.org> wrote in message
news:4330af86$0$22205$39cecf19@news.twtelecom.net...
> Tom Ring wrote:
> >
> > Sounds reasonable, Reg. To put it for simple people like me, it
would
> > mean it's a transmission line of diameter x with an infinite
diameter
> > shield. Then we feed 2 of them, balanced, colinear, and that's
our R
> > sub r.
> >
> > Did I misunderstand?
> >
>
> Minus the radiation, of course.
>
> Now, the question is, how much does that change things.
>
==========
Tom,

Twas not I who posed the original "input impedance of an infinitely long dipole" question.

The radiation resistance does not enter very much into the solution. But in any case the radiation resistance is not the one we are accustomed to because the current distribution along the wire is not of sinewaveform but decays rather slowly exponentially.

I've just remembered the name of the real antenna which best fits the problem. It is the terminated Beverage which is just a very long horizontal wire some distance above ground.

The Zo of the Beverage is 60 * Ln(4 * Height / d) ohms, where d is wire diameter. When terminated its input resistance at LF is Zo (see the Bible, the ARRL Antenna Book). A typical value of Zo is 550 ohms.

Note that radiation resistance does not enter the formula although it cannot be denied radiation does occur. The formula is a close approximation which serves present purposes.

Putting two Beverages back-to-back to make a dipole we get an input impedance of 1100 ohms. The infinite dipole is in the same high impedance ballpark.

To calculate Zo of an isolated infinite dipole we shall have to change dimensions Height above ground disappears and is replaced by wavelength (or frequency).

Zo = 60 * (Ln(Wavelength / 2 / d) - 1) ohms, approximately.

A more exact formula involves inverse hyperbolic functions and wavelength, height, wire length, and wire diameter, but nobody ever uses it. You won't find it in Terman.

On the favourite American 40-meter band with a 14 AWG infinitely long wire Zo = 505 ohms.

Which makes the dipole input impedance = 1010 ohms but a nice, round 1000 ohms is near enough for me.

Your 'infinite shield' is a fair description for the return path but the end-effect is fairly large. I prefer 'the rest of the Universe'. But the nearest point is still the Earth's surface.

I leave the people, who attempted to use Smith Charts and Eznec to solve the interesting problem, to fathom out where they (or the charts or Eznec) went wrong.

Reg.

840. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 05:30:17 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <pbadna1SLLBncq3eRVn-vg@comcast.com>
Source record: 70337
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:

>> The amazing thing is that all these very smart people actually believe
>> this stuff.
>
>
> Even with our DNA being 96% identical to a chimp's?

I don't understand why people continue to be surprised that we share 96%
of our DNA with Bush.

841. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 06:15:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s7u1j19k809urlo9bdqs79phlnlpavieuj@4ax.com>
Source record: 70338
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 20 Sep 2005 22:30:17 -0700, Zoran Brlecic
<...WA7AA...@get.lost> wrote:

>I don't understand why people continue to be surprised that we share 96%
>of our DNA with Bush.
The poster boy for untelligent design.

Years hence the "Republicans" will blame Clinton for him too. :-)

842. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 10:59:43 UTC
From: Brad <"bradvk2qq at w6ir.com">
Message-ID: <43313df9$0$253$14726298@news.sunsite.dk>
Source record: 70339
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<LenAnderson@ieee.org> wrote in message
news:1127271443.195835.320110@g49g2000cwa.googlegroups.com...
From: K?B on Sep 15, 12:09 pm

>How is "Christian charity" different from other charity, and do I need to
>be a
>member of your cult in order to get through the eye of the needle (and why
>would
>I want to?)?

Christian Charity is a point scoring exercise with God. It is done for
selfish reasons, to make sure you are noticed by God and he lets you in.

843. Re: help requested for designing 4-square inverted L on 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 11:44:21 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1127303061.290311.166100@o13g2000cwo.googlegroups.com>
Source record: 70340

eternalsquire@comcast.net schreef:

> Very well. Thanks anyway.
>
> The Eternal Squire

By the way, you can easily, convert the 4SqTL.EZ file into Nec2 or Nec4 format (to do some further comparisons) by opening it in 4nec2. It should be automatically converted, including feed-line system.

Success,
Arie.

844. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 13:19:41 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <qoGdnYYUipyCw6zeRVn-pw@comcast.com>
Source record: 70341
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:
> Ham op wrote:
>
>> Matt wrote:
>>
>> SNIPPED
>>
>>> This thread has degenerated into religious shit fighting. It has
>>> absolutely
>>> sweet fuck all to do with any of the NGs that it has been posted to- how
>>> about we either revert to the original topic, close this thread down, or
>>> move it to a religious discussion group where I feel that it would be
>>> far
>>> more appropriate. Please?
>>>
>>>
>>> Matt
>>>
>>>
>>
>> Your point is valid. Your language needs serious improvement!
>>
>
> Actually, his language was perfectly appropriate.
>
> tom
> K0TAR

Tom, that says a lot about you also. And, it's not a favorable
impression you make.

845. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 14:40:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <43109$43317117$97d56a13$4287@ALLTEL.NET>
Source record: 70342
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Do you not think it somewhat supercilious to cavalierly dismiss the beliefs
held by others?

Have you been blessed with some special insight to the universe that allows
you to, with such certainty, declare all religious beliefs as superstition?

"Tom Ring" <news0002@taring.org> wrote in message
news:4330a9c8$0$22199$39cecf19@news.twtelecom.net...
> I just love to read superstition discussions. It helps me understand
> why we really haven't gone anywhere except with the technical side of
> civilization.
>
> tom
> K0TAR

846. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 14:49:38 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <39979$43317324$97d56a13$4724@ALLTEL.NET>
Source record: 70343
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

While my opinions of Bush are no more or less valid than that of others,
facts have shown that President Bush had both Higher SAT's and grades than
the "super intelligent" Democratic alternative.

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
news:pbadna1SLLBncq3eRVn-vg@comcast.com...
> Cecil Moore wrote:
>
> >> The amazing thing is that all these very smart people actually believe
> >> this stuff.
> >
> >
> > Even with our DNA being 96% identical to a chimp's?
>
>
> I don't understand why people continue to be surprised that we share 96%
> of our DNA with Bush.

847. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 15:03:52 UTC
From: whinyslit_lloydie@yahoo.com
Message-ID: <1127315032.257100.193750@g14g2000cwa.googlegroups.com>
Source record: 70344
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

And Kerry has higher SAT scores than you.

848. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 17:15:26 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1127322926.234874.85900@g43g2000cwa.googlegroups.com>
Source record: 70345

Hi David,

You wrote, "The decoupling is via a 1/4 wave sleeve that provides high impedance for
RF returning along outer coax and also as the second 1/2 of the dipole. "

EXACTLY how is this built? The details of construction make a BIG difference in performance! (There's a lot of BAD info about it out there...)

It's not a bad idea to ALSO put some additional decoupling further down the feedline.

If your spectrum analyzer/field strength meter is far enough away from the antenna you are testing, then it should provide a reasonable indication of relative antenna radiation performance. The SWR indication, if properly calibrated and given that you are apparently exciting the antenna with a source whose output impedance matches your feedline, should also be a good indication of power actually absorbed by the antenna. That is, lowest SWR represents maximum power absorbed by the antenna. Presumably that power is being radiated as RF, mostly, and not dissipated as heat. But where the RF radiation goes depends on the pattern of currents excited on the conductors that compose the antenna, and nearby conductors as well (such as the feedline). What you probably want is standard resonant half-wave dipole currents on your vertical dipole, and no (very little) antenna current on the feedline and on support structures. By the way, whether the antenna is resonant or not is of little real importance, so long as you can efficiently feed power to it and the antenna currents are in the right places and not the wrong places. But it happens that with your antenna, if things are working properly (properly decoupled feedline, etc), you probably will see lowest SWR at half-wave resonance. If you have no other matching going on, the lowest SWR will probably be about 1.5:1 with 50 ohm feedline. You could add parts to get a better match if you wished.

And as you can probably tell from all that, I'm suspecting that your decoupling sleeve, with associated dielectrics in that area, probably isn't doing a very good job...

Also...Joe noted that your coax feedline may well be a length that accounts for the SWR peaks and valleys. (I think it may be about twice as long as Joe wrote...but same idea.) Do you see the peaks and valleys when you terminate the line in the precision 2:1 load? If you do NOT, then it's a further indication that the feedline has antenna

currents on it, because the flat 2:1 is an indication that your transmission line is matched to the calibration impedance of the SWR bridge, and if that's the case, the SWR bridge should be giving at reasonably accurate estimate of the actual line SWR. If you DO see the SWR ripples vs frequency with just the precision load, either the load isn't "flat" or the line is not the same impedance as the SWR bridge is calibrated to, and the differing impedances is by far the most probable explanation if the line length is right.

Cheers,
Tom

849. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 17:34:04 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <gQgYe.902$xc4.335@newssvr13.news.prodigy.com>
Source record: 70346
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> Do you not think it somewhat supercilious to cavalierly dismiss the beliefs
> held by others?
>
> Have you been blessed with some special insight to the universe that allows
> you to, with such certainty, declare all religious beliefs as superstition?
>
>
>
>
> "Tom Ring" <news0002@taring.org> wrote in message
> news:4330a9c8$0$22199$39cecf19@news.twtelecom.net...
>
>>I just love to read superstition discussions. It helps me understand
>>why we really haven't gone anywhere except with the technical side of
>>civilization.
>>
>>tom
>>K0TAR
>
>
>

Maybe you should remember this the next time you find yourself
hammering non-Christian religions, Fred. I haven't met many
religious fanatics who didn't dismiss the beliefs of other
people as bunk.
73,
Tom Donaly, KA6RUH

850. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 17:54:41 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <11j37iuca45hve6@corp.supernews.com>
Source record: 70347
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:39979$43317324$97d56a13$4724@ALLTEL.NET...
> While my opinions of Bush are no more or less valid than that of others,
> facts have shown that President Bush had both Higher SAT's and grades than
> the "super intelligent" Democratic alternative.
>
> "Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
> news:pbadna1SLLBncq3eRVn-vg@comcast.com...
>> Cecil Moore wrote:
>>
>> >> The amazing thing is that all these very smart people actually believe
>> >> this stuff.
>> >
>> >
>> > Even with our DNA being 96% identical to a chimp's?
>>

I believe the latest info I've seen on that gave a figure of 98.5%
identical.

Harold
KD5SAK

851. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 18:49:36 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e8cbc$4331ab60$97d56a13$14857@ALLTEL.NET>
Source record: 70348
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

I hardly consider myself a fanatic, and am extremely unlike to "hammer"
anyone over religion, or lack there of.

Some of the most fanatical are those members of the religion of atheism.

These folks find it threatening that someone may have a set of beliefs, and
feel the only recourse is to attack those beliefs. Makes one wonder if they
find it necessary to stand in department store lines, demanding that little
children give up the idea of Santa Claus, which they find equally
believable.

I personally don't care what anyone's belief set is. I do find it abhorrent
that some are more active for atheism , than a Jehovah Witness beating on
the door selling salvation.

My feeling is that most are simply crying out for attention, and know the
religion button is a simple one to push.

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:gQgYe.902$xc4.335@newssvr13.news.prodigy.com...
> Maybe you should remember this the next time you find yourself
> hammering non-Christian religions, Fred. I haven't met many
> religious fanatics who didn't dismiss the beliefs of other
> people as bunk.
> 73,
> Tom Donaly, KA6RUH

852. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 20:23:54 UTC
From: Anonymous via the Cypherpunks Tonga Remailer <nobody@cypherpunks.to>
Message-ID: <20050921202354.52A2E1713F@mail.cypherpunks.to>
Source record: 70349
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
In article <43109$43317117$97d56a13$4287@ALLTEL.NET>
"Fred W4JLE" <w...@w4jle.com> wrote:
>
> Do you not think it somewhat supercilious to cavalierly dismiss the beliefs
> held by others?
>
> Have you been blessed with some special insight to the universe that allows
> you to, with such certainty, declare all religious beliefs as superstition?

It's for weak minded fools like you, child molester who pretends to be a
christian.

>
> "Tom Ring" <news0...@taring.org> wrote in message
> news:4330a9c8$0$22199$39cecf19@news.twtelecom.net...
> > I just love to read superstition discussions. It helps me understand
> > why we really haven't gone anywhere except with the technical side of
> > civilization.
> >
> > tom
> > K0TAR
```

853. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 20:38:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127335266_20031@spool6-east.superfeed.net>
Source record: 70350
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Harold Burton wrote:
>>>Cecil Moore wrote:
>>>>Even with our DNA being 96% identical to a chimp's?
>
> I believe the latest info I've seen on that gave a figure of 98.5%
> identical.

They have only recently decoded the chimp's DNA genome.
The new figures seem to be 96% identical, 98.5% very similar.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

854. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 21:42:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <RNSdnYxN5smKSazeRVn-sg@comcast.com>
Source record: 70351
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:

> I hardly consider myself a fanatic, and am extremely unlike to "hammer"
> anyone over religion, or lack there of.
>
> Some of the most fanatical are those members of the religion of atheism.
>
SNIPPED

Fred brings up an interesting point. Atheism IS a RELIGION!!

I define RELIGION as a set of beliefs that influence behavior.

Merriam-Webster defines RELIGION in a similar fashion [Note #2 and 4]:

"Main Entry: reï¿½liï¿½gion
Pronunciation: ri-'li-j&n
Function: noun

Etymology: Middle English religioun, from Latin religion-, religio
supernatural constraint, sanction, religious practice, perhaps from
religare to restrain, tie back -- more at RELY

1 a : the state of a religious <a nun in her 20th year of religion>
b (1) : the service and worship of God or the supernatural
(2) : commitment or devotion to religious faith or observance

2 : a personal set or institutionalized system of religious attitudes,
beliefs, and practices

3 archaic : scrupulous conformity : CONSCIENTIOUSNESS

4 : a cause, principle, or system of beliefs held to with ardor and faith"

855. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 22:31:56 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <wblYe.1578$oc.841@newsread2.news.pas.earthlink.net>
Source record: 70352
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Ham op" <hamop@comcast.net> wrote

>
> 4 : a cause, principle, or system of beliefs held to with ardor and faith"
>

If we accept this definition of "religion" as a system of beliefs that contains unprovable statements taken only on faith, then Kurt Godel taught us that mathematics is not only a religion, it is the only religion that can prove itself to be one.

73, de Hans, K0HB

856. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 22:56:20 UTC
From: David <groups@orbitcoms.com>
Message-ID: <oylYe.9306$0E5.5010@news-server.bigpond.net.au>
Source record: 70353

Tom,

Thanks for the information. The inner coax is the smaller RG174 coax.
The sleeve is made of earth braid pulled from RG58 cable. The dielectric
between the sleeve and inner cable is therefore the outer sheath of the
RG174 cable (Not sure what this is, the RG174 I have is Teflon inner
dielectric and stranded conductor. The utter sheath is a very strong
heat resistant material - I therefore have no ideal of the dielectric
constant to calculate Vp for correct electrical length). If I use a
copper tube and strip off the sheath from the inner coax, I can
calculate correct length as it will have an air dielectric.

Do you know where everyone is getting the dielectric constants for
various materials ? I noted people using small metal tubes as sleeves
and quoting these magic numbers even for copper tubes of certain diameters.

From my discussion with Telonic, they say the Rho_Tector was designed
as an in-house tool for measuring inputs of amps and filters. They
suggest SWR meter would probably be best for antenna adjustments.
Do you happen to know where I might find details for a low power SWR
meter for 915 MHz ? I need one that will operate with only 20mW applied
power. The only SWR meter I have has min. FSD of 3W

Thanks

Regards

David

K7ITM wrote:
> Hi David,
>
> You wrote, "The decoupling is via a 1/4 wave sleeve that provides high
> impedance for
> RF returning along outer coax and also as the second 1/2 of the
> dipole. "
>
> EXACTLY how is this built? The details of construction make a BIG
> difference in performance! (There's a lot of BAD info about it out
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> indication of relative antenna radiation performance. The SWR
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> feedline, should also be a good indication of power actually absorbed
> by the antenna. That is, lowest SWR represents maximum power absorbed
> by the antenna. Presumably that power is being radiated as RF, mostly,
> and not dissipated as heat. But where the RF radiation goes depends on
> the pattern of currents excited on the conductors that compose the
> antenna, and nearby conductors as well (such as the feedline). What
> you probably want is standard resonant half-wave dipole currents on
> your vertical dipole, and no (very little) antenna current on the
> feedline and on support structures. By the way, whether the antenna is
> resonant or not is of little real importance, so long as you can
> efficiently feed power to it and the antenna currents are in the right
> places and not the wrong places. But it happens that with your
> antenna, if things are working properly (properly decoupled feedline,
> etc), you probably will see lowest SWR at half-wave resonance. If you
> have no other matching going on, the lowest SWR will probably be about
> 1.5:1 with 50 ohm feedline. You could add parts to get a better match
> if you wished.
>
> And as you can probably tell from all that, I'm suspecting that your
> decoupling sleeve, with associated dielectrics in that area, probably
> isn't doing a very good job...
>
> Also...Joe noted that your coax feedline may well be a length that
> accounts for the SWR peaks and valleys. (I think it may be about twice
> as long as Joe wrote...but same idea.) Do you see the peaks and
> valleys when you terminate the line in the precision 2:1 load? If you
> do NOT, then it's a further indication that the feedline has antenna
> currents on it, because the flat 2:1 is an indication that your
> transmission line is matched to the calibration impedance of the SWR
> bridge, and if that's the case, the SWR bridge should be giving at
> reasonably accurate estimate of the actual line SWR. If you DO see the
> SWR ripples vs frequency with just the precision load, either the load
> isn't "flat" or the line is not the same impedance as the SWR bridge is
> calibrated to, and the differing impedances is by far the most probable
> explanation if the line length is right.
>
> Cheers,
> Tom
>

857. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 23:16:27 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <fRIYe.1481$zQ3.16@newsread1.news.pas.earthlink.net>
Source record: 70354
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Fred W4JLE" <w4jle@w4jle.com> wrote

> .... members of the religion of atheism.

Fred, that idea is straight out of Alice in Wonderland!

Up is down, and atheism, the antithesis of religion, is religion.

Sunuvagun!

73, de Hans, K0HB
Agnostic ("Maybe you're right, but I'm not going to take it on faith.")

858. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 23:44:05 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <APadnSvf_azebazeRVn-vw@adelphia.com>
Source record: 70355
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Ham op wrote:
> Fred W4JLE wrote:
>
>> I hardly consider myself a fanatic, and am extremely unlike to "hammer"
>> anyone over religion, or lack there of.
>>
>> Some of the most fanatical are those members of the religion of atheism.
>>
> SNIPPED
>
> Fred brings up an interesting point. Atheism IS a RELIGION!!
>
> I define RELIGION as a set of beliefs that influence behavior.
>
> Merriam-Webster defines RELIGION in a similar fashion [Note #2 and 4]:
>
> "Main Entry: reï¿½liï¿½gion
> Pronunciation: ri-'li-j&n
> Function: noun
>
> Etymology: Middle English religioun, from Latin religion-, religio
> supernatural constraint, sanction, religious practice, perhaps from
> religare to restrain, tie back -- more at RELY
>
> 1 a : the state of a religious <a nun in her 20th year of religion>
> b (1) : the service and worship of God or the supernatural
> (2) : commitment or devotion to religious faith or observance
>
> 2 : a personal set or institutionalized system of religious attitudes,
> beliefs, and practices
>
> 3 archaic : scrupulous conformity : CONSCIENTIOUSNESS
>
> 4 : a cause, principle, or system of beliefs held to with ardor and faith"
>
>

Wow. I have faith that if I fall off the rim of the Grand Canyon, or
any great height, that I will most likely bite the big on upon landing.
Therefore I do not engage in risky behavior such as spinning around
until I get dizzy when I am near the edge of long drops.

I believe that I will bite the big one if I fall hundreds or thousands of feet. My belief most definitely influences my behavior.

So Have I come up with some new sort of religion here?

And I truly see you reading a lot more into this than the definition provides

- Mike KB3EIA -

859. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 23:48:24 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <zu-dnbKc0OHYbKzeRVn-jA@adelphia.com>
Source record: 70356
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Kï¿½HB wrote:
> "Fred W4JLE" <w4jle@w4jle.com> wrote
>
>
>>.... members of the religion of atheism.
>
>
> Fred, that idea is straight out of Alice in Wonderland!
>
> Up is down, and atheism, the antithesis of religion, is religion.
> Sunuvagun!

Hans, the Atheism as a religion is just a reserve argument that the CC Fundies are holding in their hands, so that they can claim that Evolution is a (atheistic) belief, and therefore a religion, which leads to the argument that they have every right to force their religious beliefs on us, since the "religion" of evolution has been forced on the nations children for so long.

- Mike KB3EIA -

860. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-21 23:59:14 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <mtmYe.88641$EX.7904@twister.nyroc.rr.com>
Source record: 70357
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

This is way off-topic. Watch out for Pat, before he nails you.

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:zu-dnbKc0OHYbKzeRVn-jA@adelphia.com...
> K&#65533;HB wrote:
>> "Fred W4JLE" <w4jle@w4jle.com> wrote
>>
>>
>>>.... members of the religion of atheism.
>>
>>
>> Fred, that idea is straight out of Alice in Wonderland!
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>> Up is down, and atheism, the antithesis of religion, is religion.
>> Sunuvagun!
>
> Hans, the Atheism as a religion is just a reserve argument that the CC
> Fundies are holding in their hands, so that they can claim that Evolution
> is a (atheistic) belief, and therefore a religion, which leads to the
> argument that they have every right to force their religious beliefs on
> us, since the "religion" of evolution has been forced on the nations
> children for so long.
>
> - Mike KB3EIA -

861. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 00:09:49 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <Vb6dnXBKkePXa6zeRVn-jQ@adelphia.com>
Source record: 70358
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Pat Stevens wrote:
> This is way off-topic. Watch out for Pat, before he nails you.

I have faith in that!

> "Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
> news:zu-dnbKc0OHYbKzeRVn-jA@adelphia.com...
>
>>Kï¿½HB wrote:
>>
>>>"Fred W4JLE" <w4jle@w4jle.com> wrote
>>>
>>>
>>>
>>>>.... members of the religion of atheism.
>>>
>>>
>>>Fred, that idea is straight out of Alice in Wonderland!
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>>>Up is down, and atheism, the antithesis of religion, is religion.
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>>
>>Hans, the Atheism as a religion is just a reserve argument that the CC
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>>is a (atheistic) belief, and therefore a religion, which leads to the
>>argument that they have every right to force their religious beliefs on
>>us, since the "religion" of evolution has been forced on the nations
>>children for so long.
>>
>>- Mike KB3EIA -
>
>
>

862. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 00:29:52 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <4WmYe.1867$0m6.1382@newsread3.news.pas.earthlink.net>
Source record: 70359
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote

> Pat Stevens wrote:
>> This is way off-topic. Watch out for Pat, before he nails you.
>
> I have faith in that!
>

Verily, verily sayest thee! Beware, lest thou be smitten by Lord Pat!

73, de Hans, K0HB
Grand Exhalted Liberator of the Electric Smoke

863. www.ukradioamateur

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 00:37:44 UTC
From: Chris I Townsend <chris@cbnr.net>
Message-ID: <0viyS+TYzfMDFwDp@holmfirth.demon.co.uk>
Source record: 70360

Hi,

Some of you, hopefully many of you, may be aware of the existence of the "Amateur Radio Course" project which provides a number on-line and downloadable tutorials for the various UK amateur radio examinations.

Due to the sudden, unexpected and unexplained withdrawal of support by the company who up to now have very kindly hosted our web-site free of charge, and their even more unexpected failure to communicate with me regarding how we might transfer or redirect the URL which they registered for us but now will not let us use, our site is no longer available to the clubs and individuals who benefited from it.

Can you therefore help us and please publicise as widely as possible the following information.

The "Amateur Radio Course" which was located at www.ukradioamateur.org is now relocated at www.radioamateur.co.uk

There may be a number of functions that are not working due to the sudden move, but they will be fixed within the next few days.

It remains, as always, a non-profit making activity sponsored and supported entirely by the group of individuals who give up their time and resources free of charge to support and promote interest in the hobby.

I apologise for posting this message in so many newsgroups, but I need the new URL to be publicised as rapidly as possible.

Many thanks to you for your help, best wishes and 73's

Chris
G8PUT

--
Chris I Townsend

(chris@cbnr.net)

864. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 01:49:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127353913_243@spool6-east.superfeed.net>
Source record: 70361
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Kï¿½HB wrote:
> 73, de Hans, K0HB
> Agnostic ("Maybe you're right, but I'm not going to take it on faith.")

Some say yes, some say no, and I'm inclined to agree.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

865. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 03:16:14 UTC
From: kashe@sonic.net
Message-ID: <3f84j1t6o536tgnekhutv1ruepdo5d5ggs@4ax.com>
Source record: 70362
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 19 Sep 2005 22:22:10 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Mon, 19 Sep 2005 05:41:38 GMT, kashe@sonic.net wrote:
>
>>>It's bad enough that people feel a need to believe in any deities at
>>>all, but when you have to listen to a bunch of old men in robes half a
>>>world away tell you how to live your life, you're pretty screwed up.
>>
>> Is this a slam against our Muslim brethren? A comment on the
>>position of Saudi Arabian women?
>
>Pope worshipers and Mohamahdists are all the same to me...

That says more about you than about them.

866. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 03:17:10 UTC
From: kashe@sonic.net
Message-ID: <ag84j1dq9lhtjg1b08eb80o3bpqct1eo8d@4ax.com>
Source record: 70363
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 19 Sep 2005 21:40:08 -0500, "Charlie" <charlie@play.com>
wrote:

>Same here Ted....
>
>Religion is the opiate of the masses.

Mindless Marxist cliches are the opiate of the
sub-intelligent.
>
>I prefer a free and satisfied mind...

867. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 03:18:50 UTC
From: kashe@sonic.net
Message-ID: <3k84j1lavg46c4rnsqb8hpdc8vi815gker@4ax.com>
Source record: 70364
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 20 Sep 2005 23:03:20 -0500, Cecil Moore <mycall@arrl.net>
wrote:

>Tom Ring wrote:
>> The amazing thing is that all these very smart people actually believe
>> this stuff.
>
>Even with our DNA being 96% identical to a chimp's?

99.5% in some of the local cases. :-)

868. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 04:34:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <stc4j1lvb8tprbjdv15lmoq6pjjkra1qo9@4ax.com>
Source record: 70365
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 21 Sep 2005 22:31:56 GMT, "Kï¿½HB" <groupk0hb@earthlink.net>
wrote:

> Kurt Godel taught us that
>mathematics is not only a religion, it is the only religion that can prove
>itself to be one.

Hi Hans,

Godel actually taught us that any system of belief, by its own rules
of consistency must include the statement that

1 + 1 = 3

Technologists would find that quite difficult to live with, some of
the religious (if not in that same crew) would also find it difficult.
Then there are those who would simply accept it on faith.

73's
Richard Clark, KB7QHC

869. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 06:35:12 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1127370912.498824.180680@g43g2000cwa.googlegroups.com>
Source record: 70366

I would expect the outer is a Teflon or Teflon-like material, with probably low loss and fairly low relative dielectric constant, but it's still going to require that you shorten that lower section quite a bit to get the quarter-wave stub to reflect a high impedance. In addition, the dielectric between the outer of the coax and the inner of the sleeve is pretty thin, and the impedance of the resulting coaxial arrangement is pretty low. That means that it won't ever reflect a very high impedance. You can use a tapered sleeve that bells out at the bottom, to good effect. That will also lower the feedpoint impedance and match better to 50 ohms. Think: ground plane with drooping radials. But you can also wind the coax just below the antenna into a small coil (I'd make the axis of the coil coincide with the axis of the antenna) that's self-resonant near your operating frequency, and it will very effectively choke off antenna current (current on the outside of the coax) at that point. Put one such coil an inch or so below the bottom of the sleeve, and another about a quarter wave further down the line.

SWR meter: Get RFSim99--do a Google search for it. Build a coupler, per tools>>design>>coupler. I'd suggest a microstrip version, if you can make a little PC board reasonably accurately. Design it for 50 ohms. Terminate each coupled port in 50 ohms (e.g. 49.9 ohm 0805 SMT part). Using vanishingly short leads, connect a simple diode detector to each of those two loads. Use a calibrated attenuator to calibrate at least the relative response of those detectors. Use those two outputs to calculate SWR. You can read the diode detector outputs with a DVM that has good resolution (10uV sensitivity preferred; 1uV is even better). I'd recommend about a 20dB coupler for the power level you're using, though even a 30dB coupler would work. Try terminating the through line in a 49.9 ohm (or a parallel pair of 100 ohm) 0805 parts to check that you see essentially no reflected, and try a 100 ohm load and a 25 ohm load to check that you get the expected reflected. -- To have the coupling right according to the RFSim99 directions, it needs to be 1/4 wave long, but it's a pretty broad peak. Coupling drops to zero at 1/2 wave, and at DC. So you could make one for 900MHz, and it would work OK at 450MHz, you'd just get lower coupling. The ratio for SWR would still be OK. The 450MHz version on FR4 board (fiberglass-epoxy) would be roughly four inches long, if my mental arithmetic is right, and half that for 900MHz.

Cheers,
Tom

David wrote:
> Tom,

>
> Thanks for the information. The inner coax is the smaller RG174 coax.
> The sleeve is made of earth braid pulled from RG58 cable. The dielectric
> between the sleeve and inner cable is therefore the outer sheath of the
> RG174 cable (Not sure what this is, the RG174 I have is Teflon inner
> dielectric and stranded conductor. The utter sheath is a very strong
> heat resistant material - I therefore have no ideal of the dielectric
> constant to calculate Vp for correct electrical length). If I use a
> copper tube and strip off the sheath from the inner coax, I can
> calculate correct length as it will have an air dielectric.
>
> Do you know where everyone is getting the dielectric constants for
> various materials ? I noted people using small metal tubes as sleeves
> and quoting these magic numbers even for copper tubes of certain diameters.
>
> From my discussion with Telonic, they say the Rho_Tector was designed
> as an in-house tool for measuring inputs of amps and filters. They
> suggest SWR meter would probably be best for antenna adjustments.
> Do you happen to know where I might find details for a low power SWR
> meter for 915 MHz ? I need one that will operate with only 20mW applied
> power. The only SWR meter I have has min. FSD of 3W
>
> Thanks
>
> Regards
>
> David
>
> K7ITM wrote:
> > Hi David,
> >
> > You wrote, "The decoupling is via a 1/4 wave sleeve that provides high
> > impedance for
> > RF returning along outer coax and also as the second 1/2 of the
> > dipole. "
> >
> > EXACTLY how is this built? The details of construction make a BIG
> > difference in performance! (There's a lot of BAD info about it out
> > there...)
> >
> > It's not a bad idea to ALSO put some additional decoupling further down
> > the feedline.
> >
> > If your spectrum analyzer/field strength meter is far enough away from
> > the antenna you are testing, then it should provide a reasonable
> > indication of relative antenna radiation performance. The SWR
> > indication, if properly calibrated and given that you are apparently
> > exciting the antenna with a source whose output impedance matches your
> > feedline, should also be a good indication of power actually absorbed
> > by the antenna. That is, lowest SWR represents maximum power absorbed

> > by the antenna. Presumably that power is being radiated as RF, mostly,
> > and not dissipated as heat. But where the RF radiation goes depends on
> > the pattern of currents excited on the conductors that compose the
> > antenna, and nearby conductors as well (such as the feedline). What
> > you probably want is standard resonant half-wave dipole currents on
> > your vertical dipole, and no (very little) antenna current on the
> > feedline and on support structures. By the way, whether the antenna is
> > resonant or not is of little real importance, so long as you can
> > efficiently feed power to it and the antenna currents are in the right
> > places and not the wrong places. But it happens that with your
> > antenna, if things are working properly (properly decoupled feedline,
> > etc), you probably will see lowest SWR at half-wave resonance. If you
> > have no other matching going on, the lowest SWR will probably be about
> > 1.5:1 with 50 ohm feedline. You could add parts to get a better match
> > if you wished.
> >
> > And as you can probably tell from all that, I'm suspecting that your
> > decoupling sleeve, with associated dielectrics in that area, probably
> > isn't doing a very good job...
> >
> > Also...Joe noted that your coax feedline may well be a length that
> > accounts for the SWR peaks and valleys. (I think it may be about twice
> > as long as Joe wrote...but same idea.) Do you see the peaks and
> > valleys when you terminate the line in the precision 2:1 load? If you
> > do NOT, then it's a further indication that the feedline has antenna
> > currents on it, because the flat 2:1 is an indication that your
> > transmission line is matched to the calibration impedance of the SWR
> > bridge, and if that's the case, the SWR bridge should be giving at
> > reasonably accurate estimate of the actual line SWR. If you DO see the
> > SWR ripples vs frequency with just the precision load, either the load
> > isn't "flat" or the line is not the same impedance as the SWR bridge is
> > calibrated to, and the differing impedances is by far the most probable
> > explanation if the line length is right.
> >
> > Cheers,
> > Tom
> >

870. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 07:02:59 UTC
From: David <groups@orbitcoms.com>
Message-ID: <DGsYe.9753$0E5.3307@news-server.bigpond.net.au>
Source record: 70367

Tom,

Thanks for the suggestion. I have used RFsim and come up with dimensions for a 915 MHz version.
I would like to put a coupling strip each side of the centre to pick up forward and reverse power at the same time. The description in RFsim don't mention this - Do you know if I need to make any alterations in dimensions to accommodate this or should I have a second 1/4 in series with another coupler that picks up reverse power ?

I would like to use the AD8302 Gain/Phase device to measure the incident and reflected voltages. This thing will has an input range of -60dBm to 0dBm which will be great if I feed the directional coupler with 0dBm and the coupling is -20dB. It provides measurement for +/- 30dB and Phase orange over 180 degrees. It also will operate to 2.7GHz so should be ok for the 915Mhz.

I thought I would make this gain/phase detector in a separate enclosure so I can unplug it from the directional coupler and use it for Amp gain/phase etc. With additional of a PIC micro and LCD display it could be programmed to provide various measurement types.

There are construction details in the ARRL Antenna book for a fixed gain antenna that looks good for a reference.

Hopefully this will give me a suitable arrangement for setting up 900MHz band antennae using the sig gen power levels.

Regards

David

K7ITM wrote:
> I would expect the outer is a Teflon or Teflon-like material, with
> probably low loss and fairly low relative dielectric constant, but it's
> still going to require that you shorten that lower section quite a bit
> to get the quarter-wave stub to reflect a high impedance. In addition,
> the dielectric between the outer of the coax and the inner of the
> sleeve is pretty thin, and the impedance of the resulting coaxial
> arrangement is pretty low. That means that it won't ever reflect a
> very high impedance. You can use a tapered sleeve that bells out at
> the bottom, to good effect. That will also lower the feedpoint
> impedance and match better to 50 ohms. Think: ground plane with
> drooping radials. But you can also wind the coax just below the
> antenna into a small coil (I'd make the axis of the coil coincide with
> the axis of the antenna) that's self-resonant near your operating
> frequency, and it will very effectively choke off antenna current

> (current on the outside of the coax) at that point. Put one such coil
> an inch or so below the bottom of the sleeve, and another about a
> quarter wave further down the line.
>
> SWR meter: Get RFSim99--do a Google search for it. Build a coupler,
> per tools>>design>>coupler. I'd suggest a microstrip version, if you
> can make a little PC board reasonably accurately. Design it for 50
> ohms. Terminate each coupled port in 50 ohms (e.g. 49.9 ohm 0805 SMT
> part). Using vanishingly short leads, connect a simple diode detector
> to each of those two loads. Use a calibrated attenuator to calibrate
> at least the relative response of those detectors. Use those two
> outputs to calculate SWR. You can read the diode detector outputs with
> a DVM that has good resolution (10uV sensitivity preferred; 1uV is even
> better). I'd recommend about a 20dB coupler for the power level you're
> using, though even a 30dB coupler would work. Try terminating the
> through line in a 49.9 ohm (or a parallel pair of 100 ohm) 0805 parts
> to check that you see essentially no reflected, and try a 100 ohm load
> and a 25 ohm load to check that you get the expected reflected. -- To
> have the coupling right according to the RFSim99 directions, it needs
> to be 1/4 wave long, but it's a pretty broad peak. Coupling drops to
> zero at 1/2 wave, and at DC. So you could make one for 900MHz, and it
> would work OK at 450MHz, you'd just get lower coupling. The ratio for
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> (fiberglass-epoxy) would be roughly four inches long, if my mental
> arithmetic is right, and half that for 900MHz.
>
> Cheers,
> Tom
>
>
> David wrote:
>
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>>
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>>The sleeve is made of earth braid pulled from RG58 cable. The dielectric
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>>dielectric and stranded conductor. The utter sheath is a very strong
>>heat resistant material - I therefore have no ideal of the dielectric
>>constant to calculate Vp for correct electrical length). If I use a
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>>suggest SWR meter would probably be best for antenna adjustments.
>>Do you happen to know where I might find details for a low power SWR
>>meter for 915 MHz ? I need one that will operate with only 20mW applied
>>power. The only SWR meter I have has min. FSD of 3W
>>
>>Thanks
>>
>>Regards
>>
>>David
>>
>>K7ITM wrote:
>>
>>>Hi David,
>>>
>>>You wrote, "The decoupling is via a 1/4 wave sleeve that provides high
>>>impedance for
>>> RF returning along outer coax and also as the second 1/2 of the
>>>dipole. "
>>>
>>>EXACTLY how is this built? The details of construction make a BIG
>>>difference in performance! (There's a lot of BAD info about it out
>>>there...)
>>>
>>>It's not a bad idea to ALSO put some additional decoupling further down
>>>the feedline.
>>>
>>>If your spectrum analyzer/field strength meter is far enough away from
>>>the antenna you are testing, then it should provide a reasonable
>>>indication of relative antenna radiation performance. The SWR
>>>indication, if properly calibrated and given that you are apparently
>>>exciting the antenna with a source whose output impedance matches your
>>>feedline, should also be a good indication of power actually absorbed
>>>by the antenna. That is, lowest SWR represents maximum power absorbed
>>>by the antenna. Presumably that power is being radiated as RF, mostly,
>>>and not dissipated as heat. But where the RF radiation goes depends on
>>>the pattern of currents excited on the conductors that compose the
>>>antenna, and nearby conductors as well (such as the feedline). What
>>>you probably want is standard resonant half-wave dipole currents on
>>>your vertical dipole, and no (very little) antenna current on the
>>>feedline and on support structures. By the way, whether the antenna is
>>>resonant or not is of little real importance, so long as you can
>>>efficiently feed power to it and the antenna currents are in the right
>>>places and not the wrong places. But it happens that with your
>>>antenna, if things are working properly (properly decoupled feedline,
>>>etc), you probably will see lowest SWR at half-wave resonance. If you
>>>have no other matching going on, the lowest SWR will probably be about
>>>1.5:1 with 50 ohm feedline. You could add parts to get a better match
>>>if you wished.
>>>

>>>And as you can probably tell from all that, I'm suspecting that your
>>>decoupling sleeve, with associated dielectrics in that area, probably
>>>isn't doing a very good job...
>>>
>>>Also...Joe noted that your coax feedline may well be a length that
>>>accounts for the SWR peaks and valleys. (I think it may be about twice
>>>as long as Joe wrote...but same idea.) Do you see the peaks and
>>>valleys when you terminate the line in the precision 2:1 load? If you
>>>do NOT, then it's a further indication that the feedline has antenna
>>>currents on it, because the flat 2:1 is an indication that your
>>>transmission line is matched to the calibration impedance of the SWR
>>>bridge, and if that's the case, the SWR bridge should be giving at
>>>reasonably accurate estimate of the actual line SWR. If you DO see the
>>>SWR ripples vs frequency with just the precision load, either the load
>>>isn't "flat" or the line is not the same impedance as the SWR bridge is
>>>calibrated to, and the differing impedances is by far the most probable
>>>explanation if the line length is right.
>>>
>>>Cheers,
>>>Tom
>>>
>
>

871. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 07:53:01 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <lPydnWFqyIRD_6_eRVn-gw@comcast.com>
Source record: 70368
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Ham op wrote:

>> I hardly consider myself a fanatic, and am extremely unlike to "hammer"
>> anyone over religion, or lack there of.
>>
>> Some of the most fanatical are those members of the religion of atheism.

Yeah? When was the last time an atheist:

- rode an airplane into a building?
- killed a doctor?
- bombed a planned parenthood clinic?
- scammed people put of their money in the name of atheism?
- blew himself up, as well as dozens of innocent civilians?
- imprisoned, oppressed, tortured and murdered various minorities simply because of their religious orientation?
- attempted to introduce superstitious nonsense into the public schools' curriculum?
- withheld medical help or vaccination, genitally mutilated or otherwise endangered the life of a child on the basis of his atheism?
- attempted to impose his own brand of "morality" that denies basic freedoms, liberties and other human rights to all sorts of people?
- started a war, religious genocide or mass murder in order to promote atheism specifically?
- formed a cult that sexually abused children, financially and physically drained the followers, then convinced them to commit suicide or simply killed every cult member?
- promoted legislation, laws and even Constitution change based on cherry-picked bullshit from some scripture?
- encouraged other atheists to kill as many non-atheists as possible?
- and so on...

> Fred brings up an interesting point. Atheism IS a RELIGION!!

Sure, also war is peace, freedom is slavery, ignorance is strength.
Isn't Newspeak grand?

> I define RELIGION as a set of beliefs that influence behavior.

And I define black as white. Is today International
Pull-a-definition-out-of-your-ass Day or are we applying the Bush
administration doctrine to everyday life now?

73 ... WA7AA

872. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 10:39:33 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <kd25j157c0gn42ev50r7l6isr7dfpqgsjh@4ax.com>
Source record: 70369
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 21 Sep 2005 21:34:27 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>Hi Hans,
>
>Godel actually taught us that any system of belief, by its own rules
>of consistency must include the statement that
>
> 1 + 1 = 3
>
>Technologists would find that quite difficult to live with, some of
>the religious (if not in that same crew) would also find it difficult.
>Then there are those who would simply accept it on faith.

That's especially true when faith is blind...

873. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 10:42:51 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <bk25j1h1kdgf5lp3a082s8mr1eac8l6tf7@4ax.com>
Source record: 70370
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 03:16:14 GMT, kashe@sonic.net wrote:

>On Mon, 19 Sep 2005 22:22:10 -0400, Uncle Ted <malican40@verizon.com>
>wrote:
>
>>On Mon, 19 Sep 2005 05:41:38 GMT, kashe@sonic.net wrote:
>>
>>>>>It's bad enough that people feel a need to believe in any deities at
>>>>>all, but when you have to listen to a bunch of old men in robes half a
>>>>>world away tell you how to live your life, you're pretty screwed up.
>>>
>>> Is this a slam against our Muslim brethren? A comment on the
>>>position of Saudi Arabian women?
>>
>>Pope worshipers and Mohamahdists are all the same to me...
>
> That says more about you than about them.

Such as?

874. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 14:05:56 UTC
From: Matt <pissoff@spammers.suck.com>
Message-ID: <dgudo3$1h3g$1@otis.netspace.net.au>
Source record: 70371
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Ham op" <hamop@comcast.net> wrote in message
news:GqSdnaHbf6qHlK3eRVn-qg@comcast.com...
> Matt wrote:
>
> SNIPPED
>
> > This thread has degenerated into religious shit fighting. It has
absolutely
> > sweet fuck all to do with any of the NGs that it has been posted to- how
> > about we either revert to the original topic, close this thread down, or
> > move it to a religious discussion group where I feel that it would be
far
> > more appropriate. Please?
> >
> >
> > Matt
> >
> >
>
> Your point is valid. Your language needs serious improvement!

Fair call - guess it is an indicator of how ridiculous and off topic that
this thread has become. Religion will always be a divisive issue but it
really has no place in any of these NGs - can we please either end it or
move it elsewhere to somewhere more appropriate?

Matt

875. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 15:03:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127401610_739@spool6-east.superfeed.net>
Source record: 70372
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> Everything is blind, including faith in science.

Witness quantum physics. We must have faith that a
Buckyball can go through two slits at the same time. :-)
(Compared to other quantum particles, Buckyballs, made
from many, many carbon atoms, are rather huge.)
--
73, Cecil, http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

876. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 16:31:41 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dgum9h$l7i$1@news.service.uci.edu>
Source record: 70373

Reg Edwards wrote:
> The Zo of the Beverage is 60 * Ln(4 * Height / d) ohms, where d is
> wire diameter. When terminated its input resistance at LF is Zo (see
> the Bible, the ARRL Antenna Book). A typical value of Zo is 550 ohms.
>
> Note that radiation resistance does not enter the formula although it
> cannot be denied radiation does occur. The formula is a close
> approximation which serves present purposes.
>
> Putting two Beverages back-to-back to make a dipole we get an input
> impedance of 1100 ohms. The infinite dipole is in the same high
> impedance ballpark.
>
> To calculate Zo of an isolated infinite dipole we shall have to change
> dimensions Height above ground disappears and is replaced by
> wavelength (or frequency).
>
> Zo = 60 * (Ln(Wavelength / 2 / d) - 1) ohms, approximately.
>
> A more exact formula involves inverse hyperbolic functions and
> wavelength, height, wire length, and wire diameter, but nobody ever
> uses it. You won't find it in Terman.
>
> On the favourite American 40-meter band with a 14 AWG infinitely long
> wire Zo = 505 ohms.
>
> Which makes the dipole input impedance = 1010 ohms but a nice, round
> 1000 ohms is near enough for me.
>
> Your 'infinite shield' is a fair description for the return path but
> the end-effect is fairly large. I prefer 'the rest of the Universe'.
> But the nearest point is still the Earth's surface.
>
> I leave the people, who attempted to use Smith Charts and Eznec to
> solve the interesting problem, to fathom out where they (or the charts
> or Eznec) went wrong.
> ----
> Reg.
>
>

877. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 16:44:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3nl5j1pvjlq1g6097nna2a0u10utl6te9o@4ax.com>
Source record: 70374
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 06:39:33 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Wed, 21 Sep 2005 21:34:27 -0700, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>
>>Hi Hans,
>>
>>Godel actually taught us that any system of belief, by its own rules
>>of consistency must include the statement that
>>
>> 1 + 1 = 3
>>
>>Technologists would find that quite difficult to live with, some of
>>the religious (if not in that same crew) would also find it difficult.
>>Then there are those who would simply accept it on faith.
>
>That's especially true when faith is blind...

Well, in fact, the faith (by Godel's criteria) has nothing to do with
being blind, or by avoiding examination at all. By Godel's proof,
that broken rule of addition comes from inspection and rigorous
application of the rules. Self-contradiction is an inevitable
consequence. If you cannot accept the contradiction, then you lack
faith. Mark it up to "the Mystery."

The reason is that one cannot "know" when one is part of what is
trying to be "known." Another metaphor is that one cannot completely
describe the field, if one is standing within the field (the observer
can not see everything at once, and must be obstructing some view, if
only to be standing on it). Hence all knowledge is incomplete unless
you can withdraw into another dimension (or by stepping over the
field's fence into a greater field encompassing it).

Godel then points out that at that point of extra-dimensionality (when
you become a minor deity), you are still faced with the same problem:
you cannot possible "know" everything about the field within which you
stand, because in this new dimension you are once again obstructing
your view to some portion of it.

Math can only accurately describe a subset of experience, never its
whole. Same problem resides in all the religions without exception.
The only time Man did not have this problem was before the "Fall."

This state is what is also called Nirvana. By all accounts, Man will never walk with God again.

Of course, others may beg to differ, and suffer the consequence of explaining why they cannot explain:

1 + 1 = 3

variously heard in prayers (OK, wails of grief) as:

"Why ME?"

To confound the pious who reject science, they suffer the most from lack of faith. Evidence Lord Kelvin's statement:

"The more thoroughly I conduct scientific research, the more I believe that science excludes atheism."

The fumbling attempts to rewrite Darwin, replacing it with untelligent design, are heretical works of apostasy.

73's
Richard Clark, KB7QHC

878. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 16:51:11 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <n5o5j1546no0v7hs6bafsfnsog1f95le7j@4ax.com>
Source record: 70375

On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com>
wrote:

Sorry, All, I haven't yet learned how to paste text into the text
portion. Will try again.

Walt

879. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 16:52:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <42o5j1hr6hcohe06553lvib5epqepnjv50@4ax.com>
Source record: 70276
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 09:47:45 -0500, Matt Osborn <> wrote:

>Can you name three other people who have been responsible for as many
>untimely deaths as these three?

Hi Matt,

Adolph Hitler had the support of the church and a religious society
(need we say it was NOT the Jewish religion?). If you need two more
names (a tedious exercise with an obvious outcome) simply enter the
phrase:
"kill them all and let god sort them out"
into a search engine and wade through the 20000 links that to little
exception imply any atheistic manifesto.

73's
Richard Clark, KB7QHC

880. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 17:03:46 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <qro5j1hbdt39mmv042luc0h9rc1djndrmb@4ax.com>
Source record: 70277

On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com> wrote:
Can someone please tell me how to 'paste' a copy of text into the 'text' portion
of a new message?

Walt

881. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 17:15:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <afp5j1pe4jvlfviu5aueqtp7cd0a9ird7u@4ax.com>
Source record: 70278

On Thu, 22 Sep 2005 13:03:46 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com> wrote:
>Can someone please tell me how to 'paste' a copy of text into the 'text' portion
>of a new message?
>
>Walt

Hi Walt,

Using the mouse, hi-light the text of interest and on the keyboard
press the two keys (at the same time) <ctrl> C. This copies the text
to the clipboard. Then, in your open, new post, place the mouse
cursor where you want the quote (click the mouse to put the cursor
there). Then on the keyboard press the two keys (at the same time)
<ctrl> V. This will transfer the contents of the clipboard into the
text area.

73's
Richard Clark, KB7QHC

882. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 17:36:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127410790_915@spool6-east.superfeed.net>
Source record: 70279

Walter Maxwell wrote:
> On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com> wrote:
> Can someone please tell me how to 'paste' a copy of text into the 'text' portion
> of a new message?

Hi Walt,
Is the "copy of text" an ASCII text section or a graphic
of some sort? For graphic text, some of us use OCR software
as graphics (binaries) are not allowed on this newsgroup.
--
73, Cecil, http://www.qsl.net/w5dxp

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883. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 17:45:09 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <68r5j1duf01dbqoljc0g2srq0f6hgisqgu@4ax.com>
Source record: 70280

On Thu, 22 Sep 2005 10:15:44 -0700, Richard Clark <kb7qhc@comcast.net> wrote:

>On Thu, 22 Sep 2005 13:03:46 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com> wrote:
>>Can someone please tell me how to 'paste' a copy of text into the 'text' portion
>>of a new message?
>>
>>Walt
>
>Hi Walt,
>
>Using the mouse, hi-light the text of interest and on the keyboard
>press the two keys (at the same time) <ctrl> C. This copies the text
>to the clipboard. Then, in your open, new post, place the mouse
>cursor where you want the quote (click the mouse to put the cursor
>there). Then on the keyboard press the two keys (at the same time)
><ctrl> V. This will transfer the contents of the clipboard into the
>text area.
>
>73's
>Richard Clark, KB7QHC

Thanks, Richard, I knew how to get the text onto the clipboard, but I didn't know that ctrl V would 'paste' it into the text portion. There is no 'edit' or 'paste' button in the 'new text' screen.

Walt

884. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 17:50:26 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <2fr5j1pilq4q6qva970hq36ukisc3a6vvl@4ax.com>
Source record: 70281

On Thu, 22 Sep 2005 12:36:02 -0500, Cecil Moore <mycall@arrl.net> wrote:

>Walter Maxwell wrote:
>> On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com> wrote:
>> Can someone please tell me how to 'paste' a copy of text into the 'text' portion
>> of a new message?
>
>Hi Walt,
>Is the "copy of text" an ASCII text section or a graphic
>of some sort? For graphic text, some of us use OCR software
>as graphics (binaries) are not allowed on this newsgroup.

Hi Cecil,

My copy is ASCII, which appeared in the starting msg of this thread. I composed in Word, and my older Word programs allowed one to convert to plain text with CR at the end of each line. The 2003 ver doesn't allow that, and the lines run to 256 characters per line, which my first post on the thread did. But Richard C. just informed me how to paste when there is no 'paste' button available. I'm going to post my msg again, and we'll see whether its lines end correctly, or with 256 characters per line.

Walt

885. Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 17:51:56 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <7or5j1dkir93jfr67nh57gft0r99eul5g3@4ax.com>
Source record: 70282

As a monitoring officer with the Radio Intelligence Division (RID) of the FCC in Hawaii during WW2 I was privy to some interesting situations. Our State Department was of course aware of the operations occurring in the Pacific Theater. The people there were also aware of the propaganda being spewed by the Japanese short-wave broadcasters. But State was curious concerning what the Japanese living on the homeland were being told-were they being told the truth, or the same propaganda as told on the short-wave broadcasts, or a totally different story. State asked the RID to determine whether we could obtain such information.

We cruised the AM broadcast band and found several nighttime signals from Japanese mainland stations, but most were too weak to copy. However, JOAK, Tokyo, on 650 KHz was S9, but there was a problem in copying it. KFI, Los Angeles, was also on 650 KHz with an S9 signal-copying intelligence from JOAK was impossible. How can we eliminate, or reduce KFI's signal level. A Beverage Wave antenna, perhaps?

We then proceeded to the northern portion of Oahu and constructed a Beverage one-half mile long, five feet above ground, aimed at Tokyo, and terminated with a 1000-ohm pot resistor to ground at the Tokyo end. We discovered that by varying the pot resistance we could null the KFI signal to almost zero. The resistance terminating the Beverage that produced the null was around 600 ohms. Because the matching resistive termination rendered the Beverage a traveling-wave antenna with no standing wave, the signal from JOAK was terminated by the input of our receiver, while the signal from KFI was dissipated in the matched resistance at the Tokyo end of the Beverage-no KFI signal reflected toward the receiver. Voila-JOAK was perfectly readable for recording!

We sent the first recording to Washington, and State was delighted-requesting that we continue recording JOAK continuously. Consequently, our recordings were flown daily to Washington from Hickam Field in Honolulu. We were left in the dark concerning the information on the recordings, and how it affected the War effort, because State didn't share it with us. But it must have been pretty good, because State was on our case every day to make sure we sent them the recordings.

Walt, W2DU

886. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 18:13:20 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127413028_943@spool6-east.superfeed.net>
Source record: 70283
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> If one were to draw any conclusion, it is that the religious act
> within the framework of their well recognized beliefs while atheists
> succumb fully to hubris as they lack any counter to their own whims.

Don't know much about Ayn Rand's Objectivism, do you?
--
73, Cecil, http://www.qsl.net/w5dxp

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887. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 18:38:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eit5j11m24aroud697sfh5ldopu0hakv99@4ax.com>
Source record: 70284
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 12:54:41 -0500, Matt Osborn <> wrote:

>If one were to draw any conclusion, it is that the religious act
>within the framework of their well recognized beliefs while atheists
>succumb fully to hubris as they lack any counter to their own whims.

Hi Matt,

As so well demonstrated in the historical record, ethics and religion
are not the same thing. To say atheists lack any counter (ethics) is
also shown in the historical record to be wrong. By some accounts,
Buddhism has no god, is quite ethical, but also quite atheistic. This
could also be applied to Jainism. Unitarians hardly demand the
existence of God, the imposition of beliefs is not in their code,
whereas their ethics are guided by rational thought rather than
external authority.

73's
Richard Clark, KB7QHC

888. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 18:50:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127415283_987@spool6-east.superfeed.net>
Source record: 70285

Walter Maxwell wrote:
> My copy is ASCII, which appeared in the starting msg of this thread. I composed
> in Word, and my older Word programs allowed one to convert to plain text with CR
> at the end of each line. The 2003 ver doesn't allow that, and the lines run to
> 256 characters per line, which my first post on the thread did. But Richard C.
> just informed me how to paste when there is no 'paste' button available. I'm
> going to post my msg again, and we'll see whether its lines end correctly, or
> with 256 characters per line.

I have my browser set for screen wrap so I don't even
notice 256 characters per line. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

889. Re: Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 18:58:59 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <ngu5j1loq51o4m7bplegg0jbl5nu63ct0m@4ax.com>
Source record: 70286

Most interesting story. I suspect that this may have been the precursor to CIA's Foreign Broadcast Information Service (FIBS...pronounced by those in the trade as Fibbis). CIA has these overt monitoring posts to pick up broadcasts from a whole host of stations. These are transcribed and translated into English and put in a daily summary. They are unclassified and freely disseminated at least within government. They are quite distinct from monitoring for intelligence purposes and totally different personnel participate. The FBIS folks are often foreign nationals hired as contract workers and as such do not participate in intelligence analysis or see intelligence product (except for CIA's cleared managers.)

On a humorous note, early in my ham career about 50 years ago, there was another kind of beverage antenna. CQ magazine published a story on building a 40 meter vertical antenna by soldering end to end sufficient numbers of beer cans to reach the required 32 feet. Beer cans I guess were made of ferrous products back then (I was too young to drink at the time.) Several letters to the editor pointed out that the same thing could have been accomplished by 32 feet of aluminum tubing which of course was true. I think the same article also had an accompanying matching coil made out of semi-flexible copper tubing which the author said he straightened out prior to coiling in the appropriate size in what he described at "the time honored method." What he did was secure one end of the tubing to a vise on a workbench in his garage, secured the other end somehow (don't remember exactly how he did this) to his automobile and then straightening the tubing by slowly driving forward.

Several follow-on stories appeared following publication, most dealing with the process of acquireing the requisite number of beer cans. One author did what today we would call a blog as he tried to acquire the cans all at once by drinking the contents. As the story progressed, his written words became more and more unintelligible.

I am far too young to know about these WW II stories first hand (I was born in 1942), but I did have a long career in Signals Intelligence and I had heard some similar stories from my earliest supervisors, most of whom were WW II veterans.

Thanks for sharing this with us.

Jon W3JT

On Thu, 22 Sep 2005 13:51:56 -0400, Walter Maxwell <walt@w2du.com> wrote:

> As a monitoring officer with the Radio Intelligence Division (RID) of the
>FCC in Hawaii during WW2 I was privy to some interesting situations. Our State
>Department was of course aware of the operations occurring in the Pacific
>Theater. The people there were also aware of the propaganda being spewed by the
>Japanese short-wave broadcasters. But State was curious concerning what the
>Japanese living on the homeland were being told-were they being told the truth,
>or the same propaganda as told on the short-wave broadcasts, or a totally
>different story. State asked the RID to determine whether we could obtain such
>information.
> We cruised the AM broadcast band and found several nighttime signals from
>Japanese mainland stations, but most were too weak to copy. However, JOAK,
>Tokyo, on 650 KHz was S9, but there was a problem in copying it. KFI, Los
>Angeles, was also on 650 KHz with an S9 signal-copying intelligence from JOAK
>was impossible. How can we eliminate, or reduce KFI's signal level. A Beverage
>Wave antenna, perhaps?
> We then proceeded to the northern portion of Oahu and constructed a
>Beverage one-half mile long, five feet above ground, aimed at Tokyo, and
>terminated with a 1000-ohm pot resistor to ground at the Tokyo end. We
>discovered that by varying the pot resistance we could null the KFI signal to
>almost zero. The resistance terminating the Beverage that produced the null was
>around 600 ohms. Because the matching resistive termination rendered the
>Beverage a traveling-wave antenna with no standing wave, the signal from JOAK
>was terminated by the input of our receiver, while the signal from KFI was
>dissipated in the matched resistance at the Tokyo end of the Beverage-no KFI
>signal reflected toward the receiver. Voila-JOAK was perfectly readable for
>recording!
> We sent the first recording to Washington, and State was
>delighted-requesting that we continue recording JOAK continuously. Consequently,
>our recordings were flown daily to Washington from Hickam Field in Honolulu. We
>were left in the dark concerning the information on the recordings, and how it
>affected the War effort, because State didn't share it with us. But it must have
>been pretty good, because State was on our case every day to make sure we sent
>them the recordings.
>
>Walt, W2DU

890. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 19:44:42 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dgv1jaush1@engnntp2.cig.mot.com>
Source record: 70288

"Jerry Martes" <j.jmartes@verizon.net> wrote in message
news:b%NWe.1010$9a2.584@trnddc04...
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:24625-432A4483-301@storefull-3253.bay.webtv.net...
> > Cecil, W5DXP wrote:
> > "The 180 deg. phase reversing coil is the tricky part."
> >
> > For UHF, you might prefer to use a 1/4-wave short-circuited stub in
> > place of a coil to reverse the phase. My 19th edition of the ARRL
> > Antenna Book shows such an antenna, "the super J-pole on page 16-25. At
> > other frequencies, this might be called a "Franklin Antenna". It`s a
> > 1/2-wave in-phase with another 1/2-wave, one mounted directly over the
> > other.> > Best regards, Richard Harrison, KB5WZZI
>
> Richard

Two half waves in phase, colinear. The 1/4 wave shorted "stub" is perhaps
the easiest way to get a 'good" 180 degree shift to get the segments in
phase. Used from early antenna design times...
73, Steve, K9DCI

891. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 19:58:56 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dgv2e0$v20$1@engnntp2.cig.mot.com>
Source record: 70290

Roy,
I'd appreciate your further comment on this. I 'know', from history,
that the spacing of two collinear half waves in phase affects the gain and
that there is an optimum spacing for gain that places the two collinear
elements apart (not close enough for a 1/4 wave shorted stub to be used for
a common feed). I had theorized that this "optimum" spacing results in the
most compressed lobe (without excessive secondary lobe formation) which is
simply due to the far-field phase summation of the two elements radiation.
Is this different than the mutual coupling to which you refer, or is this
another effect?

73, Steve, K;9.D,C'I

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11ioskhlhnsrl9b@corp.supernews.com...
> Jerry Martes wrote:
> >
> > I'd have expected the "gain" to be closer to 4 1/2 db over the 1/4
wave
> > stub over a ground. is it easy to show where i've missed something?
> >
>
> I think it should be more like 3 dB, but hadn't said anything until I
> had a chance to model it. ...
> Roy Lewallen, W7EL

892. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 20:02:51 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1127419371.759512.259150@g44g2000cwa.googlegroups.com>
Source record: 70287

You should probably have a look at http://users.adelphia.net/~n2pk/. Paul has done a nice job on a vector network analyzer project, with some good additions from others, and you can probably pick up quite a few nice ideas from that design, maybe even use a lot of it.

The single parallel strip really does pick up both forward and reflected, and if you can terminate it properly at both ends (especially the forward end) so that the load there does not reflect back down that line segment, you can sense both forward and reflected on the single parallel strip. Making the load really be 50 ohms isn't easy when it also has to be a detector, though, so two strips may make more sense for you. It should work fine to have them just be symmetrical, one on either side of the main line.

If you really care about phase detection, be aware of the phase shifts through line segments. Such couplers are sometimes called quadrature hybrids. The sampled forward output will be in phase with the applied input, but the through-line output will be delayed 90 degrees (a quarter wave in the transmission line, obviously). The sampled reflected output will be in-phase with the reflected that arrives at the through-line load port--by symmetry. But that means you'd measure a 90 degree phase difference between the forward and reflected, for a case where they were in phase at the through-line output port. Hope I have that all correct...if not someone will probably jump in and correct it. It should be easy to calibrate out. Since the phase shifts are frequency-dependent, if you want to cover much of a percentage frequency range, be prepared to handle frequency-dependent calibration. The coupler goes out of quadrature, and you probably won't have exactly the same length lines from each coupler to the detector.

Since the parts are really pretty cheap and replicating PC boards is straightforward, you might think about the advantages of NOT having to disconnect things, and the expense of putting good RF connectors on the coupler, and maybe just build the detector into the coupler, and make a separate one for other uses. A couple good SMAs and the hassles of connecting and disconnecting a few times should pay for just buying another $20 part. Half a tank of gas these days, huh?

Cheers,
Tom

893. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 20:42:05 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <goudnQgsM_nFiq7eRVn-1A@comcast.com>
Source record: 70289

If you are WINDOWS based:

1) Highlight text in original message
2) Edit Key: select COPY option, Click mouse
This puts the desired text on your 'clipboard'
3) Open NEW MESSAGE
4) Put cursor in 'text' block [as opposed to Address or Subject]
5) Edit Key: select PASTE option, Click Mouse.

If you are MAC based you need info from another source

Walter Maxwell wrote:

> On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com> wrote:
> Can someone please tell me how to 'paste' a copy of text into the 'text' portion
> of a new message?
>
> Walt
>

894. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 20:50:11 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <nh56j19sc8hf73trtllarrg5jgkfikodcv@4ax.com>
Source record: 70291
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 09:43:59 -0500, Matt Osborn <> wrote:

>
>Everything is blind, including faith in science. Until we know
>everything there is to know, all of our knowledge is contained within
>a black box, outside of which we know nothing; like the Titanic just
>before the iceberg.

Science has nothing to do with faith because the essence of science is
to continually ask questions, and explore new possibilities. IOW,
science is readily open to change, and will admit it's mistakes if
close examination of evidence reveals such things to be so. OTOH,
faith is rigid, and is not subject to any change among those with
"true believer syndrome." Faith, especially blind faith, expects one
to believe without asking any questions, and just accepting things as
they are presented.

895. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 21:48:24 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <gh96j1l3s010sk3jkh5o0s46bhcpmltrij@4ax.com>
Source record: 70292

Thanks, ham op, for the info. However, 'Agent' has no 'edit' key, and no 'paste'
option, hence the reason for my question. However, Richard C. kindly told me
that using <cont> v does the pasting job.

Walt

On Thu, 22 Sep 2005 16:42:05 -0400, Ham op <hamop@comcast.net> wrote:

>If you are WINDOWS based:
>
>1) Highlight text in original message
>2) Edit Key: select COPY option, Click mouse
> This puts the desired text on your 'clipboard'
>3) Open NEW MESSAGE
>4) Put cursor in 'text' block [as opposed to Address or Subject]
>5) Edit Key: select PASTE option, Click Mouse.
>
>If you are MAC based you need info from another source
>
>
>Walter Maxwell wrote:
>
>> On Thu, 22 Sep 2005 12:47:48 -0400, Walter Maxwell <walt@w2du.com> wrote:
>> Can someone please tell me how to 'paste' a copy of text into the 'text' portion
>> of a new message?
>>
>> Walt
>>

896. Re: Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 21:55:19 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <8q96j1hr5a0l9gl7skacog57ao9t0riau3@4ax.com>
Source record: 70293

Jon, I'm pleased that you found my story of interest. I have just put together another war story that I may post tomorrow. It concerns how the FCC saved thousands of military personnel and more than 600 aircraft from ditching in the sea between the mainland and Hawaii during WW2.

And yes, Jon, I remember the beer can article. A cute one, to say the least.

Walt

On Thu, 22 Sep 2005 14:58:59 -0400, J. Teske <jdteske@comcast.net> wrote:

>Most interesting story. I suspect that this may have been the
>precursor to CIA's Foreign Broadcast Information Service
>(FIBS...pronounced by those in the trade as Fibbis). CIA has these
>overt monitoring posts to pick up broadcasts from a whole host of
>stations. These are transcribed and translated into English and put in
>a daily summary. They are unclassified and freely disseminated at
>least within government. They are quite distinct from monitoring for
>intelligence purposes and totally different personnel participate. The
>FBIS folks are often foreign nationals hired as contract workers and
>as such do not participate in intelligence analysis or see
>intelligence product (except for CIA's cleared managers.)
>
>On a humorous note, early in my ham career about 50 years ago, there
>was another kind of beverage antenna. CQ magazine published a story on
>building a 40 meter vertical antenna by soldering end to end
>sufficient numbers of beer cans to reach the required 32 feet. Beer
>cans I guess were made of ferrous products back then (I was too young
>to drink at the time.) Several letters to the editor pointed out that
>the same thing could have been accomplished by 32 feet of aluminum
>tubing which of course was true. I think the same article also had an
>accompanying matching coil made out of semi-flexible copper tubing
>which the author said he straightened out prior to coiling in the
>appropriate size in what he described at "the time honored method."
>What he did was secure one end of the tubing to a vise on a workbench
>in his garage, secured the other end somehow (don't remember exactly
>how he did this) to his automobile and then straightening the tubing
>by slowly driving forward.
>
>Several follow-on stories appeared following publication, most dealing
>with the process of acquireing the requisite number of beer cans. One
>author did what today we would call a blog as he tried to acquire the
>cans all at once by drinking the contents. As the story progressed,
>his written words became more and more unintelligible.
>

>I am far too young to know about these WW II stories first hand (I was
>born in 1942), but I did have a long career in Signals Intelligence
>and I had heard some similar stories from my earliest supervisors,
>most of whom were WW II veterans.
>
>Thanks for sharing this with us.
>
>Jon W3JT

897. Re: Open Stub fed J antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 22:28:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11j6c04j1570k74@corp.supernews.com>
Source record: 70294

Steve Nosko wrote:
> Roy,
> I'd appreciate your further comment on this. I 'know', from history,
> that the spacing of two collinear half waves in phase affects the gain and
> that there is an optimum spacing for gain that places the two collinear
> elements apart (not close enough for a 1/4 wave shorted stub to be used for
> a common feed). I had theorized that this "optimum" spacing results in the
> most compressed lobe (without excessive secondary lobe formation) which is
> simply due to the far-field phase summation of the two elements radiation.
> Is this different than the mutual coupling to which you refer, or is this
> another effect?
>
> 73, Steve, K;9.D,C'I

It's actually the same effect.

If we assume no loss (a reasonable assumption for this kind of antenna), all the power applied to the antenna is radiated. So any change in gain is accompanied by a change in pattern -- if there's a single major lobe, the more gain you have the narrower the lobe is. But if the element currents are in phase, there will always be a maximum broadside to the array regardless of the spacing, because the fields from the elements will always add in phase in that direction.

But why is the gain different for different element spacings? You get different gains for different spacings, which means that the sum of the fields changes as you change spacing -- and this means that the field from each element changes as you change the spacing. If you put 100 watts into the array, each element will radiate 50 watts, again regardless of the spacing. So why does the 50 watts produce a larger or smaller field broadside to the array as you change the spacing? What's happening?

As the spacing changes, the mutual coupling between elements changes. This alters the feedpoint resistances (and reactances, which aren't important to this discussion) of the elements. And this in turn modifies the amount of current flowing on each element for that 50 watts of applied power. (It can be more reasonably argued that the mutual coupling changes the current, and that changes the resistance. Or that the mutual coupling produces a feedpoint voltage which alters the current and resistance. But you reach the same conclusion via any of those paths.) The essential fact is that the field gets stronger or weaker as the element current increases or decreases as a result of mutual coupling. The combination of the changed pattern shape due to spacing and the changed maximum pattern size due to mutual coupling

always result in all 100 watts being radiated.

Chapter 8 of the ARRL Antenna Book has a graph of gain vs spacing for two half wave elements placed end-to-end, compared to a single half wave element. The gain peaks at about 3.2 dB at a spacing of about a half wavelength. When the elements are very close, as they are in the super J-pole, the gain is only about 1.6 dB greater than a dipole. That's why I felt the J-pole gain wouldn't be as high as claimed.

Note: The current distribution on the elements also changes as a result of mutual coupling -- see http://eznec.com/Amateur/Articles/Current_Dist.pdf. But I don't believe the effect is very significant on a collinear array with thin elements. Anyone wanting to find out for sure, though, can do so with EZNEC or a similar program.

Roy Lewallen, W7EL

898. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 22:44:46 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <ytGYe.1448$xc4.932@newssvr13.news.prodigy.com>
Source record: 70295

Walt- once you have the item "Pasted", you can edit that "Pasted copy", simply by single clicking anywhere in the sentence(s), and then type a (space-bar, comma, period, or if editing the text, the letters, over the highlighted area. IT is possible to thusly, edit lines, correct sentences, contract the length of lines, ect. Hope this info helps--
Jim NN7K

Cecil Moore wrote:
> Walter Maxwell wrote:
>
>> My copy is ASCII, which appeared in the starting msg of this thread. I
>> composed
>> in Word, and my older Word programs allowed one to convert to plain
>> text with CR
>> at the end of each line. The 2003 ver doesn't allow that, and the
>> lines run to
>> 256 characters per line, which my first post on the thread did. But
>> Richard C.
>> just informed me how to paste when there is no 'paste' button
>> available. I'm
>> going to post my msg again, and we'll see whether its lines end
>> correctly, or
>> with 256 characters per line.
>
>
> I have my browser set for screen wrap so I don't even
> notice 256 characters per line. :-)

899. Re: Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 22:47:53 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndj6d4p.2qvl.bit-bucket@shell.config.com>
Source record: 70296

On Thu, 22 Sep 2005 14:58:59 -0400, J Teske wrote:
....
> What he did was secure one end of the tubing to a vise on a workbench
> in his garage, secured the other end somehow (don't remember exactly
> how he did this) to his automobile and then straightening the tubing
> by slowly driving forward.

Probably by clamping it to the bumper! Back in those days we had 'real'
bumpers -- Made In America _and_ made out of steel. As well, the dash
'board' was made out of steel.

Back on topic: Great Story(s).

73
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

900. Re: How do you find antenna resonance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 23:05:23 UTC
From: David <groups@orbitcoms.com>
Message-ID: <TMGYe.10236$0E5.10039@news-server.bigpond.net.au>
Source record: 70297

Tom,

Thanks for the link. This unit only goes to 60MHz so needs a lot of mod
to get it up to 900MHz where I am working.

I have found this one that does go up there
http://www.geocities.com/robert_lacoste/previous_designs.htm

Some of the parts used in his design are getting difficult to obtain so
I am thinking of replacing the Cypress device and prescaler for a
LMX1600 PLL and driving the generator ramp via a PIC micro controller
instead. The VCOs, Splitters and Amp are all still available.

Before I start on this project I will make a manually adjustable version
(The directional couplers will not be redundant)

The reason the detector head is a separate item is that this will be
inside a small shielded area inside the main box that also has the micro
controller, LCD display, keypad and serial port.

Then I can simply swap the 900MHz coupler for the 433MHz coupler to
change bands.

I have completed the artwork for the Bi_Directional coupler and will
make the PCB today. Using RFsim99 I was able to play with combination of
track widths and gape between mainline and coupled lines to get the 20dB
coupling and 50 Ohms.

K7ITM wrote:
> You should probably have a look at http://users.adelphia.net/~n2pk/.
> Paul has done a nice job on a vector network analyzer project, with
> some good additions from others, and you can probably pick up quite a
> few nice ideas from that design, maybe even use a lot of it.
>
> The single parallel strip really does pick up both forward and
> reflected, and if you can terminate it properly at both ends
> (especially the forward end) so that the load there does not reflect
> back down that line segment, you can sense both forward and reflected
> on the single parallel strip. Making the load really be 50 ohms isn't
> easy when it also has to be a detector, though, so two strips may make
> more sense for you. It should work fine to have them just be
> symmetrical, one on either side of the main line.
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> If you really care about phase detection, be aware of the phase shifts
> through line segments. Such couplers are sometimes called quadrature
> hybrids. The sampled forward output will be in phase with the applied
> input, but the through-line output will be delayed 90 degrees (a

> quarter wave in the transmission line, obviously). The sampled
> reflected output will be in-phase with the reflected that arrives at
> the through-line load port--by symmetry. But that means you'd measure
> a 90 degree phase difference between the forward and reflected, for a
> case where they were in phase at the through-line output port. Hope I
> have that all correct...if not someone will probably jump in and
> correct it. It should be easy to calibrate out. Since the phase
> shifts are frequency-dependent, if you want to cover much of a
> percentage frequency range, be prepared to handle frequency-dependent
> calibration. The coupler goes out of quadrature, and you probably
> won't have exactly the same length lines from each coupler to the
> detector.
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> Since the parts are really pretty cheap and replicating PC boards is
> straightforward, you might think about the advantages of NOT having to
> disconnect things, and the expense of putting good RF connectors on the
> coupler, and maybe just build the detector into the coupler, and make a
> separate one for other uses. A couple good SMAs and the hassles of
> connecting and disconnecting a few times should pay for just buying
> another $20 part. Half a tank of gas these days, huh?
>
> Cheers,
> Tom
>

901. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-22 23:45:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9uf6j1li5rgavm24ga5ru0qnckk4kssc20@4ax.com>
Source record: 70298
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 17:15:16 -0500, Matt Osborn <> wrote:

>By definition, anyone who has a system of beliefs cannot consider
>himself to be an atheist.
necessarily contradicts:
>Most often, the atheist will insist on science or common sense as his
>moral foundation.

Hi Matt,

This looks like a homogenous world point of view, where those who are
____, are not; and those who are not ____, are. A circularity that
fails in science, but certainly has served religion through the ages.

Consider the enigma of:
>Sociopaths may be the only true atheists;
is a mechanistic approach to morality, which is amoral.
>the rest are simply uninformed of their own dogma.
And to distinguish them from the informed (and not simply those who
disagree):
"kill them all and let god sort them out."

Hmmm, that's how we got here.

73's
Richard Clark, KB7QHC

902. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 00:04:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eug6j1hgqreqsk1avrtjhvflihn79nvvc2@4ax.com>
Source record: 70299

On Thu, 22 Sep 2005 17:48:24 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>Thanks, ham op, for the info. However, 'Agent' has no 'edit' key, and no 'paste'
>option, hence the reason for my question.

Hi Walt,

In fact Agent does have these buttons, you simply haven't customized
your tool bar to display them:

Menu item: Tools, select Options Dialog, then Navigation and Menus
Panel, finally Toolbars. This presentation allows you to customize
all the buttons.

In the composition window (where you write your posts) there are three
paste buttons available.

You are running on version 1.93. According to Forte:
If you are a registered Agent 2.0 user or you bought Agent 1.93 on or
after December 9th, 2003, you don't need to purchase an upgrade. Just
download and install Agent 3.1

There are new features, but you may not appreciate them if you simply
use Agent out-of-the-box.

73's
Richard Clark, KB7QHC

903. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 01:01:10 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <bMqdnYI2tI1Lzq7eRVn-pQ@adelphia.com>
Source record: 70300
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

> If one were to draw any conclusion, it is that the religious act
> within the framework of their well recognized beliefs while atheists
> succumb fully to hubris as they lack any counter to their own whims.
>
> I do not deny that both are fallible, however, history demonstrates
> that the religious, despite their failures, have improved the human
> condition immeasurably where atheists have been only a blight upon
> civilization.

Matt, I suspect you get your news (and history) from the 700 Club.

- Mike KB3EIA -

904. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 01:04:14 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <bMqdnb02tI0Tya7eRVn-pQ@adelphia.com>
Source record: 70301
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> On Thu, 22 Sep 2005 16:50:11 -0400, Uncle Ted <malican40@verizon.com>
> wrote:
>
>
>>On Thu, 22 Sep 2005 09:43:59 -0500, Matt Osborn <> wrote:
>>
>>
>>
>>>Everything is blind, including faith in science. Until we know
>>>everything there is to know, all of our knowledge is contained within
>>>a black box, outside of which we know nothing; like the Titanic just
>>>before the iceberg.
>>
>>Science has nothing to do with faith because the essence of science is
>>to continually ask questions, and explore new possibilities. IOW,
>>science is readily open to change, and will admit it's mistakes if
>>close examination of evidence reveals such things to be so. OTOH,
>>faith is rigid, and is not subject to any change among those with
>>"true believer syndrome." Faith, especially blind faith, expects one
>>to believe without asking any questions, and just accepting things as
>>they are presented.
>
>
> Faith has nothing to do with science? Does this mean you can explain
> gravity?

Once upon a time, we didn't know the nature of light, or lots of other
things. And some people used your same argument.

May I suggest that without faith, there is no science. Most
> scientists who have achieved the age of 50 come to realize just how
> much faith science requires.

Matt, you are simply incorrect.

- Mike KB3EIA -

905. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 01:15:44 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <5MCdndjOZ8fdyq7eRVn-iA@adelphia.com>
Source record: 70302
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> On Thu, 22 Sep 2005 11:38:31 -0700, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>
>>On Thu, 22 Sep 2005 12:54:41 -0500, Matt Osborn <> wrote:
>>
>>
>>>If one were to draw any conclusion, it is that the religious act
>>>within the framework of their well recognized beliefs while atheists
>>>succumb fully to hubris as they lack any counter to their own whims.
>>
>>Hi Matt,
>>
>>As so well demonstrated in the historical record, ethics and religion
>>are not the same thing. To say atheists lack any counter (ethics) is
>>also shown in the historical record to be wrong. By some accounts,
>>Buddhism has no god, is quite ethical, but also quite atheistic. This
>>could also be applied to Jainism. Unitarians hardly demand the
>>existence of God, the imposition of beliefs is not in their code,
>>whereas their ethics are guided by rational thought rather than
>>external authority.
>
>
> By definition, anyone who has a system of beliefs cannot consider
> himself to be an atheist.

Are you serious? You sound like the preacher who said that atheists
with morals are hypocrites.

Such a person may not agree with any known
> (to himself) religious dogma, nevertheless, he does at the very least,
> possess a religious dogma of his own making.
>
> Since, according to the OED, ethics is the science of morals; the
> study of the principles of human duty, there must exist some basis
> upon which human duty is based.
>
> We cannot at the same time, argue that we do not believe and yet
> insist that we have a basis for moral behavior. Such contradictions
> are the basis for insanity if they are consciously held.
>
> Most often, the atheist will insist on science or common sense as his

> moral foundation. That the world is a better place if he helps his
> neighbor, etc. Of course, this simply denies (usually unconsciously)
> his belief in the religious dogma of his milieu.
>
> Sociopaths may be the only true atheists; the rest are simply
> uninformed of their own dogma. Most of the latter have constructed a
> 'straw man' that they see as G-d. They then proceed to demolish their
> creation and then rest convinced of their independent thought.

Hey, if that helps you sleep at night, go for it! 8^)

- Mike KB3EIA -

906. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 01:43:39 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <52n6j1ltspei2qc17vnhelkaccvsvuolfr@4ax.com>
Source record: 70303
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 09:47:45 -0500, Matt Osborn <> wrote:

>Ever hear of Stalin? Lenin? Mao?
>
>Can you name three other people who have been responsible for as many
>untimely deaths as these three?

Just about every Roman Catholic pope that served from about 300 to
1600 C.E. I don't know their names, but I'm pretty sure there were
more than three during that time period...

907. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:22:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127442287_4677@spool6-east.superfeed.net>
Source record: 70304
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> Not really. I'm still waiting for an atheist to explain how it is
> that he can have a moral point of view and not have a religious dogma.

You really need to study Ayn Rand's take on Objectivist ethics.
The objective thing to do is to grant to everyone the rights
that you require for yourself, no matter what you believe. It
bears a close resemblence to the golden rule.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

908. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:28:39 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <l7p6j1ptejb8r8iig6huqf5blkmeu25bis@4ax.com>
Source record: 70306
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 16:29:09 -0500, Matt Osborn <> wrote:

>Faith has nothing to do with science? Does this mean you can explain
>gravity?

Yes. When I sit down in my chair at my computer, I have a fair amount
of certainty that my fat ass won't end up on the floor due to the
chair suddenly breaking. Now, you can call that faith if you want, but
it is certainly far from the BLIND faith that religionists spew on
about every day across the shortwave bands.

>May I suggest that without faith, there is no science. Most
>scientists who have achieved the age of 50 come to realize just how
>much faith science requires.

...which only shows that even an intelligent and well-read person can
fall for stuff that passes as science if that have no critical
thinking abilities.

909. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:34:01 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <c5q6j151m4gl4ia7feqjhoudnlc9qotrn4@4ax.com>
Source record: 70307
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 17:15:16 -0500, Matt Osborn <> wrote:

>By definition, anyone who has a system of beliefs cannot consider
>himself to be an atheist. Such a person may not agree with any known
>(to himself) religious dogma, nevertheless, he does at the very least,
>possess a religious dogma of his own making.

If not an atheist, what do *you* call a person that doesn't believe in
some big sky fairy called "God", or that some Jew-on-a-stick died and
came back to life some two thousand years ago, or any other deity for
that matter?

910. Re: Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:36:35 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11j6qhk668g86a1@corp.supernews.com>
Source record: 70305

I was born in '59, so I didn't know any of this. Very interesting. Thanks for posting it.

Rod KI7CQ

911. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:37:02 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <sdq6j1d85g137idvkebqmdrk7kqev2houf@4ax.com>
Source record: 70308
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 21:15:44 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

>>
>>
>> By definition, anyone who has a system of beliefs cannot consider
>> himself to be an atheist.
>
> Are you serious? You sound like the preacher who said that atheists
>with morals are hypocrites.
>
>

Those preachers don't believe anyone can be moral without bowing down
to their so-called kind, loving "Christian" god that threatens people
with eternal torture after they die if they don't kiss their god's
ass.

912. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:52:54 UTC
From: Mike <meclsisin@mail.ircsd.org>
Message-ID: <4333704c@news.usenetzone.com>
Source record: 70309
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna

This is way off-topic. It has been asked to be moved to a more
appropriate newsgroup. Please take it out of these groups or converse by
e-mail.

"Uncle Ted" <malican40@verizon.com> wrote in message
news:l7p6j1ptejb8r8iig6huqf5blkmeu25bis@4ax.com...
> On Thu, 22 Sep 2005 16:29:09 -0500, Matt Osborn <> wrote:
>
>
>>Faith has nothing to do with science? Does this mean you can explain
>>gravity?
>
> Yes. When I sit down in my chair at my computer, I have a fair amount
> of certainty that my fat ass won't end up on the floor due to the
> chair suddenly breaking. Now, you can call that faith if you want, but
> it is certainly far from the BLIND faith that religionists spew on
> about every day across the shortwave bands.
>
>>May I suggest that without faith, there is no science. Most
>>scientists who have achieved the age of 50 come to realize just how
>>much faith science requires.
>
> ...which only shows that even an intelligent and well-read person can
> fall for stuff that passes as science if that have no critical
> thinking abilities.

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913. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:53:29 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43336e29$0$22206$39cecf19@news.twtelecom.net>
Source record: 70310
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>
>
> A few thousand compared to 50 million?
>

Well that certainly makes it ok. You mean you aren't an absolutist?

tom
K0TAR

914. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 02:59:36 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43336f99$0$32203$39cecf19@news.twtelecom.net>
Source record: 70311
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:

> Matt Osborn wrote:
>
>>
>>
>> A few thousand compared to 50 million?
>>
>
> Well that certainly makes it ok. You mean you aren't an absolutist?
>
> tom
> K0TAR
>

The difference between me and you is that I know it's always wrong, and
you seem to have left an opening for your "religion" to do evil things
becuase your morality says it's ok.

I'm sorry that you can't understand that an atheist can have morals not
tied to superstition, but to to true right and wrong.

tom
K0TAR

915. Re: Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:10:17 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <0es6j19ipv54bav4p7ln49v8ej79893crc@4ax.com>
Source record: 70313

On Thu, 22 Sep 2005 19:36:35 -0700, "Rod Maupin" <gridman@ywave.com> wrote:

>I was born in '59, so I didn't know any of this. Very interesting. Thanks
>for posting it.
>
>Rod KI7CQ
>
Glad you guys find my posting of interest, and since you do, I'll have a coupla more coming.

Walt, W2DU

916. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:10:24 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <AmKYe.2204$oc.999@newsread2.news.pas.earthlink.net>
Source record: 70312
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<Matt Osborn> wrote

>
> By definition, anyone who has a system of beliefs cannot consider
> himself to be an atheist.
>

"Everyone has to believe in something."

I guess I'll believe in Bokonon.

In Cat's Cradle, Kurt Vonnegut, Jr., created a new religion, Bokononism. The holy scripture of Bokononism was "Books of Bokonon", written by a spurious holy man named Bokonon as a way to distract the people of San Lorenzo from their pitiful lives.

What is sacred to Bokononists? Not god; just one thing: man.

Here, to set the tone, are the opening verses of Book One of Bokonon

Verse 1: All of the true things that I am about to tell you are shameless lies.

Verses 2-4: In the beginning, God created the earth, and he looked upon it in His cosmic loneliness.

And God said, "Let Us make living creatures out of mud, so the mud can see what We have done." And God created every living creature that now moveth, and one was man. Mud as man alone could speak. God leaned close as mud as man sat up, looked around, and spoke. Man blinked. "What is the purpose of all this?" he asked politely.

"Everything must have a purpose?" asked God.

"Certainly," said man.

"Then I leave it to you to think of one for all this," said God.

And He went away

917. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:13:50 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <z6mdnS5fn71y767eRVn-gg@comcast.com>
Source record: 70314
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>>>I hardly consider myself a fanatic, and am extremely unlike to "hammer"
>>>>anyone over religion, or lack there of.
>>>>
>>>>Some of the most fanatical are those members of the religion of atheism.
>>
>>Yeah? When was the last time an atheist:
>
>
> Ever hear of Stalin? Lenin? Mao?
>
> Can you name three other people who have been responsible for as many
> untimely deaths as these three?

This tired old argument???

First of all I notice that you haven't addressed any of the specific
examples I gave about *theists* and their religious crimes.
Second, all of the examples I gave are about theists committing crimes
against humanity precisely *because* of their religion, directly and
indirectly.
As far as "Stalin, Lenin and Mao" are concerned, their crimes were most
certainly not committed in order to promote atheism, unless that atheism
was a vehicle for establishing communism, which btw, is de facto a form
of religion. Religion was not outlawed in the USSR and priests were
being prosecuted no more than the rest of the society. Communism and
theism can co-exist and did successfully in most communist countries.
Besides, Stalin spent years in a seminary. Some atheist.
One could just as successfully argue that since "Stalin, Lenin and Mao"
committed crimes and they all ate bread, then by your logic people who
eat bread are murderers.

918. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:14:29 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <uks6j1d9uu5tnq73pgd6ddc7kabsvfvvim@4ax.com>
Source record: 70317
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 21:39:00 -0500, Matt Osborn <> wrote:

>On Thu, 22 Sep 2005 21:43:39 -0400, Uncle Ted <malican40@verizon.com>
>wrote:
>
>>On Thu, 22 Sep 2005 09:47:45 -0500, Matt Osborn <> wrote:
>>
>>
>>>Ever hear of Stalin? Lenin? Mao?
>>>
>>>Can you name three other people who have been responsible for as many
>>>untimely deaths as these three?
>>
>>Just about every Roman Catholic pope that served from about 300 to
>>1600 C.E. I don't know their names, but I'm pretty sure there were
>>more than three during that time period...
>>
>
>A few thousand compared to 50 million?

Hardly, but I don't think we'll ever know how many millions have been
slaughtered by the RCC during the time period I mentioned.

919. Re: Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:21:24 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <40t6j1hra9lhttbdp38hrd7u0r0hcbmplr@4ax.com>
Source record: 70315

On Thu, 22 Sep 2005 23:10:17 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>On Thu, 22 Sep 2005 19:36:35 -0700, "Rod Maupin" <gridman@ywave.com> wrote:
>
>>I was born in '59, so I didn't know any of this. Very interesting. Thanks
>>for posting it.
>>
>>Rod KI7CQ
>>
>Glad you guys find my posting of interest, and since you do, I'll have a coupla
>more coming.
>
>Walt, W2DU

I have no experience with Beverage antennas, but 4000 miles for what
had to be a not very powerful Japanese station at 650 khz sounds
pretty good.

Bob
k5qwg

920. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:28:58 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Bd-dnfOQuoLh667eRVn-jg@comcast.com>
Source record: 70316
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

> In all cases, they believe and act according to their beliefs. That
> the atheists fall prey to their unrecognized beliefs cannot be
> disputed.

And this is because you say so?

> I do not deny that both are fallible, however, history demonstrates
> that the religious, despite their failures, have improved the human
> condition immeasurably where atheists have been only a blight upon
> civilization.

??? You have got to be kidding? What has religion possibly done for
anyone except provided false hope while stealing their money?

Stifling science (from Galileo to stem cells), witch burning, condoning
slavery, religious genocide on unprecedented scale, eradicating whole
civilizations, oppressing women, condoning fascism and
national-socialism, suppressing human rights for minorities, huge waste
of resources that could be better spent elsewhere, contributing to
millions of dead from AIDS by banning contraceptives, flaming national
and religious intolerance from Ireland to Palestine, and I could go on
forever...

As for your "blight" comment, a majority of scientists are atheists, for
example. The percentage increases with education. That's education *not*
Kansas style.

73 ... WA7AA

921. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:32:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <67t6j19lltlhrl1ur122grd9ksf7sbru4e@4ax.com>
Source record: 70318
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 19:56:39 -0500, Matt Osborn <> wrote:

>On Thu, 22 Sep 2005 16:45:46 -0700, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>On Thu, 22 Sep 2005 17:15:16 -0500, Matt Osborn <> wrote:
>>
>>>By definition, anyone who has a system of beliefs cannot consider
>>>himself to be an atheist.
>>necessarily contradicts:
>>>Most often, the atheist will insist on science or common sense as his
>>>moral foundation.
>
>The contradiction lies with those who believe themselves atheists, not
>with those who point out the contradiction.

Hi Matt,

Well, in fact the contradiction originated with your statements. No
one else theist/atheist posited them. As to what is "believed" by
anyone, that is a speculation when it is expressed by a third party,
you about "them" (whomever they may be).

>I'm still waiting for an atheist to explain how it is
>that he can have a moral point of view and not have a religious dogma.

Unfortunately, you've presented yourself as being the arbiter of who
is an atheist, and denying that classification of them by your own
test. This is self-fulfilling prophesy.

73's
Richard Clark, KB7QHC

922. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 03:36:22 UTC
From: Charlie <charlie@play.com>
Message-ID: <11j6u1tnov2fpf8@news.supernews.com>
Source record: 70319
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Ted these guys don't know......

If they aren't on some sin ridden guilt trip they are "free from sin" by
papal absolution...you know..the same way those pedophile priests were all
"forgiven" for butt-fucking little children. Ain't it great??

--

Charlie

"Uncle Ted" <malican40@verizon.com> wrote in message
news:c5q6j151m4gl4ia7feqjhoudnlc9qotrn4@4ax.com...
> On Thu, 22 Sep 2005 17:15:16 -0500, Matt Osborn <> wrote:
>
>
>>By definition, anyone who has a system of beliefs cannot consider
>>himself to be an atheist. Such a person may not agree with any known
>>(to himself) religious dogma, nevertheless, he does at the very least,
>>possess a religious dogma of his own making.
>
>
> If not an atheist, what do *you* call a person that doesn't believe in
> some big sky fairy called "God", or that some Jew-on-a-stick died and
> came back to life some two thousand years ago, or any other deity for
> that matter?

923. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 04:01:14 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <e6LYe.132420$Hx4.14048@twister.nyroc.rr.com>
Source record: 70320
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Boy, Charlie, I bet you didn't expect your posting of a newsworthy item
to turn into a philosophical debate of religion and atheism, did you?
To get things back on topic, I hope that the amateur radio operators are
getting ready for Rita. It looks like it will be another bad one, too.

"Charlie" <chas@aol.com> wrote in message
news:11htogetcauugb1@news.supernews.com...
> 1. http://www.msnbc.msn.com/id/9228945/
>
> --
>
> Charlie - AD5TH
> www.ad5th.com
>
>
>
>
>
>
>

924. Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 05:45:41 UTC
From: Cencom <Cencom@Maine.RR.Com>
Message-ID: <9EMYe.89486$EX.17784@twister.nyroc.rr.com>
Source record: 70321

John,

The general rule-of-thumb for a utility pole installation in sort-of normal soil is 10 percent of the pole's length, plus 2 feet in the ground. For example, a 40 foot pole would be placed in an augered hole 6 feet deep, leaving 34 feet above ground. The hole should be back-filled and tamped to provide support for the pole. No concrete is needed.

73, Larry - W1GOR

"John N9JG" <john@gotwals.xremovey.com> wrote in message news:dgc7u7$9h8$1@mailhub227.itcs.purdue.edu...
>I am in the planning stage for a 160 meters compact loop antenna. A loop
>antenna may not have metal nearby, so I am planning to use a wooden pole to
>support the top of the loop. In the ARRL Antenna handbook, it states that
>"W5QJR made a pole of 2 x 4-inch lumber with 1 x 4-inch boards on either
>side to form an I section. He held the boards together with 1/4-inch bolts,
>2 feet apart and tied rope guys to the top. This made an excellent mast up
>to 50 feet high."
>
> Does anyone have any comments on the feasibility of an unguyed pole using
> this same type of construction? Naturally, a portion of the pole would
> have to be underground, and perhaps set in concrete. What about a 50 feet
> pole, with 10 feet underground ,which would give you a 40 foot mast?
>
> An alternative would be to have a contractor install a 40 feet utility
> pole, but I assume the wooden pole described above would be less of an
> eyesore (to the neighbors) than a utility pole.
>
> Any comments and advice will be appreciated.
> John, N9JG
>

925. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 11:44:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127476030_6553@spool6-east.superfeed.net>
Source record: 70322
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Kï¿½HB wrote:
> And He went away

Later He sent Lucifer back to earth to see what was going on.
Lucifer wrote "Letters From Earth" back to God - one of my
favorite books.
--
73, Cecil http://www.qsl.net/w5dxp

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926. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 11:48:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127476277_6555@spool6-east.superfeed.net>
Source record: 70323
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Charlie wrote:
> If they aren't on some sin ridden guilt trip they are "free from sin" by
> papal absolution...you know..the same way those pedophile priests were all
> "forgiven" for butt-fucking little children. Ain't it great??

Atheists cannot afford to sin - there's no one to forgive them.
--
73, Cecil http://www.qsl.net/w5dxp

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927. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 11:52:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127476514_6559@spool6-east.superfeed.net>
Source record: 70324
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Pat Stevens wrote:
> To get things back on topic, I hope that the amateur radio operators are
> getting ready for Rita. It looks like it will be another bad one, too.

From what a ham told me yesterday while sitting on I-45N, he may
still be sitting there out of gas when Rita hits. He had moved
half a mile in the last hour.
--
73, Cecil http://www.qsl.net/w5dxp

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928. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 12:52:15 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dh0tq0$u8q$1@mailhub227.itcs.purdue.edu>
Source record: 70325

Thanks for your comments. My current thinking on this matter is to purchase a 35 or 40 feet hinge base fiberglass flagpole. Going this route costs a few bucks, but the flagpole only weighs about 75 pounds and can be moved in the event that I change QTHs. http://www.excelsails.com/flagpole.htm

"Cencom" <Cencom@Maine.RR.Com> wrote in message news:9EMYe.89486$EX.17784@twister.nyroc.rr.com...
> John,
>
> The general rule-of-thumb for a utility pole installation in sort-of
> normal soil is 10 percent of the pole's length, plus 2 feet in the ground.
> For example, a 40 foot pole would be placed in an augered hole 6 feet
> deep, leaving 34 feet above ground. The hole should be back-filled and
> tamped to provide support for the pole. No concrete is needed.
>
> 73, Larry - W1GOR

929. Re: Wooden I section pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 13:44:21 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11j81mdq280jhcb@corp.supernews.com>
Source record: 70226

John N9JG wrote:
> Thanks for your comments. My current thinking on this matter is to purchase
> a 35 or 40 feet hinge base fiberglass flagpole. Going this route costs a few
> bucks, but the flagpole only weighs about 75 pounds and can be moved in the
> event that I change QTHs. http://www.excelsails.com/flagpole.htm
>
>
> "Cencom" <Cencom@Maine.RR.Com> wrote in message
> news:9EMYe.89486$EX.17784@twister.nyroc.rr.com...
>
>>John,
>>
>>The general rule-of-thumb for a utility pole installation in sort-of
>>normal soil is 10 percent of the pole's length, plus 2 feet in the ground.
>>For example, a 40 foot pole would be placed in an augered hole 6 feet
>>deep, leaving 34 feet above ground. The hole should be back-filled and
>>tamped to provide support for the pole. No concrete is needed.
>>
>>73, Larry - W1GOR
>
>
>
Make sure that the pole can support the wind load of your proposed
antenna's. Remember fiberglass is strong but brittle and will snap is
overloaded.

Dave WD9BDZ

930. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 13:46:33 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <ZGTYe.2565$0m6.2460@newsread3.news.pas.earthlink.net>
Source record: 70227
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Cecil Moore" <mycall@arrl.net> wrote

> Later He sent Lucifer back to earth to see what was going on.
> Lucifer wrote "Letters From Earth" back to God - one of my
> favorite books.

Much better than Huck Finn!

Are you hunkered down waiting for the rain?

Beep beep
de Hans, K0HB

931. Re: Second try with Beverage Antenna in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 14:34:05 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <d648j1hv3leg86v5bdd6mlhq8rf3c7jc2t@4ax.com>
Source record: 70228

On Fri, 23 Sep 2005 03:21:24 GMT, Bob Miller <NOSPAM@neosoft.com> wrote:

>On Thu, 22 Sep 2005 23:10:17 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>On Thu, 22 Sep 2005 19:36:35 -0700, "Rod Maupin" <gridman@ywave.com> wrote:
>>
>>>I was born in '59, so I didn't know any of this. Very interesting. Thanks
>>>for posting it.
>>>
>>>Rod KI7CQ
>>>
>>Glad you guys find my posting of interest, and since you do, I'll have a coupla
>>more coming.
>>
>>Walt, W2DU
>
>I have no experience with Beverage antennas, but 4000 miles for what
>had to be a not very powerful Japanese station at 650 khz sounds
>pretty good.
>
>Bob
>k5qwg
>
Bob, the Beverage wasn't used for its ability to receive weak signals, but for it's capability of rejecting the unwanted signals, KFI in LA in this case. Terminating the long wire of a Beverage makes it a traveling-wave antenna, in contrast to the usual standing-wave antenna. Consequently, with the termination at the end opposite to the direction of the unwanted signal, the unwanted signal travels to terminating end and is dissipated there. Because the resistive termination is equal to the Zo of the antenna the unwanted signal is dissipated with no reflection. Therefore the receiver doesn't see the unwanted signal.

Walt

932. Re: Fiberglass pole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 15:18:00 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dh16b9$3hf$1@mailhub227.itcs.purdue.edu>
Source record: 70229

Thanks, Dave, for mentioning this. In my case the pole will be supporting an octagon shaped loop made out of 100 feet of 3/4" copper pipe. The top of the loop will be several feet below the pole top, and if necessary I will guy the top of the pole.

"David G. Nagel" <nagel@core.com> wrote in message news:11j81mdq280jhcb@corp.supernews.com...
> John N9JG wrote:
>> Thanks for your comments. My current thinking on this matter is to
>> purchase a 35 or 40 feet hinge base fiberglass flagpole. Going this route
>> costs a few bucks, but the flagpole only weighs about 75 pounds and can
>> be moved in the event that I change QTHs.
>> http://www.excelsails.com/flagpole.htm
>>
>>
> Make sure that the pole can support the wind load of your proposed
> antenna's. Remember fiberglass is strong but brittle and will snap is
> overloaded.
>
> Dave WD9BDZ

933. The Correct Polarization Saves Lives During WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 15:21:38 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <s078j11fada7cgj0jplj17qfqq83qgk15l@4ax.com>
Source record: 70230

During WW2, Prose Walker, W4BW, (then W2CXA) in 1942 became Chief of the Radio Security Center (RSC) of FCC's RID, located in the Dillingham Building, Honolulu. (Long after WW2 Walker was Chief of the Amateur Division of the FCC, succeeded by John Johnston, W3BE, President of QCWA.) In his position as Chief RSC Walker learned that many military aircraft and its personnel were being lost at sea while traveling from the U.S. Mainland to Hawaii. There were two reasons for their being lost, 1) 'navigationally impaired' pilots (bureaucratese for 'lost'), and 2) totally drained fuel tanks. There was naturally a limit to the size of the fuel tanks, but what caused the pilots to become navigationally impaired? That point preyed on Walker's mind, and on investigating he discovered a deplorable situation that needed fixing. Here's what he found.

At the Boeing aircraft plant in Seattle they were building bombers as fast as possible. Dozens of green flight teams just out of flight school were awaiting their new aircraft, and anxious to get aboard and proceed to the South Pacific area as soon as possible. The navigators and radio operators were taught how to use the loop direction finders that were standard equipment on the aircraft. But they were never told that loop DF's were incapable of obtaining reliable directional information from signals propagated by sky waves. The DF's aboard the aircraft were capable of delivering reliable data only when the electromagnetic energy in the received signals is vertically polarized, but the navigators and radio ops didn't know that. Unfortunately for them, on reflection and refraction through the ionosphere, a linearly-polarized wave is converted into an elliptically-polarized wave, resulting in a continual shift in the null obtained by the loop DF as the polarization angle of the incoming signal rotates elliptically during propagation. Consequently, once the aircraft has left the mainland, and can no longer receive the vertically polarized waves from AM broadcast stations, the only reception remaining is from sky waves propagated far beyond the range of the ground waves of the AM stations. Therefore, bearings taken from the loop DF's aboard the aircraft when at sea beyond the ground wave signal were useless. The only remaining means for the navigator to determine the position of the aircraft was through celestial navigation, using readings from the sun or stars. The situation gets pretty bad on cloudy days, and that's when the pilots became navigationally impaired.

At this point Walker came up with a solution that ended the era of lost aircraft flying between the mainland and Hawaii. Fortunately, every FCC monitoring station in the U.S., Hawaii, Alaska, and Puerto Rico had Adcock direction finders as standard equipment. Adcocks, as you probably already know, are susceptible only to the vertical component of the arriving wave, regardless of its angle of polarization. Therefore, instead of constantly wandering, as with the loop DF, the null obtained appears at constant angle on the Adcock scale, even though the angle of polarization of the arriving wave is continually rotating elliptically. In other words, Adcocks give accurate directional information obtained from sky waves. Walker's reasoning was that triangulation from bearing measurements obtained by the FCC Adcocks taken on signals

transmitted from the lost aircraft could determine its precise location, and thus determine a course to fly directly toward Hickam Field in Honolulu. The problem then was how to organize the communications to achieve the necessary procedure. Walker organized it in this manner:

The CAA (then the Civil Aeronautics Administration) had a terminal in Honolulu with facilities for communicating with all aircraft. A direct teletype connection was setup between the CAA and the RSC, which had a kilowatt transmitter used to communicate with the secondary monitoring stations on all the Islands, each of which had Hallicrafters HT-9 transmitters. When the pilot of the aircraft determined they were lost, the radio operator signals the CAA, who instantly puts the aircraft's frequency on the teletype and rang its bell, alerting the RSC operator of the situation. The RSC operator then sends the following message to all secondary stations that continuously monitor the RSC frequency: "LOS LOS LOS 4250 4250 4250," where LOS meant lost aircraft and 4250 was the frequency being transmitted by the aircraft. The operators of the Adcock DF stations immediately tune to the 4250 KHz frequency, hears the aircraft, and begins taking continuous bearings. The aircraft is sending long dashes, MO MO MO, to enable the DF operators to be certain they're hearing the right signal, and obtain a satisfactory bearing angle on a moderately constant signal.

As each bearing is taken by all stations, the bearing angles are transmitted to RSC, where a great circle map of the entire Hawaiian area is hanging on the wall. A compass rose is printed on the map at the location of every monitoring station in the Islands, with a hole in the center of the rose through which a weighted string is hung. A pin is attached to the opposite end of the string to secure the string at the desired point on the map, with the string stretched over the angle on the compass rose indicating the angle of the bearing obtained by that particular station. As the strings representing each station reporting are secured they intersect at the point indicating the location of the lost aircraft, the intersection point called a 'cocked hat'. It was usual for the aircraft's position to be determined within ten minutes after the pilot alerted the CAA of its being lost.

After the aircraft's position is located it is then given a course to fly toward Hickam Field, and the bearing measurements are reported continually until the pilot can see the Field. During this time the aircraft's location is followed all the way in to the Field, thus verifying the accuracy of the bearing measurements and the pilot's success in following the directions.

Once Walker's plan was in operation no more aircraft were lost while flying between the mainland and the Hawaiian Islands. In 1943 alone, 273 aircraft were saved by the FCC Adcocks, and more than 600 were saved during the duration of the War.

Unfortunately, planes were continuing to be lost on the run between Hawaii and the South Pacific, so Walker was invited by the Military to investigate. What he found was almost unbelievable. The Army Air Corps was using Mercator Projection maps for those runs, unaware that using maps of that projection produced directional errors of humongous and fatal proportions. On Walker's advice, once they acquired new maps with great circle projection, the number of lost planes dropped to zero.

This is just one of the stories of how the FCC assisted in the ending of WW2. I was privilged to have been one of the bearing takers.

Walt, W2DU

934. Re: The Correct Polarization Saves Lives During WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 15:27:41 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dh16te$3qt$1@mailhub227.itcs.purdue.edu>
Source record: 70231

A most interesting and fascinating posting.
"Walter Maxwell" <walt@w2du.com> wrote in message
news:s078j11fada7cgj0jplj17qfqq83qgk15l@4ax.com...
> During WW2, Prose Walker, W4BW, (then W2CXA) in 1942 became Chief of
> the
> Radio Security Center (RSC) of FCC's RID, located in the Dillingham
> Building,
[cut]

935. Re: The Correct Polarization Saves Lives During WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 15:29:04 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <dn78j1d5917pe9ldh51mt1ia37gt0fdc3g@4ax.com>
Source record: 70232

On Fri, 23 Sep 2005 10:27:41 -0500, "John N9JG" <john@gotwals.xremovey.com>
wrote:

>A most interesting and fascinating posting.
>"Walter Maxwell" <walt@w2du.com> wrote in message
>news:s078j11fada7cgj0jplj17qfqq83qgk15l@4ax.com...
>> During WW2, Prose Walker, W4BW, (then W2CXA) in 1942 became Chief of
>> the
>> Radio Security Center (RSC) of FCC's RID, located in the Dillingham
>> Building,
>[cut]
>
A correction re Prose Walker's call signs. He was originally W 2BMX , and later
W0C XA.

Walt. W2DU

936. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 15:31:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127489647_10041@spool6-east.superfeed.net>
Source record: 70233
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Kï¿½HB wrote:
> Are you hunkered down waiting for the rain?

For awhile, I thought Rita was going to come up I-45 but
latest estimates has it sweeping through East of me which
is good news. However, if two high pressure areas merge,
Rita will stall out over East Texas and dump tens of
inches of rain on me and my kinfolks. (The HWN frequency
is 14.325 MHz at 2200 UTC.) My ISP will probably go down
tomorrow morning.
--
73, Cecil http://www.qsl.net/w5dxp

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937. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 15:47:32 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <acadb$433423b9$97d56a13$24586@ALLTEL.NET>
Source record: 70234
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Could you give us some specifics to support your broad assertions?

"Uncle Ted" <malican40@verizon.com> wrote in message
news:52n6j1ltspei2qc17vnhelkaccvsvuolfr@4ax.com...
> On Thu, 22 Sep 2005 09:47:45 -0500, Matt Osborn <> wrote:
>
>
> >Ever hear of Stalin? Lenin? Mao?
> >
> >Can you name three other people who have been responsible for as many
> >untimely deaths as these three?
>
> Just about every Roman Catholic pope that served from about 300 to
> 1600 C.E. I don't know their names, but I'm pretty sure there were
> more than three during that time period...
>
>

938. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 15:50:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dq78j1hbqtor6ig9f90vvbhlij75437ijh@4ax.com>
Source record: 70235
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 09:54:20 -0500, Matt Osborn <> wrote:
>No Richard, it didn't originate from me.
Again, in contradiction with:
>I merely presented the views
with an affirmation of it being speculation:
>of others in a new light.
This is commonly known as putting your words in other's mouths. Again, self-fulfilling prophecy.

>So you think everyone else should be the arbiter? Or perhaps that
>anybody else should be the arbiter?

Hi Matt,

A very strange question. You offer it in terms of a projection. The question:
>So you think everyone else should be the arbiter?
Is phrased not about a neutral subject, who should be arbiter, but rather is couched as do I think....

The neutral context would have simply asked: Who should be arbiter?

What I think is expressed by me, not you. You might ask questions, but phrasing them in speculative terms and projecting them into my mind is a prejudicial bias.

>Once again though, we digress from the argument. Does an atheist
>believe in anything outside himself? I submit that he most certainly
>does. You have admitted as much when you introduced ethics which
>requires a basis.

See what I mean? You have injected your own belief by asserting I made an admission. An admission is a loaded statement in a Christian cultural context relating to guilt. You could have as easily pointed out I raised the subject, which is a neutral observation. As such, this bias is inserting itself as a judgment of the moral validity and application of otherwise bland statements.

>Feel free to present an argument that rebuts any of those points.

Once you free yourself of contextual prejudices.

73's
Richard Clark, KB7QHC

939. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 16:01:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127491424_10065@spool6-east.superfeed.net>
Source record: 70236
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> If you can present a cogent argument for ethics and morality that
> requires absolutely no assumptions, then you could make a case for
> atheism.

Please see Ayn Rand's, "Introduction to Objectivism".
Everything is based on reality. Absolutely no belief
in the supernatural required.
--
73, Cecil http://www.qsl.net/w5dxp

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940. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 16:08:56 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <913a$433428be$97d56a13$25422@ALLTEL.NET>
Source record: 70237
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

You say that like it's a bad thing...

How can you deny the fact that God has sent two hurricanes to wipe out the Sodom of the South?

New Orleans was filled with perversion, pimps, homosexuals, Jezebels, and all manner of sins.

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message news:Bd-dnfOQuoLh667eRVn-jg@comcast.com...
> ??? You have got to be kidding? What has religion possibly done for
> anyone except provided false hope while stealing their money?
>
> Stifling science (from Galileo to stem cells), witch burning, condoning
> slavery, religious genocide on unprecedented scale, eradicating whole
> civilizations, oppressing women, condoning fascism and
> national-socialism, suppressing human rights for minorities, huge waste
> of resources that could be better spent elsewhere, contributing to
> millions of dead from AIDS by banning contraceptives, flaming national
> and religious intolerance from Ireland to Palestine, and I could go on
> forever...
>
> As for your "blight" comment, a majority of scientists are atheists, for
> example. The percentage increases with education. That's education *not*
> Kansas style.
>
> 73 ... WA7AA

941. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 16:11:07 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <vOVYe.2215$zQ3.953@newsread1.news.pas.earthlink.net>
Source record: 70238
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<Matt Osborn> wrote

>
> If we have faith, then we are not atheists, we are religious, we
> believe.
>

If we have faith in a god, we are theists, and therefore religious.

If we are not believers in a god, we are by definition atheists and therefore
not religious, all your Alice-in-Wonderland style wordsmithing notwithstanding.

Everyone has to believe something. I believe I'll have another martini.

942. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 16:17:37 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1127492257.911054.256880@f14g2000cwb.googlegroups.com>
Source record: 70239
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> You say that like it's a bad thing...
>
> How can you deny the fact that God has sent two hurricanes to wipe out the
> Sodom of the South?

very easy, since no such thing has happened. NO still stands and will
back to something like norml in a few weeks to months
>
> New Orleans was filled with perversion, pimps, homosexuals, Jezebels, and
> all manner of sins.
>
>
>
>
>
> "Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
> news:Bd-dnfOQuoLh667eRVn-jg@comcast.com...
> > ??? You have got to be kidding? What has religion possibly done for
> > anyone except provided false hope while stealing their money?
> >
> > Stifling science (from Galileo to stem cells), witch burning, condoning
> > slavery, religious genocide on unprecedented scale, eradicating whole
> > civilizations, oppressing women, condoning fascism and
> > national-socialism, suppressing human rights for minorities, huge waste
> > of resources that could be better spent elsewhere, contributing to
> > millions of dead from AIDS by banning contraceptives, flaming national
> > and religious intolerance from Ireland to Palestine, and I could go on
> > forever...
> >
> > As for your "blight" comment, a majority of scientists are atheists, for
> > example. The percentage increases with education. That's education *not*
> > Kansas style.
> >
> > 73 ... WA7AA

943. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 16:18:04 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <92f97$43342ae1$97d56a13$25816@ALLTEL.NET>
Source record: 70240
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Things I have learned from watching the news about Hurricane Katrina on TV:

1. The hurricane only hit black family's property.

2. New Orleans was devastated and no other city was affected by the hurricane.

3. Mississippi is reported to have a tree blown down.

4. New Orleans has no white people.

5. The hurricane blew a limb off a tree in the yard of an Alabama resident.

6. When you are hungry after a hurricane destroys your property, steal a big screen TV.

7. The hurricane did 23 billion dollars in improvements to New Orleans: now the city is welfare, looters and gang free and they are in your city.

8. White folks don't make good news stories.

9. Don't give thanks to the thousands that came to help rescue you, instead bitch because the government hasn't given you a debit card yet.

10. Only black family members got separated in the hurricane rescue efforts.

11. Ignore warnings to evacuate and the Government will come get you and give you money for being stupid.

12. Oh, and it is all George Bush's fault, not the mayor's or Governor's.

944. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 16:36:31 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <jaWYe.2400$oc.776@newsread2.news.pas.earthlink.net>
Source record: 70241
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Fred W4JLE" <w4jle@w4jle.com> wrote

>
> How can you deny the fact that God has sent two hurricanes to wipe out the
> Sodom of the South?
>

Is that the same god who murdered-by-fire all those old folks on that evacuation bus on I-45 this morning? If so, he's one mean perverted summabitch if you ask me!

73, de Hans, K0HB

945. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 16:50:12 UTC
From: Charlie <charlie@play.com>
Message-ID: <11j8cii7qh19l05@news.supernews.com>
Source record: 70242
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"He that makes kittens...puts snakes in the grass"

--

Charlie

"K&#65533;HB" <groupk0hb@earthlink.net> wrote in message
news:jaWYe.2400$oc.776@newsread2.news.pas.earthlink.net...
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote
>
>>
>> How can you deny the fact that God has sent two hurricanes to wipe out
>> the
>> Sodom of the South?
>>
>
> Is that the same god who murdered-by-fire all those old folks on that
> evacuation bus on I-45 this morning? If so, he's one mean perverted
> summabitch if you ask me!
>
> 73, de Hans, K0HB
>
>
>
>
>
>
>

946. Re: The Correct Polarization Saves Lives During WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 17:16:59 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11j8e481lk8sccd@corp.supernews.com>
Source record: 70243

That story is very interesting.

I am a software developer, but a project I work on in my spare time deals with mapping. I can understand what you said about using the wrong maps.

As far as radio, I can tell I have a lot to learn.

Thanks.

Rod KI7CQ

947. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 17:38:17 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b330e$43343db0$97d56a13$28945@ALLTEL.NET>
Source record: 70244
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Nah, just living up to the self full filling prophecy of the other member of this conference, who is fond of painting with extremely broad brushes.

Demonstrating absurdity by being absurd.

"K&#65533;HB" <groupk0hb@earthlink.net> wrote in message
news:jaWYe.2400$oc.776@newsread2.news.pas.earthlink.net...
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote
>
> >
> > How can you deny the fact that God has sent two hurricanes to wipe out
the
> > Sodom of the South?
> >
>
> Is that the same god who murdered-by-fire all those old folks on that
evacuation
> bus on I-45 this morning? If so, he's one mean perverted summabitch if
you ask
> me!
>
> 73, de Hans, K0HB
>
>
>
>
>
>

948. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 17:51:36 UTC
From: Vito <vito@crosslink.net>
Message-ID: <433440ac$0$9217@dingus.crosslink.net>
Source record: 70245
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<Matt Osborn> wrote
> By definition, anyone who has a system of beliefs cannot consider
> himself to be an atheist.

That is simply not true. An athiest is, by dictionary definition, one who denies the existence of any god(s). He or she may very well have a sophisticated (or simple) system of morals and beliefs that exclude gods.

949. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 17:57:36 UTC
From: Vito <vito@crosslink.net>
Message-ID: <43344214$0$9217@dingus.crosslink.net>
Source record: 70246
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Uncle Ted" <malican40@verizon.com> wrote
> If not an atheist, what do *you* call a person that doesn't believe in
> some big sky fairy called "God", or that some Jew-on-a-stick died and
> came back to life some two thousand years ago, or any other deity for
> that matter?

"Agnostic". Look it up. An athiest denies the existence of any god; an
agnostic says it is impossible to know.

950. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:11:26 UTC
From: Vito <vito@crosslink.net>
Message-ID: <43344552$0$9219@dingus.crosslink.net>
Source record: 70247
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<Matt Osborn> wrote
> If we have faith, then we are not atheists, we are religious, we
> believe.

Your vocabulary needs work. "Atheist" does not mean lack of faith. An athiest HAS faith ... faith that there is no god. One can have faith in his/her ideals, friends, a million things, and still be an athiest.

951. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:20:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dph8j1d15l4ok5q8vrs97269f2dvet9jgm@4ax.com>
Source record: 70249
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 12:18:04 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:
>Things I have learned from watching the news about Hurricane Katrina on TV:

Hi Fred,

With that kind of lead-in, it naturally pollutes everything that
follows - worst yet is that you are suffering problems of water damage
by standing in that pollution.

73's
Richard Clark, KB7QHC

952. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:20:56 UTC
From: Vito <vito@crosslink.net>
Message-ID: <4334478c$0$9217@dingus.crosslink.net>
Source record: 70248
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Uncle Ted" <malican40@verizon.com> wrote
> On Thu, 22 Sep 2005 09:47:45 -0500, Matt Osborn <> wrote:
> >Ever hear of Stalin? Lenin? Mao?
> >
> >Can you name three other people who have been responsible for as many
> >untimely deaths as these three?
>
> Just about every Roman Catholic pope that served from about 300 to
> 1600 C.E. I don't know their names, but I'm pretty sure there were
> more than three during that time period...
>
Not to mention Hitler. IIRC his record was right up there with Lenin and
Stalin. Mao an athiest?? I believe he was a Taoist.

953. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:35:54 UTC
From: Vito <vito@crosslink.net>
Message-ID: <43344b0e$0$9219@dingus.crosslink.net>
Source record: 70250
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<Matt Osborn> wrote
> Zoran Brlecic<...WA7AA...@get.lost> wrote:
> >Matt Osborn wrote:
> >
> >
> >> In all cases, they believe and act according to their beliefs. That
> >> the atheists fall prey to their unrecognized beliefs cannot be
> >> disputed.
> >
> >And this is because you say so?
>
> Please counter the argument. If atheists do not have faith in their
> beliefs, then upon what basis would they judge their choices?

Jeeze, do y'all speak English or own dictionaries? Athiests DO have faith in
their beliefs, one of which is that there is no god.
>
> Law itself is derived directly from religious thought. If there were
> no belief system, there could be no law. Dictatorships have no law,
> that's what makes them so awful.

That is so absolutely wrong that it is hard to explain. Dictatorships *do*
have law. Check out Hitler's Germany, Franco's Spain or, more recently
Saddam's Iraq - all with stringent legal codes and none athiestic. OTOH,
there are legal systems, Marxist Russia for example, that had plenty of laws
but denied the existence of any god making them athiestic.

954. Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:36:05 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1127500565.002715.196800@o13g2000cwo.googlegroups.com>
Source record: 70251

I is said that Cohen and Robert Hohlfeld has proved
mathematically that for an antenna to work equally
well at all frequencies, it must satisfy two criteria:

1. It must be symmetrical about a point.

2. And it must be self-similar, having the same basic appearance at
every
scal.

That is, the antenna has to be "fractal."

Does anyone know how this "theorem" was proved?

-- Harry

955. Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:38:03 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11j8isc2vp1so0f@corp.supernews.com>
Source record: 70252

I posted this on the wrong newsgroup a few days ago and no one has answered, so I'll try here.

I have a Butternut Vertical (as a secondary antenna) and a regular radial system set up with it. I also have a metal roof on my house (here in the country in Western Washington). I have been wondering if I can use the metal roof as the radial system/ground plane for this antenna. Haven't tried it yet. Would this work or would it detune the antenna?

What do you guys think?

Rod KI7CQ

956. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:39:36 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11j8iv9ofrglt2a@corp.supernews.com>
Source record: 70253

I don't know, but I would like to know. I am a software developer and am interested in fractals.

Rod KI7CQ

957. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 18:54:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mcj8j1dob0s3uie81aua4lskvlsfn5n6je@4ax.com>
Source record: 70254

On 23 Sep 2005 11:36:05 -0700, "Harry" <harry0d88@aol.com> wrote:

>I is said that Cohen and Robert Hohlfeld has proved
>mathematically that for an antenna to work equally
>well at all frequencies, it must satisfy two criteria:
>
>1. It must be symmetrical about a point.
>
>2. And it must be self-similar, having the same basic appearance at
>every
>scal.
>
>That is, the antenna has to be "fractal."
>
>Does anyone know how this "theorem" was proved?
>
>-- Harry

Hi Harry,

The correct question is "How many times has it been disproved."

So many times that those authors have abandoned the contest in shame.
After-all, can you point to a single instance of a fractal antenna
that does not carry so many constraints to competition that it doesn't
suffer the enigma of being an accidental discovery rather than a proof
of concept?

Basically what is being alluded to as this "theorem" is simply Zen
archery. After a shot "arrow" of specific design was discovered to
have some virtue, the "target" was painted around it and called a
theory.

How many examples would prove otherwise to disqualify the
theory/theorem? I can lead you to several hundred pages of results if
you really care.

73's
Richard Clark, KB7QHC

958. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:15:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <krk8j113ae9r2sgt7s4as7bnlnld35vet6@4ax.com>
Source record: 70255

On Fri, 23 Sep 2005 11:38:03 -0700, "Rod Maupin" <gridman@ywave.com>
wrote:

>Would this work or would it detune the antenna?

Hi Rod,

It would be simpler to just do it and see what happens. The worst
that comes of it is that the metal roof needs the sections
electrically bonded together. Not so much as a "ground plane" as to
reduce corroded connections (by bridging and shorting them) that act
as semiconductors and thus give rise to spurious emissions.

Any elevation removes your antenna from the deadly embrace of lossy
ground.

73's
Richard Clark, KB7QHC (also Western WA, Seattle)

959. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:24:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh1kpq$d7k$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70256

Of what use, if the theorem exists, is a fractal antenna anyway?

It cannot perform any better than any other antenna of similar overall dimensions and in some respects, given the opportunity, it will do worse. Just like the discredited E-H antenna it is wishful thinking.

960. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:33:19 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dh1l9v$1f1q$1@f04n12.cac.psu.edu>
Source record: 70257
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:
> Tom Ring wrote:
>
>> Matt Osborn wrote:
>>
>>>
>>>
>>> A few thousand compared to 50 million?
>>>
>>
>> Well that certainly makes it ok. You mean you aren't an absolutist?
>>
>> tom
>> K0TAR
>>
>
> The difference between me and you is that I know it's always wrong, and
> you seem to have left an opening for your "religion" to do evil things
> becuase your morality says it's ok.
>
> I'm sorry that you can't understand that an atheist can have morals not
> tied to superstition, but to to true right and wrong.

First Crusade:

12,000 Jews killed in the Rhine valley.
6000 killed in Jerusalem when they torched the synagogue there
30,000 Muslims killed at the al Aqsa mosque.
at least 200,000 killed over the length of the crusades.

Then let us not forget the Iquisitions, witch-hunts and other jollies
that went on.

And there is plenty more to go around on all sides. Appears

We're a long way from "a few thousand".

But as the recent poster Mike has noted, this is pretty off topic, so
I'll refrain from any more posting in this thread.

- Mike KB3EIA -

961. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:36:58 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11j8manfqqb1v2b@corp.supernews.com>
Source record: 70258

I think you are right, Richard. I'll just do it and see what happens. The thing is the roof is a painted metal, so I'm curious if there is continuity between the sections.

Thanks Richard. By the way, I live in Rainier, down by Olympia.

Rod

962. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:40:47 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dh1lo0$1aom$1@f04n12.cac.psu.edu>
Source record: 70259
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Kï¿½HB wrote:

> <Matt Osborn> wrote
>
>
>>If we have faith, then we are not atheists, we are religious, we
>>believe.
>>
>
>
> If we have faith in a god, we are theists, and therefore religious.
>
> If we are not believers in a god, we are by definition atheists and therefore
> not religious, all your Alice-in-Wonderland style wordsmithing notwithstanding.
>
> Everyone has to believe something. I believe I'll have another martini.

I believe next time you should invite me!

- Mike KB3EIA -

963. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:42:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh1lrt$2sg$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70260

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11j8iv9ofrglt2a@corp.supernews.com...
> I don't know, but I would like to know. I am a software developer
and am
> interested in fractals.
>
==========

So you like to amuse yourself by producing useless pretty patterns on
the screen. ;o)

964. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:58:00 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87psqz5zg7.fsf@qmc.ph.msstate.edu>
Source record: 70263

>I have a Butternut Vertical (as a secondary antenna) and a regular radial
>system set up with it. I also have a metal roof on my house (here in the
>country in Western Washington). I have been wondering if I can use the
>metal roof as the radial system/ground plane for this antenna. Haven't
>tried it yet. Would this work or would it detune the antenna?

I did that once with a HF6V and a metal roof about 40' above ground.
It seemed to work fairly well. The tuning on the Butternut is fairly
touchy on several bands, so yes, you will probably need to retune it
between roof mounting or ground mounting (I did).

Tor
N4OGW

965. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 19:58:03 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11j8ni9ti8oj57f@corp.supernews.com>
Source record: 70262

Yes, I have at times amused myself by looking at fractal patterns. Not in a few years though. What was interesting is that I had never heard of a fractal antenna before.

966. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:09:21 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11j8o8g4gceuj4b@corp.supernews.com>
Source record: 70264

Reg Edwards wrote:
> "Rod Maupin" <gridman@ywave.com> wrote in message
> news:11j8iv9ofrglt2a@corp.supernews.com...
>
>>I don't know, but I would like to know. I am a software developer
>
> and am
>
>>interested in fractals.
>>
>
> ====================================
>
> So you like to amuse yourself by producing useless pretty patterns on
> the screen. ;o)
>
>
While many would agree with you, fractals have been used in graphics to produce images that rival artists. For instince the images used to display Spock's Planet in the Star Treck movie were created using fractals. I beleive that the images of one of the Mars video's that NASA uses to show the surface of Mars is created using fractals to generate the 3-D images.

Dave N

967. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:10:20 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11j8ob2r2sekq63@corp.supernews.com>
Source record: 70265

Thanks Tor. I have the same antenna, an HF6V. You're right. It is touchy on some of the bands.

Rod

968. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:11:18 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11j8oc43ce6506d@corp.supernews.com>
Source record: 70266

Rod Maupin wrote:

> I think you are right, Richard. I'll just do it and see what happens. The
> thing is the roof is a painted metal, so I'm curious if there is continuity
> between the sections.
>
> Thanks Richard. By the way, I live in Rainier, down by Olympia.
>
> Rod
>
>
Rod;

Assume not and you will not make an Ass of you and me.
Bond the individual segments and let us know how it works.

Dave WD9BDZ

969. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:15:58 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1127506558.380412.225540@g44g2000cwa.googlegroups.com>
Source record: 70267

FYI, quote fron Fractal Antenna FAQ webpage at:
http://www.fractenna.com/faq/faq.html

Q: I understand that fractals have been used to solve an old problem from Maxwell's Equations. What is that?

A: In 1999, Fractal's Nathan Cohen published an article solving a basic problem: What are the requirements to make antennas frequency invariant? A later article by Robert Hohlfeld and Nathan Cohen then analytically showed that you need origin and self symmetry (self similarity) for this to occur in Maxwell's Equations. The implications are profound for antenna design, as a previous but less universal explanation by Victor Rumsey, made nearly 50 years ago, was shown to not be the total picture. The necessary and sufficient conditions for frequency invariance have been dubbed 'HCR Conditions', after the three contributors to solving this age old problem.

-- Harry

970. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:43:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh1pd9cjr1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70268
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

There are no such things as "good" and "evil" or "right" and "wrong".

Except as opinions which depend on the point of view from which an individual may perceive events. Points of view are randomly distributed and depend solely on one's self-interests and one's location in space relative to the crowd.

Self interest is the keyword. But distant events (as most of them are) in time and space are rapidly attenuated in their effects on one's opinion. Which results in most people's opinions being neutral about most things, neither good nor bad.

Which is just the same as saying most people just don't think about things unless things are in their immediately vicinity. People are naturally mentally bone idle. As with all lifeforms, this conserves energy which is always in short supply.

Reg.

971. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:53:41 UTC
From: Cmdr Buzz Corey <me@that.moc>
Message-ID: <372dnVgODZLCwaneRVn-gg@gbronline.com>
Source record: 70261
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> You say that like it's a bad thing...
>
> How can you deny the fact that God has sent two hurricanes to wipe out the
> Sodom of the South?
>
> New Orleans was filled with perversion, pimps, homosexuals, Jezebels, and
> all manner of sins.

Along with a lot of good people as well, same with the Texas coast. So
if God has all this power, why does he have to destroy a city and good
people just to get rid of a few bad ones? Why doesn't he just strike the
bad ones dead? Why use a hurricane?

972. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:56:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8cp8j1dp70o6jr1sg9en94fiu57k6uga44@4ax.com>
Source record: 70270

On 23 Sep 2005 13:15:58 -0700, "Harry" <harry0d88@aol.com> wrote:

>FYI, quote fron Fractal Antenna FAQ webpage at:
>http://www.fractenna.com/faq/faq.html
>
>
>--
>
>Q: I understand that fractals have been used to solve an old problem
>from Maxwell's Equations. What is that?
>
>A: In 1999, Fractal's Nathan Cohen published an article solving a
>basic problem: What are the requirements to make antennas frequency
>invariant? A later article by Robert Hohlfeld and Nathan Cohen then
>analytically showed that you need origin and self symmetry (self
>similarity) for this to occur in Maxwell's Equations. The implications
>are profound for antenna design, as a previous but less universal
>explanation by Victor Rumsey, made nearly 50 years ago, was shown to
>not be the total picture. The necessary and sufficient conditions for
>frequency invariance have been dubbed 'HCR Conditions', after the three
>contributors to solving this age old problem.

Hi Harry,

There is a lengthy experience with such proclamations made here, by
those authors. The long and short of it is there is more crafting in
the language than there is in the theory being explained.

For one, who is credited with asking the "question?" Follow that lead
and you will find a sort of Mutt 'n' Jeff dialogue of mutual
convenience.

Simply by examining this language reveals that it is
self-congratulatory. For example, this alone:
>A: In 1999, Fractal's Nathan Cohen
Who, or what is Fractal to associate the possessive Fractal's?
or
>solving a basic problem
you may notice that this "problem" is never even discussed within the
context of your snippet, and throughout the entire page its meaning
shifts to suit the pitch.

Presumably it is
>What are the requirements to make antennas frequency invariant?
but through the crafting of language, that is not explicitly the
problem, nor is the paper the solution. The paper is "about"

> What are the requirements to make antennas frequency invariant?
which is a field that had been already tilled 50 years ago, and it wrought the Log Periodic forms described by Isbell, and the helices of Kraus. No, it takes an invented term, a forced definition, and claim grab to accomplish this "new" invention.

Problem is (and this is the nut of the case), no one in this "field" of fractals can point to an algorithm or calculation and say that this term describes the feedpoint impedance and that term relates to the radiation performance. Two qualities that any antenna savant would be interested in, but wholly missing from these "theories."

As I've offered hundreds of fractal examples (and I'm not too surprised to see zero expressed desire to see them), and in comparison to these merchandisers of rhetoric, they hardly rise to the level of what would be called antenna research. Their repertoire is painfully limited, certainly not unique, and has been shopworn for years. As a topic in this forum, you are among the rare questioners that drift in and then out. The topic is not self-sustaining beyond the morbid interest in the side show of freaks of nature.

73's
Richard Clark, KB7QHC

973. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 20:57:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127509196_10381@spool6-east.superfeed.net>
Source record: 70269

David G. Nagel wrote:

> Reg Edwards wrote:
> While many would agree with you, fractals have been used in graphics to
> produce images that rival artists. For instince the images used to
> display Spock's Planet in the Star Treck movie were created using
> fractals. I beleive that the images of one of the Mars video's that NASA
> uses to show the surface of Mars is created using fractals to generate
> the 3-D images.

Recently on TV, the possible conditions on newly conceived planets
in other solar systems were clearly fractal.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

974. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 21:08:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2b986$43346ee3$97d56a13$2350@ALLTEL.NET>
Source record: 70271

It was left to the marketing department.

I would urge you not to speak in doubting words about fractal antennas.
Should you fail to heed these words you will be added to the long list of
sue-ees...

It is my opinion that the Cohen circle jerk will continue to share a group
of devotees with the E/H and CFA inventors. Junk science is applied to areas
other than global warming...

There is nothing magic about a fractal, and other forms have proved equal or
superior to it as an antenna.

"Harry" <harry0d88@aol.com> wrote in message
news:1127500565.002715.196800@o13g2000cwo.googlegroups.com...
> I is said that Cohen and Robert Hohlfeld has proved
> mathematically that for an antenna to work equally
> well at all frequencies, it must satisfy two criteria:
>
> 1. It must be symmetrical about a point.
>
> 2. And it must be self-similar, having the same basic appearance at
> every
> scal.
>
> That is, the antenna has to be "fractal."
>
> Does anyone know how this "theorem" was proved?
>
> -- Harry
>

975. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 21:30:58 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11j8t1id2h0o8ca@corp.supernews.com>
Source record: 70272

Richard Clark wrote:

> On 23 Sep 2005 13:15:58 -0700, "Harry" <harry0d88@aol.com> wrote:
>
>
>>FYI, quote fron Fractal Antenna FAQ webpage at:
>>http://www.fractenna.com/faq/faq.html
>>
>>
>>--
>>
>>Q: I understand that fractals have been used to solve an old problem
>
>>from Maxwell's Equations. What is that?
>
>>A: In 1999, Fractal's Nathan Cohen published an article solving a
>>basic problem: What are the requirements to make antennas frequency
>>invariant? A later article by Robert Hohlfeld and Nathan Cohen then
>>analytically showed that you need origin and self symmetry (self
>>similarity) for this to occur in Maxwell's Equations. The implications
>>are profound for antenna design, as a previous but less universal
>>explanation by Victor Rumsey, made nearly 50 years ago, was shown to
>>not be the total picture. The necessary and sufficient conditions for
>>frequency invariance have been dubbed 'HCR Conditions', after the three
>>contributors to solving this age old problem.
>
>
> Hi Harry,
>
> There is a lengthy experience with such proclamations made here, by
> those authors. The long and short of it is there is more crafting in
> the language than there is in the theory being explained.
>
> For one, who is credited with asking the "question?" Follow that lead
> and you will find a sort of Mutt 'n' Jeff dialogue of mutual
> convenience.
>
> Simply by examining this language reveals that it is
> self-congratulatory. For example, this alone:
>
>>A: In 1999, Fractal's Nathan Cohen
>
> Who, or what is Fractal to associate the possessive Fractal's?
> or

>
>>solving a basic problem
>
> you may notice that this "problem" is never even discussed within the
> context of your snippet, and throughout the entire page its meaning
> shifts to suit the pitch.
>
> Presumably it is
>
>>What are the requirements to make antennas frequency invariant?
>
> but through the crafting of language, that is not explicitly the
> problem, nor is the paper the solution. The paper is "about"
>
>>What are the requirements to make antennas frequency invariant?
>

The thought occurs to me that depending on the number of iterations you take the fractal equation to the longer the length of the fractal. If you work the length enough you will get both resonance and impedance match out of a fractal antenna. Maybe that's how they work.

Dave N

> which is a field that had been already tilled 50 years ago, and it
> wrought the Log Periodic forms described by Isbell, and the helices of
> Kraus. No, it takes an invented term, a forced definition, and claim
> grab to accomplish this "new" invention.
>
> Problem is (and this is the nut of the case), no one in this "field"
> of fractals can point to an algorithm or calculation and say that this
> term describes the feedpoint impedance and that term relates to the
> radiation performance. Two qualities that any antenna savant would be
> interested in, but wholly missing from these "theories."
>
> As I've offered hundreds of fractal examples (and I'm not too
> surprised to see zero expressed desire to see them), and in comparison
> to these merchandisers of rhetoric, they hardly rise to the level of
> what would be called antenna research. Their repertoire is painfully
> limited, certainly not unique, and has been shopworn for years. As a
> topic in this forum, you are among the rare questioners that drift in
> and then out. The topic is not self-sustaining beyond the morbid
> interest in the side show of freaks of nature.
>
> 73's
> Richard Clark, KB7QHC

976. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 21:44:54 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <bjt8j1p5bg8m3fope1bakc1629b2ohsnr7@4ax.com>
Source record: 70273

On Fri, 23 Sep 2005 19:42:53 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>So you like to amuse yourself by producing useless pretty patterns on
>the screen. ;o)

Reg, there are more practical applications. It is a long time since I worked in the field, but fractals provided a good method (economical on data, realistic visually) of surface texture rendering in computer modelling of solid objects (eg roads, brickwork, stucco, etc).

Owen
--

977. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 22:17:42 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <aa%Ye.2500$oc.1592@newsread2.news.pas.earthlink.net>
Source record: 70274
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<Matt Osborn> wrote

> To rely upon faith requires an explicit acknowledgment of an unknown
> power greater than oneself.

No it doesn't. It simply requires an explicit acknowledgement of "we haven't learned the reason yet". No need for superstitions.

73, de Hans, K0HB

978. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 22:20:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <flv8j1dtfoak0hkh0b0imr3q4jnl7e7f4u@4ax.com>
Source record: 70275

On Fri, 23 Sep 2005 16:30:58 -0500, "David G. Nagel" <nagel@core.com>
wrote:

>The thought occurs to me that depending on the number of iterations you
>take the fractal equation to the longer the length of the fractal. If
>you work the length enough you will get both resonance and impedance
>match out of a fractal antenna. Maybe that's how they work.

Hi David,

Common experience teaches us that a bent clothes hanger replacement
for an automotive antenna works too, but this reveals nothing of why
beyond the commonplace explanations available for the last 100 years.

I covers length and iterations count and ... Which is more work and
more results offered by the entire field of fractals. To what end?
That this topic, due to its monstrous complexity could only survive in
the millimeter scales now used - and then only as a marketing lever.

73's
Richard Clark, KB7QHC

979. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 22:43:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u509j1l2f7k3ls7h3q5fmobrqv77hcvhsk@4ax.com>
Source record: 70176
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 17:04:01 -0500, Matt Osborn <> wrote:

>No Richard, you have apparently run out of cogent thoughts
reveals the inverted irony of another projection:
>have now resorted to attacking me personally instead of addressing the
>issue.

Hi Matt,

Such intemperate whimpering.

73's
Richard Clark, KB7QHC

980. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 22:48:05 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <pf19j1hehs70vnn4othl33n3115g9e0262@4ax.com>
Source record: 70178
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 09:50:09 -0500, Matt Osborn <> wrote:

>Anyone who has a basis for ethical and moral behavior must bow to the
>authority of that basis. Some call that authority G-d, atheists
>refuse to identify that authority, or simply identify it as science or
>knowledge.
>
>We are not so fortunate that we can believe in the possibility of
>moral or ethical behavior without also presenting a basis for that
>behavior.

If that's the case, then I am my own authority since they are my
ethics and morals.

981. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 22:52:25 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <vk19j11he6ad31lokok7vpgjppub75t42i@4ax.com>
Source record: 70179
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 10:02:33 -0500, Matt Osborn <> wrote:

>I believe such a person isn't a Christian, or Jewish or a member of
>any other well known religion.
>
>I myself do not adopt the literal trappings of any known religion.
>Nevertheless, I do recognize the existence of an authority greater
>than my own upon which I have formed my system of beliefs. I can find
>no substantial difference between my faith and that of those who may
>identify themselves with any other religious organization.

If that works for you, fine. There are, however, some who would make
it mandatory for everyone to attend church every Sunday.

982. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 22:56:41 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <op19j1h2efhkkvk9lokp7mv4j1243c6u21@4ax.com>
Source record: 70180
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 13:57:36 -0400, "Vito" <vito@crosslink.net> wrote:

>"Uncle Ted" <malican40@verizon.com> wrote
>> If not an atheist, what do *you* call a person that doesn't believe in
>> some big sky fairy called "God", or that some Jew-on-a-stick died and
>> came back to life some two thousand years ago, or any other deity for
>> that matter?
>
>"Agnostic". Look it up. An athiest denies the existence of any god; an
>agnostic says it is impossible to know.

"Agnostic" is a cop-out word for someone that doesn't want to admit
that they're an atheist. It just sounds nicer. If you say that it's
impossible to know if there is a god or not, you obviously don't
acknowledge the existence of any god. That makes you an atheist.

983. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-23 22:57:16 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11j923cs6msko4c@corp.supernews.com>
Source record: 70177

Richard Clark wrote:
> On Fri, 23 Sep 2005 16:30:58 -0500, "David G. Nagel" <nagel@core.com>
> wrote:
>
>
>>The thought occurs to me that depending on the number of iterations you
>>take the fractal equation to the longer the length of the fractal. If
>>you work the length enough you will get both resonance and impedance
>>match out of a fractal antenna. Maybe that's how they work.
>
>
> Hi David,
>
> Common experience teaches us that a bent clothes hanger replacement
> for an automotive antenna works too, but this reveals nothing of why
> beyond the commonplace explanations available for the last 100 years.
>
> I covers length and iterations count and ... Which is more work and
> more results offered by the entire field of fractals. To what end?
> That this topic, due to its monstrous complexity could only survive in
> the millimeter scales now used - and then only as a marketing lever.
>
> 73's
> Richard Clark, KB7QHC
Richard;

I just like this topic because it brings out something in everyone. What
I don't know, I just like it. HI HI...

Dave WD9BDZ

984. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 00:11:18 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <4769j1p0sjk46fbbkbgqkmdcv1m2rhehel@4ax.com>
Source record: 70182
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 18:44:29 -0500, Matt Osborn <> wrote:

>On Fri, 23 Sep 2005 22:17:42 GMT, "Kï¿½HB" <groupk0hb@earthlink.net>
>wrote:
>
>>
>><Matt Osborn> wrote
>>
>>> To rely upon faith requires an explicit acknowledgment of an unknown
>>> power greater than oneself.
>>
>>No it doesn't. It simply requires an explicit acknowledgement of "we haven't
>>learned the reason yet". No need for superstitions.
>
>There is never a need for superstitions. Recognizing the unknown is
>good enough for me.

Wise men stare at the unknown and boldly search for answers and ask
"WHY?". Others fall on their hands and knees and start babbling, "God
did it! God did it!" - Thus spake god's creator.

985. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 00:11:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1127520851_10707@spool6-east.superfeed.net>
Source record: 70181
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> On what basis may an atheist be ethical or moral?

If he rationally treats others the way he wants to
be rationally treated. Atheists are obviously more
rational than people who believe in an unproven
supernatural.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

986. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 01:34:13 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <nf6dnUDKYcHGMKneRVn-rg@comcast.com>
Source record: 70183

I believe that Chip still reads this NG. I'm sure he will contact you or
Post a reply if he's around. 'Chip' = Dr. Cohen [Fractal expert]

Rod Maupin wrote:
> Yes, I have at times amused myself by looking at fractal patterns. Not in a
> few years though. What was interesting is that I had never heard of a
> fractal antenna before.
>
>

987. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 01:49:41 UTC
From: N2EY@AOL.COM
Message-ID: <1127526581.429701.175500@g43g2000cwa.googlegroups.com>
Source record: 70184
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:
> Matt Osborn wrote:
> > Not really. I'm still waiting for an atheist
> > to explain how it is
> > that he can have a moral point of view and
> > not have a religious dogma.
>
> You really need to study Ayn Rand's take on Objectivist ethics.

Hello Cecil,

That's very good advice!

> The objective thing to do is to grant to everyone the rights
> that you require for yourself, no matter what you believe. It
> bears a close resemblence to the golden rule.

Sounds identical to the golden rule to me!

IIRC, a fellow named Hobbes worked out the golden rule by pure logic a couple of hundred years ago.

While Objectivism has some obvious defects and shortcomings, it is well worth studying because it develops a coherent system of ethics with a minimum of reference to unprovable claims.

For example, Objectivism has as one of its basic concepts that each person has certain basic rights as a human being, such as each person owning their own life. All forms of involuntary servitude, except as punishment for a crime, are completely immoral under Objectivist ethics.

Another Objectivist concept is the initial innocence of each person. The concept of inherited guilt, usually called 'original sin' by many religions, is incompatible with Objectivist ethics. How can anyone be held responsible for the actions of a long-dead-before-you-were-born ancestor?

--

Of course a lot of this discussion circles around because of faulty logic and too-loose definitions. For example, what, exactly, is an atheist? What, exactly, is a religion?

Suppose someone believes in God - but also believes that one of God's most basic commandments to human beings is that they *use* their

brains, logic and experiences to know His creation and their purpose in it, and that they must continually question anyone who tells them they must accept anything without proof.

What do you call such a person?

73 de Jim, N2EY

988. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 01:52:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b9c9j191jactl9bued9o8hcobjc02q6cud@4ax.com>
Source record: 70185

On Fri, 23 Sep 2005 21:34:13 -0400, Ham op <hamop@comcast.net> wrote:
>I believe that Chip still reads this NG
more likely his proxy.

Your name wouldn't be Phil, would it? ;-)

989. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 02:26:19 UTC
From: Gene Rodgers <oldcodger@verizon.net>
Message-ID: <fP2Ze.549$il4.375@trnddc04>
Source record: 70186

Try an antenna tuner to balance it out.

gene

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11j8ob2r2sekq63@corp.supernews.com...
> Thanks Tor. I have the same antenna, an HF6V. You're right. It is
> touchy on some of the bands.
>
> Rod
>
>

990. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 02:39:39 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <L%2Ze.3668$Ba2.1543@newssvr27.news.prodigy.net>
Source record: 70187
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<N2EY@AOL.COM> wrote in message
news:1127526581.429701.175500@g43g2000cwa.googlegroups.com...
> Suppose someone believes in God - but also believes that one of God's
> most basic commandments to human beings is that they *use* their
> brains, logic and experiences to know His creation and their purpose in
> it, and that they must continually question anyone who tells them they
> must accept anything without proof.
>
> What do you call such a person?
>
> 73 de Jim, N2EY
>

When I refer to him I usually call him either I or Me. I've also found he's
not always as bright as he sometimes believes himself to be.

Harold Burton

991. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 04:31:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh2krs$441$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70188

"> >So you like to amuse yourself by producing useless pretty patterns
on
> >the screen. ;o)
>
> Reg, there are more practical applications.

================================

Owen, yes, I know.

But radio antennas is not one of them.

Do you know of one which performs any better than any other sort of
antenna?

Just calling it a fractal doesn't make it marvellous although, for
CB-ers, it may increase the sales volume.

Remember the E-H antenna which abused the works of James Clerk
Maxwell? Fractals fall into the same category. They serve only to
increase the complexity of modelling programs!

Reg.

992. The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 06:21:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh2r8j$j3g$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70190

Copied from the UK Amateur Radio Newsgroup.

==========
"Joe McElvenney" wrote
> Randall and Boot's cavity magnetron
> didn't really come onto the scene until about 1940.
>
==========

R & B's cavity magnetron was developed at Birmingham University in the midst of the air raids on that industrial city. We can imagine R & B having to hide under the workbench whenever a descending bomb was heard, culminating in a loud bang and broken glass.

The ingenious device generated a peak pulse power of 50 kilowatts at 3000 MHz. Pulse repetition frequency 400 Hz. Pulse width 1 microsecond. So far as I can remember there were 6 or 8 cavities milled into the copper block. Alternate anodes surrounding the cathode, and close to it, were strapped together at their ends via copper bars. The block diameter was about 2" and about 1" thick. The magnet was a U-shape with pole-pieces which closely fitted the flat ends round the block such that the magnetic field was parallel to the cathode.

Because the luftwaffer in 1940/1 had more bombers than the RAF, and in view of its potential as a war weapon, Churchill personally banned installation in RAF aircraft in case the top-secret device should be shot down over Germany and fall into the hands of German scientists and engineers.

So Churchill handed the cavity magnetron to Roosevelt as a free gift in return for 50 rusty, old, WW1 destroyers. The manufacturing capacity of the US radio industry far exceeded that of the UK. Not to be outdone, the Americans soon produced a 10,000 MHz version.

I first held one in my hands in 1945 by which time centimetric radar had been installed in RAF Catalina and Sunderland flying boats on convoy-escort duties in the Battle of the Atlantic. By 1945 German submarine crews were on suicide missions like kamikazi pilots, only 1 U-boat in 10 returned to base.

There are more than 100,000 merchant ship and U-boat crew-members sharing Davy Jones locker at the silent bottom of the North Atlantic Ocean. Thus was the ferocity of the war.

Once having detected a centimetric radar beam, and being accurately located themselves, submarine commanders preferred to remain on the

surface, uncover the guns, and fight it out, day or night.

During most of the war there had been little effect on German industrial production by RAF raids. Many bombs fell on open fields and sometimes killed cattle. But by 1944 RAF navigatigators had maps of rivers and cities laid before them. More than a 1000 heavy bombers, Lancasters, could be put into the air, night after night.

With radar they couldn't miss whole cities and individual districts. Nevertheless on one occasion more than 100 bombers, complete with crews, failed to return to base. Such occurrences greatly exceeded the capacity of factories to produce them and to train aircrews.

During the last 12 months of the war, radar equipped RAF bombers killed more German civilians than died in the concentration camps. Hiroshima and Nagasaki, which came shortly after, were just chicken feed. Air Marshal "Bomber" Harris was never knighted for services rendered.

The main beneficiaries of R & B's invention of the cavity magnetron, done amid the high-explosives and incendiaries falling on Birmingam, have been the Japanese and other Far Eastern peoples who have manufactured many millions of cheap, reliable, microwave ovens.

And of course the many millions of people like you and I who benefit from daily hot meals. I detest barbiques.

There was held in the Kensington, London, Science Museum, the original prototype of the cavity magnetron without its magnet. It was in a securely locked mahogany and glass case and looked, as I recollect, like a small dirty can of baked beans with things sticking out of it. It may still be there.

Makes a change from so-called SWR meters.

Reg, G4FGQ.

993. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 06:46:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h2t9j1punccendt8ek61o5qkqkjm4fggs4@4ax.com>
Source record: 70191

On Sat, 24 Sep 2005 06:21:07 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Makes a change from so-called SWR meters.

Ah Reggie!

Hardly, SWR was the second most considered technical hurdle in the
development of RADAR.

73's
Richard Clark, KB7QHC

994. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 06:55:16 UTC
From: Cmdr Buzz Corey <me@that.moc>
Message-ID: <26WdncROlerDdKneRVn-iQ@gbronline.com>
Source record: 70189
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> If your point is that atheists know that there is a G-d but deny it,
> I could accept that argument.

An atheists that knows there is a God? Isn't that one of them expoy morons?

So why are you afraid to actually type the word God? What does the - do?

995. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 08:04:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh31aijis1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70192

> >Makes a change from so-called SWR meters.
>
> Ah Reggie!
>
> Hardly, SWR was the second most considered technical hurdle in the
> development of RADAR.
>
> 73's
> Richard Clark, KB7QHC

==========

Ah Rich!, Yet again you deliberately distort my meaning in your
amusing game of 0ne-Upmanship.

For the benefit of lurkers, there's a great difference between meters
which purport to measure SWR at HF, but do no such thing and tell
lies, and probes inserted in waveguides at 3 GHz which tell the truth.

Reg.

996. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 12:44:19 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <DSbZe.1437$9E2.1176@newssvr11.news.prodigy.com>
Source record: 70193
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cmdr Buzz Corey wrote:
> So why are you afraid to actually type the word God? What does the - do?

Some religions forbid writing the name of God. I once
asked a Jewish person that I worked with how to spell
Yahweh. He refused to speak it or write it.
--
73, Cecil http://www.qsl.net/w5dxp

997. highwind,rohn25,stayerect???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 13:44:26 UTC
From: lorentsonci@lycos.com
Message-ID: <qnlaj1h293ipshn3ssqg9msun2f00891e2@4ax.com>
Source record: 70194

What should a rohn 25 properly guyed, 50ft tower with two meter/440
ground plane antennas be able to 'handle high wind wise'??
Watching the news/weagther, I feel some will 'bite the dust'.
Appreciate your input. cl.

998. Re: highwind,rohn25,stayerect???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:13:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wadZe.2605$G64.548@newssvr12.news.prodigy.com>
Source record: 70195

lorentsonci@lycos.com wrote:
> What should a rohn 25 properly guyed, 50ft tower with two meter/440
> ground plane antennas be able to 'handle high wind wise'??
> Watching the news/weagther, I feel some will 'bite the dust'.
> Appreciate your input. cl.

A properly guyed (2 sets of 3) 50 ft. Rohn 25 in a
minimum recommended configuration will support 10.5
sq. ft. of antenna at 70 mph or 5 sq. ft. at 110 mph
according to my Rohn drawings.
--
73, Cecil http://www.qsl.net/w5dxp

999. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:14:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <52130$43355f54$97d56a13$16572@ALLTEL.NET>
Source record: 70196
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Your lack of education is showing. It is a Jewish thing, the name of God is never written in any form that can be erased.

"Cmdr Buzz Corey" <me@that.moc> wrote in message news:26WdncROlerDdKneRVn-iQ@gbronline.com...
> So why are you afraid to actually type the word God? What does the - do?

1000. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:20:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <GgdZe.2608$G64.198@newssvr12.news.prodigy.com>
Source record: 70197
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cmdr Buzz Corey wrote:

> Fred W4JLE wrote:
>> New Orleans was filled with perversion, pimps, homosexuals, Jezebels,
>> and all manner of sins.
>
> Along with a lot of good people as well, same with the Texas coast.

Naaaahhhhh, God loves Republicans and George Bush so He only
hit Texas with the milder Western side of Rita. Those Louisiana
Democrat sinners got the nasty Eastern side. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1001. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:29:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <VodZe.2610$G64.2073@newssvr12.news.prodigy.com>
Source record: 70198
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:

> Your lack of education is showing. It is a Jewish thing, the name of God is
> never written in any form that can be erased.

That's kinda strange since "God" is a title, NOT a name.
Do they also refuse to write "Lord", I wonder? Do they
refuse to write "Elohim", i.e. the Genesis Gods? How about
"Jehovah" and "Allah"?
--
73, Cecil http://www.qsl.net/w5dxp

1002. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:36:42 UTC
From: N2EY@AOL.COM
Message-ID: <1127572602.342832.210830@g49g2000cwa.googlegroups.com>
Source record: 70199
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:
> Do they
> refuse to write "Elohim", i.e. the Genesis Gods? How about
> "Jehovah" and "Allah"?

http://tinyurl.com/cd6h6

73 de Jim, N2EY

"Always look on the bright side of life"

1003. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:39:45 UTC
From: Mike <meclsisin@mail.ircsd.org>
Message-ID: <4335676b$1@news.usenetzone.com>
Source record: 70200

I'll tell you what...why don't you stop talking about him in this room,
since it is off-topic and then you don't have to worry about preserving the
"name of God."

<Matt Osborn> wrote in message
news:jfoaj1duhbott9vbo7do911kkvolu1l3uc@4ax.com...
>
> There are those who have taken a vow to protect and preserve the
> written name of G-d. Since this is nearly impossible when using
> electronic media, I do not write the name.
>
> It's a simple courtesy that costs me nothing.
>
>
> -- msosborn at msosborn dot com

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1004. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:46:31 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1c2e7$433566f0$97d56a13$17918@ALLTEL.NET>
Source record: 70201
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

My favorite was a short story years ago called "All the names of God". Seems a group of monks in Tibet or some other eastern place were writing all the possible perturbations of their alphabet.

Having completed the task the universe would end as mans purpose had been fulfilled. At the rate they were going the task would be completed in about another 400,000 years or so... That was until an enterprising computer salesman showed them that with a sufficiently large order from his company, the task could be finished in 3 weeks.

As the end of the run came near, the salesman decided to get out of Dodge, as he did not want to deal with a group of pissed off monks when the universe didn't end. Besides he had a hell of a commision to spend!

The last line was a classic "As he looked out the window of the airplane, silently, one by one, the stars were going out".

"Cecil Moore" <mycall@arrl.net> wrote in message
news:VodZe.2610$G64.2073@newssvr12.news.prodigy.com...
> Fred W4JLE wrote:
>
> > Your lack of education is showing. It is a Jewish thing, the name of God
is
> > never written in any form that can be erased.
>
> That's kinda strange since "God" is a title, NOT a name.
> Do they also refuse to write "Lord", I wonder? Do they
> refuse to write "Elohim", i.e. the Genesis Gods? How about
> "Jehovah" and "Allah"?
> --
> 73, Cecil http://www.qsl.net/w5dxp

1005. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:57:09 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8797c$4335696e$97d56a13$18704@ALLTEL.NET>
Source record: 70202
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Jews do not casually write any Name of God. This practice does not come from the commandment not to take the Lord's Name in vain, as many suppose. In Jewish thought, that commandment refers solely to oath-taking, and is a prohibition against swearing by God's Name falsely or frivolously (the word normally translated as "in vain" literally means "for falsehood").

Judaism does not prohibit writing the Name of God per se; it prohibits only erasing or defacing a Name of God. However, observant Jews avoid writing any Name of God casually because of the risk that the written Name might later be defaced, obliterated or destroyed accidentally or by one who does not know better.

The commandment not to erase or deface the name of God comes from Deut. 12:3. In that passage, the people are commanded that when they take over the promised land, they should destroy all things related to the idolatrous religions of that region, and should utterly destroy the names of the local deities. Immediately afterwards, we are commanded not to do the same to our God. From this, the rabbis inferred that we are commanded not to destroy any holy thing, and not to erase or deface a Name of God.

It is worth noting that this prohibition against erasing or defacing Names of God applies only to Names that are written in some kind of permanent form, and recent rabbinical decisions have held that writing on a computer is not a permanent form, thus it is not a violation to type God's Name into a computer and then backspace over it or cut and paste it, or copy and delete files with God's Name in them. However, once you print the document out, it becomes a permanent form. That is why observant Jews avoid writing a Name of God on web sites like this one or in BBS messages: because there is a risk that someone else will print it out and deface it.

Normally, we avoid writing the Name by substituting letters or syllables, for example, writing "G-d" instead of "God." In addition, the number 15, which would ordinarily be written in Hebrew as Yod-Heh (10-5), is normally written as Tet-Vav (9-6), because Yod-Heh is a Name. See Hebrew Alphabet for more information about using letters as numerals

<Matt Osborn> wrote in message
news:jfoaj1duhbott9vbo7do911kkvolu1l3uc@4ax.com...
> On Fri, 23 Sep 2005 23:55:16 -0700, Cmdr Buzz Corey <me@that.moc>
> wrote:
>
> >Matt Osborn wrote:
> > > If your point is that atheists know that there is a G-d but deny it,
> >> I could accept that argument.

> >
> >An atheists that knows there is a G-d? Isn't that one of them expoy
morons?
> >
> >So why are you afraid to actually type the word G-d? What does the - do?
>
> There are those who have taken a vow to protect and preserve the
> written name of G-d. Since this is nearly impossible when using
> electronic media, I do not write the name.
>
> It's a simple courtesy that costs me nothing.
>
>
> -- msosborn at msosborn dot com

1006. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 14:59:11 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6a20c$433569e8$97d56a13$18907@ALLTEL.NET>
Source record: 70203

Jesus Mike, don't get your panties in a wad...

"Mike" <meclsisin@mail.ircsd.org> wrote in message
news:4335676b$1@news.usenetzone.com...
> I'll tell you what...why don't you stop talking about him in this
room,
> since it is off-topic and then you don't have to worry about preserving
the
> "name of God."
>

1007. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 15:44:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wveZe.2622$G64.1188@newssvr12.news.prodigy.com>
Source record: 70204
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> There are those who have taken a vow to protect and preserve the
> written name of G-d. Since this is nearly impossible when using
> electronic media, I do not write the name.

But "God" is a title, not a name. There's God Yahweh, God Jehovah,
God Jesus, God Allah, God Ra, God Thor - to name just a few.
--
73, Cecil http://www.qsl.net/w5dxp

1008. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 17:09:05 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jb21o36nq8ocf@corp.supernews.com>
Source record: 70205

Reg Edwards wrote:
> Copied from the UK Amateur Radio Newsgroup.
>
> ==========
> "Joe McElvenney" wrote
>
>>Randall and Boot's cavity magnetron
>>didn't really come onto the scene until about 1940.
>>
>
> ==========
>
> R & B's cavity magnetron was developed at Birmingham University in the
> midst of the air raids on that industrial city. We can imagine R & B
> having to hide under the workbench whenever a descending bomb was
> heard, culminating in a loud bang and broken glass.
>
> The ingenious device generated a peak pulse power of 50 kilowatts at
> 3000 MHz. Pulse repetition frequency 400 Hz. Pulse width 1
> microsecond. So far as I can remember there were 6 or 8 cavities
> milled into the copper block. Alternate anodes surrounding the
> cathode, and close to it, were strapped together at their ends via
> copper bars. The block diameter was about 2" and about 1" thick. The
> magnet was a U-shape with pole-pieces which closely fitted the flat
> ends round the block such that the magnetic field was parallel to the
> cathode.
>
> Because the luftwaffer in 1940/1 had more bombers than the RAF, and in
> view of its potential as a war weapon, Churchill personally banned
> installation in RAF aircraft in case the top-secret device should be
> shot down over Germany and fall into the hands of German scientists
> and engineers.
>
> So Churchill handed the cavity magnetron to Roosevelt as a free gift
> in return for 50 rusty, old, WW1 destroyers. The manufacturing
> capacity of the US radio industry far exceeded that of the UK. Not to
> be outdone, the Americans soon produced a 10,000 MHz version.
>
> I first held one in my hands in 1945 by which time centimetric radar
> had been installed in RAF Catalina and Sunderland flying boats on
> convoy-escort duties in the Battle of the Atlantic. By 1945 German
> submarine crews were on suicide missions like kamikazi pilots, only 1
> U-boat in 10 returned to base.
>

> There are more than 100,000 merchant ship and U-boat crew-members
> sharing Davy Jones locker at the silent bottom of the North Atlantic
> Ocean. Thus was the ferocity of the war.
>
> Once having detected a centimetric radar beam, and being accurately
> located themselves, submarine commanders preferred to remain on the
> surface, uncover the guns, and fight it out, day or night.
>
> During most of the war there had been little effect on German
> industrial production by RAF raids. Many bombs fell on open fields and
> sometimes killed cattle. But by 1944 RAF navigatigators had maps of
> rivers and cities laid before them. More than a 1000 heavy bombers,
> Lancasters, could be put into the air, night after night.
>
> With radar they couldn't miss whole cities and individual districts.
> Nevertheless on one occasion more than 100 bombers, complete with
> crews, failed to return to base. Such occurrences greatly exceeded the
> capacity of factories to produce them and to train aircrews.
>
> During the last 12 months of the war, radar equipped RAF bombers
> killed more German civilians than died in the concentration camps.
> Hiroshima and Nagasaki, which came shortly after, were just chicken
> feed. Air Marshal "Bomber" Harris was never knighted for services
> rendered.
>
> The main beneficiaries of R & B's invention of the cavity magnetron,
> done amid the high-explosives and incendiaries falling on Birmingam,
> have been the Japanese and other Far Eastern peoples who have
> manufactured many millions of cheap, reliable, microwave ovens.
>
> And of course the many millions of people like you and I who benefit
> from daily hot meals. I detest barbiques.
>
> There was held in the Kensington, London, Science Museum, the original
> prototype of the cavity magnetron without its magnet. It was in a
> securely locked mahogany and glass case and looked, as I recollect,
> like a small dirty can of baked beans with things sticking out of it.
> It may still be there.
>
> Makes a change from so-called SWR meters.
> ----
> Reg, G4FGQ.
>
>
Reg;

Thank you for your report. And thank your country men for the many
inventions that they have contributed to mankind.

Dave, WD9BDZ

1009. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 17:09:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <spvaj159nlbgppntqivuifckintk7snsek@4ax.com>
Source record: 70206

On Sat, 24 Sep 2005 08:04:34 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>> >Makes a change from so-called SWR meters.
>>
>> Ah Reggie!
>>
>> Hardly, SWR was the second most considered technical hurdle in the
>> development of RADAR.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>==========
>
>Ah Rich!, Yet again you deliberately distort my meaning in your
>amusing game of 0ne-Upmanship.
>
>For the benefit of lurkers, there's a great difference between meters
>which purport to measure SWR at HF, but do no such thing and tell
>lies, and probes inserted in waveguides at 3 GHz which tell the truth.

Ah Reggie,

Yet again, you deliberately distort my meaning in your amusing game of
One-Downmanship.

For the benefit of lurkers, there's absolutely no difference between
meters which purport to measure SWR at any frequency. You are simply
fumbling around with one of your conceits, a troll in the lingua
franca of the Internet.

What you now describe was a flicker in time between bombs and crashing
glass that was quickly discarded as an awkward technique when RADAR
went into production. Such troglodyte methods were long gone before
you even wrapped your mitts around a magnetron.

If we pursue this with your absurd reductionist habit of arguing blind
absolutes in place of practical reality (something Lord Kelvinator
would sneer at as a foppish mannerism); then what you describe as
"probes" are measuring nothing about SWR but are doing what any probe
could accomplish: measuring a common unit of voltage, or current (and
only by inference of the actual through rectification and filtering).
The SWR only arrives by a second (or significantly more than two)
reading, and then FURTHER only after various calculations. Even then,

barring calculations (something no one does except squinty-eyed scientists and trolls), those same METERs employed were marked in SWR. Imagine, within very few months of RADAR emerging from the lab, SWR METERs ruled the production line, and the field kit. And to be sure, did they measure SWR? As much as any instrument and to your fulminating frustration, to no obvious difference that would be observed by Maxwell's demon (or Schrodinger's cat) craftily turned to this mischievously scientific validation.

SWR arrived in its full glory of attention with RADAR. They were born simultaneously and absolutely no one gave a fig before on this topic. Further, it taught a generation of engineers the importance of matching production designs (which had been long inbred into the AC power production community - simply a rediscovery of a "truth" that had never been lost). This was probably because the consequence of SWR is so dramatic in the 100s of KW, when it occurs in the locality of the workbench in a system as small as the span of your arms. Even the Old Wives notice it if they, in error, try to microwave a product wrapped in a crumpled foil such as butter is wrapped. Their startled reaction evokes an immediate response, just as my post caused your knee to jerk reflexively beneath your apron.

73's
Richard Clark, KB7QHC

1010. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 17:29:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5s2bj1pgb8ni8ll9fv80e628k8micmu80f@4ax.com>
Source record: 70207
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 24 Sep 2005 07:36:42 -0700, N2EY@AOL.COM wrote:
>http://tinyurl.com/cd6h6
>73 de Jim, N2EY

Hi Jim,

Thanx, and a tip of the hat for directing me to the authority in logic
with regard to arguing who's an atheist (re: current correspondence)
that is so aptly aped at your link with:

>FRANCIS:
> Why are you always on about women, Stan?
>STAN:
> I want to be one.
>REG:
> What?
>STAN:
> I want to be a woman. From now on, I want you all to call me 'Loretta'.
>REG:
> What?!
>LORETTA:
> It's my right as a man.
>JUDITH:
> Well, why do you want to be Loretta, Stan?
>LORETTA:
> I want to have babies.
>REG:
> You want to have babies?!
>LORETTA:
> It's every man's right to have babies if he wants them.
>REG:
> But... you can't have babies.
>LORETTA:
> Don't you oppress me.
>REG:
> I'm not oppressing you, Stan. You haven't got a womb!
> Where's the foetus going to gestate?! You going to keep it in a box?!
>LORETTA:
> [crying]
>JUDITH:
> Here! I-- I've got an idea. Suppose you agree that he can't actually have babies,
> not having a womb, which is nobody's fault, not even the Romans',
> but that he can have the right to have babies.

>FRANCIS:
> Good idea, Judith. We shall fight the oppressors for your right to have babies, brother. Sister. Sorry.

73's
Richard Clark, KB7QHC

1011. Re: The Correct Polarization Saves Lives During WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 18:02:42 UTC
From: Jay in the Mojave <jay123a@qnet.com>
Message-ID: <11jb5674t2pb218@corp.supernews.com>
Source record: 70208

Hello Walt:

Great story! I printed the story out and passed it around at the local coffee shop yesterday. A collection of distinguished radio enthusiasts. Everyone liked it. I think now some are building loop antennas.

I just saw a story on Amelia Airheart on the History channel I think, it showed a DF Loop Antenna being installed on top the fusalog of their Lockheed Electra Aircraft. The Training secession for the DF Equipment turned into a photo shoot instead of a hands on training session. According to the reporter.

Great story.

Id bet there would be a market for a book of great stories like this one and the one on the Beverage antenna. Please send more.

Jay in the Mojave

Walter Maxwell wrote:

> During WW2, Prose Walker, W4BW, (then W2CXA) in 1942 became Chief of the
> Radio Security Center (RSC) of FCC's RID, located in the Dillingham Building,
> Honolulu. (Long after WW2 Walker was Chief of the Amateur Division of the FCC,
> succeeded by John Johnston, W3BE, President of QCWA.) In his position as Chief
> RSC Walker learned that many military aircraft and its personnel were being lost
> at sea while traveling from the U.S. Mainland to Hawaii. There were two reasons
> for their being lost, 1) 'navigationally impaired' pilots (bureaucratese for
> 'lost'), and 2) totally drained fuel tanks. There was naturally a limit to the
> size of the fuel tanks, but what caused the pilots to become navigationally
> impaired? That point preyed on Walker's mind, and on investigating he discovered
> a deplorable situation that needed fixing. Here's what he found.
> At the Boeing aircraft plant in Seattle they were building bombers as fast
> as possible. Dozens of green flight teams just out of flight school were
> awaiting their new aircraft, and anxious to get aboard and proceed to the South
> Pacific area as soon as possible. The navigators and radio operators were taught
> how to use the loop direction finders that were standard equipment on the
> aircraft. But they were never told that loop DF's were incapable of obtaining
> reliable directional information from signals propagated by sky waves. The DF's
> aboard the aircraft were capable of delivering reliable data only when the
> electromagnetic energy in the received signals is vertically polarized, but the
> navigators and radio ops didn't know that. Unfortunately for them, on reflection
> and refraction through the ionosphere, a linearly-polarized wave is converted
> into an elliptically-polarized wave, resulting in a continual shift in the null
> obtained by the loop DF as the polarization angle of the incoming signal rotates
> elliptically during propagation. Consequently, once the aircraft has left the

> mainland, and can no longer receive the vertically polarized waves from AM
> broadcast stations, the only reception remaining is from sky waves propagated
> far beyond the range of the ground waves of the AM stations. Therefore, bearings
> taken from the loop DF's aboard the aircraft when at sea beyond the ground wave
> signal were useless. The only remaining means for the navigator to determine the
> position of the aircraft was through celestial navigation, using readings from
> the sun or stars. The situation gets pretty bad on cloudy days, and that's when
> the pilots became navigationally impaired.
> At this point Walker came up with a solution that ended the era of lost
> aircraft flying between the mainland and Hawaii. Fortunately, every FCC
> monitoring station in the U.S., Hawaii, Alaska, and Puerto Rico had Adcock
> direction finders as standard equipment. Adcocks, as you probably already know,
> are susceptible only to the vertical component of the arriving wave, regardless
> of its angle of polarization. Therefore, instead of constantly wandering, as
> with the loop DF, the null obtained appears at constant angle on the Adcock
> scale, even though the angle of polarization of the arriving wave is continually
> rotating elliptically. In other words, Adcocks give accurate directional
> information obtained from sky waves. Walker's reasoning was that triangulation
> from bearing measurements obtained by the FCC Adcocks taken on signals
> transmitted from the lost aircraft could determine its precise location, and
> thus determine a course to fly directly toward Hickam Field in Honolulu. The
> problem then was how to organize the communications to achieve the necessary
> procedure. Walker organized it in this manner:
> The CAA (then the Civil Aeronautics Administration) had a terminal in
> Honolulu with facilities for communicating with all aircraft. A direct teletype
> connection was setup between the CAA and the RSC, which had a kilowatt
> transmitter used to communicate with the secondary monitoring stations on all
> the Islands, each of which had Hallicrafters HT-9 transmitters. When the pilot
> of the aircraft determined they were lost, the radio operator signals the CAA,
> who instantly puts the aircraft's frequency on the teletype and rang its bell,
> alerting the RSC operator of the situation. The RSC operator then sends the
> following message to all secondary stations that continuously monitor the RSC
> frequency: "LOS LOS LOS 4250 4250 4250," where LOS meant lost aircraft and 4250
> was the frequency being transmitted by the aircraft. The operators of the Adcock
> DF stations immediately tune to the 4250 KHz frequency, hears the aircraft, and
> begins taking continuous bearings. The aircraft is sending long dashes, MO MO
> MO, to enable the DF operators to be certain they're hearing the right signal,
> and obtain a satisfactory bearing angle on a moderately constant signal.
> As each bearing is taken by all stations, the bearing angles are
> transmitted to RSC, where a great circle map of the entire Hawaiian area is
> hanging on the wall. A compass rose is printed on the map at the location of
> every monitoring station in the Islands, with a hole in the center of the rose
> through which a weighted string is hung. A pin is attached to the opposite end
> of the string to secure the string at the desired point on the map, with the
> string stretched over the angle on the compass rose indicating the angle of the
> bearing obtained by that particular station. As the strings representing each
> station reporting are secured they intersect at the point indicating the
> location of the lost aircraft, the intersection point called a 'cocked hat'. It
> was usual for the aircraft's position to be determined within ten minutes after
> the pilot alerted the CAA of its being lost.

> After the aircraft's position is located it is then given a course to fly
> toward Hickam Field, and the bearing measurements are reported continually until
> the pilot can see the Field. During this time the aircraft's location is
> followed all the way in to the Field, thus verifying the accuracy of the bearing
> measurements and the pilot's success in following the directions.
> Once Walker's plan was in operation no more aircraft were lost while flying
> between the mainland and the Hawaiian Islands. In 1943 alone, 273 aircraft were
> saved by the FCC Adcocks, and more than 600 were saved during the duration of
> the War.
> Unfortunately, planes were continuing to be lost on the run between Hawaii
> and the South Pacific, so Walker was invited by the Military to investigate.
> What he found was almost unbelievable. The Army Air Corps was using Mercator
> Projection maps for those runs, unaware that using maps of that projection
> produced directional errors of humongous and fatal proportions. On Walker's
> advice, once they acquired new maps with great circle projection, the number of
> lost planes dropped to zero.
> This is just one of the stories of how the FCC assisted in the ending of
> WW2. I was privilged to have been one of the bearing takers.
>
> Walt, W2DU

1012. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 18:07:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh44knofl1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70209

Rich, you sure have an extensive vocabulary.

But try as I can, I can't make any sense out of your long message about what can only be a trivial matter of your chosen ideas of gamesmanship.

Kaput! I give up.

Yours, Punchinello, G4FGQ.

1013. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 18:27:02 UTC
From: Mike <meclsisin@mail.ircsd.org>
Message-ID: <43359cb7@news.usenetzone.com>
Source record: 70210

Isn't a curtsey, what little girls do and women before a queen?
This is off-topic for all the newsgroups that it is being posted on.
Take it to e-mail.

<Matt Osborn> wrote in message
news:pj5bj1lr49s2kir8srq5aaa1lp9dgc0dg1@4ax.com...
>
> I don't defend the practice, I merely observe it as a curtsey.
>
>
> -- msosborn at msosborn dot com

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1014. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 18:30:23 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dh45vv$o4l$1@mail.specsol.com>
Source record: 70211

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:

> > >Makes a change from so-called SWR meters.
> > >
> > > Ah Reggie!
> > >
> > > Hardly, SWR was the second most considered technical hurdle in the
> > > development of RADAR.
> > >
> > > 73's
> > > Richard Clark, KB7QHC

> ================================

> Ah Rich!, Yet again you deliberately distort my meaning in your
> amusing game of 0ne-Upmanship.

> For the benefit of lurkers, there's a great difference between meters
> which purport to measure SWR at HF, but do no such thing and tell
> lies, and probes inserted in waveguides at 3 GHz which tell the truth.
> ----
> Reg.

Sorry, I don't see any difference between making voltage measurements
with a directional coupler and calculating SWR through meter calibration
and making voltage measurements on a slotted line and calculating SWR
with a calculator or pencil and paper.

Best I can tell is you are saying there is no such thing as a SWR meter.

That's like saying there is no such thing as an airspeed meter in an
airplane; the meter really measures air impact pressure.

If that is your point, so what?

--
Jim Pennino

Remove .spam.sux to reply.

1015. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 18:33:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh4668$pj0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70212
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

It's quite possible, at this stage of the art, for a female to have a
virgin birth. Even a clone of herself.

A male's sperm is unecessary and is redundent.

In the near future it may need male doctors to do what is necessary.
When females can organise things the situation will slightly change.
Males will be entire redundent except for recreational purposes. They
will then fade away into history.

But all this will not solve the problem of the illegal occupation of
Iraq.

Reg.

1016. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 18:44:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8c6bj1tc4q17soe0k1cdn4ul41rrvdg7cv@4ax.com>
Source record: 70213

On Sat, 24 Sep 2005 18:07:19 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>But try as I can, I can't make any sense out of your long message

Ah Reggie,

As Dr. Johnson would paraphrase himself "claims of illiteracy is the
last refuge of the troll." [Not to deny that you are in plenty of
company - but you would shrug off that association.]

This is notable in that you assert:
>about what can only be a trivial matter
which, of course, means you understood enough not to be able to deny
Lord Kelvinator harrumphing at your feigned attitude. It is an ill
fitted cloak.

>of your chosen ideas of gamesmanship.

This is the truly amusing part, you deliberately raised two topics
(nothing had to be said about SWR meters, certainly - that injection
is your trademark invitation), and you had two respondents answering
to each of them. Even the sewer rats of Rio could see that you
considered the more interesting topic as the one that you have now
three times pursued. Such are the games being played, bucko! ;-)

C'mon, if I hadn't responded you would have been sorely disappointed
and would have had to sneer at David as an american suck-up trying to
soothe an olde codger. You need a lightning rod to keep your current
flowing and your response is the thanks I get.

You're welcome, Old Son!

73's
Richard Clark, KB7QHC

1017. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 19:07:20 UTC
From: Song for Debbie H <markovREMOVETHIS@tele2.be>
Message-ID: <markovREMOVETHIS-68123E.21072024092005@nn2.swip.net>
Source record: 70214

In article <11j8iv9ofrglt2a@corp.supernews.com>,
"Rod Maupin" <gridman@ywave.com> wrote:

> I don't know, but I would like to know. I am a software developer and am
> interested in fractals.
>
> Rod KI7CQ
>
>

Have you programmed IFS by Michael Barnsley ???

Look at is as a ... markov chain ..
solve the equation with the multigrid method.

Then you have a P�HD, like mine, but 1� years later ;-)

Well, I would like to have a program that makes IFSs
on unix/linux/apple to make X x Y images
X, Y > 2000

I have one on macos 6. ;-)

--

1018. Re: "Hams to the Rescue After Katrina" MSNBC News Article ... Judaism and G-d

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 20:02:23 UTC
From: "David.Shrader" <Deacon_Dave@comcast.net>
Message-ID: <moqdnSy21Pu8LKjeRVn-iA@comcast.com>
Source record: 70215
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

I apologize for the top post.

Thanks Fred. Something useful has finally come out of this thread.

Fred W4JLE wrote:

> Jews do not casually write any Name of God. This practice does not come from
> the commandment not to take the Lord's Name in vain, as many suppose. In
> Jewish thought, that commandment refers solely to oath-taking, and is a
> prohibition against swearing by God's Name falsely or frivolously (the word
> normally translated as "in vain" literally means "for falsehood").
>
> Judaism does not prohibit writing the Name of God per se; it prohibits only
> erasing or defacing a Name of God. However, observant Jews avoid writing any
> Name of God casually because of the risk that the written Name might later
> be defaced, obliterated or destroyed accidentally or by one who does not
> know better.
>
> The commandment not to erase or deface the name of God comes from Deut.
> 12:3. In that passage, the people are commanded that when they take over the
> promised land, they should destroy all things related to the idolatrous
> religions of that region, and should utterly destroy the names of the local
> deities. Immediately afterwards, we are commanded not to do the same to our
> God. From this, the rabbis inferred that we are commanded not to destroy any
> holy thing, and not to erase or deface a Name of God.
>
> It is worth noting that this prohibition against erasing or defacing Names
> of God applies only to Names that are written in some kind of permanent
> form, and recent rabbinical decisions have held that writing on a computer
> is not a permanent form, thus it is not a violation to type God's Name into
> a computer and then backspace over it or cut and paste it, or copy and
> delete files with God's Name in them. However, once you print the document
> out, it becomes a permanent form. That is why observant Jews avoid writing a
> Name of God on web sites like this one or in BBS messages: because there is
> a risk that someone else will print it out and deface it.
>
> Normally, we avoid writing the Name by substituting letters or syllables,
> for example, writing "G-d" instead of "God." In addition, the number 15,
> which would ordinarily be written in Hebrew as Yod-Heh (10-5), is normally
> written as Tet-Vav (9-6), because Yod-Heh is a Name. See Hebrew Alphabet for
> more information about using letters as numerals
>

1019. Romans Go Home

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 20:05:27 UTC
From: N2EY@AOL.COM
Message-ID: <1127592327.758621.259180@g44g2000cwa.googlegroups.com>
Source record: 70216
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:
> On 24 Sep 2005 07:36:42 -0700, N2EY@AOL.COM wrote:
> >http://tinyurl.com/cd6h6
> >73 de Jim, N2EY
>
> Hi Jim,
>
> Thanx, and a tip of the hat for directing me
> to the authority in logic
> with regard to arguing who's an atheist (re: current
> correspondence)
> that is so aptly aped at your link with:
>
> >FRANCIS:
> > Why are you always on about women, Stan?
> >STAN:
> > I want to be one.

Greetings!

If you liked that bit, and if you ever studied Latin, this bit may
interest you:

--

CENTURION:
What's this, then? 'Romanes Eunt Domus'? 'People called Romans they go
the house'?

BRIAN (terrified, having just been caught writing graffiti on the Roman
palace wall):
It-- it says, 'Romans, go home'.

CENTURION (puzzled):
No, it doesn't. What's Latin for 'Roman'? Come on!

BRIAN:
Aah!

CENTURION (grabs Brian, holds him in a headlock):
Come on!

BRIAN:
'R-- Romanus'?

CENTURION:
Goes like...?

BRIAN:
'Annus'?

CENTURION:
Vocative plural of 'annus' is...?

BRIAN:
Eh. 'Anni'?

CENTURION:
'Romani'. 'Eunt'? What is 'eunt'?

BRIAN:
'Go'. Let--

CENTURION (twists Brian's arm):
Conjugate the verb 'to go'!

BRIAN:
Uh. 'Ire'. Uh, 'eo'. 'Is'. 'It'. 'Imus'. 'Itis'. 'Eunt'.

CENTURION:
So 'eunt' is...?

BRIAN:
Ah, huh, third person plural, uh, present indicative. Uh, 'they go'.

CENTURION:
But 'Romans, go home' is an order, so you must use the...?

BRIAN:
The... imperative!

CENTURION:
Which is...?

BRIAN:
Umm! Oh. Oh. Um, 'i'. 'I'!

CENTURION (draws short sword, holds to Brian's throat):
How many Romans!?

BRIAN:
Ah! 'I'-- Plural. Plural. 'Ite'. 'Ite'.

CENTURION:
'Ite'.

BRIAN:
Ah. Eh.

CENTURION:
'Domus'?

BRIAN:
Eh.

CENTURION:
Nominative?

BRIAN:
Oh.

CENTURION (continuing to threaten):
'Go home'? This is motion towards. Isn't it, boy?

BRIAN:
Ah. Ah, dative, sir! Ahh! No, not dative! Not the dative, sir! No! Ah!
Oh, the... accusative! Accusative! Ah! 'Domum', sir! 'Ad domum'! Ah!
Oooh! Ah!

CENTURION:
Except that 'domus' takes the...?

BRIAN:
The locative, sir!

CENTURION:
Which is...?!

BRIAN:
'Domum'.

CENTURION:
'Domum'.

BRIAN:
Aaah! Ah.

CENTURION:
'Um'. Understand?

BRIAN:
Yes, sir.

CENTURION:
Now, write it out a hundred times.

BRIAN:
Yes, sir. Thank you, sir. Hail Caesar, sir.

CENTURION:
Hail Caesar. If it's not done by sunrise, I'll cut your balls off.

Or maybe you prefer this one:

--

REG:
And what have they ever given us in return?!

XERXES:
The aqueduct?

REG:
What?

XERXES:
The aqueduct.

REG:
Oh. Yeah, yeah. They did give us that. Uh, that's true. Yeah.

COMMANDO #3:
And the sanitation.

LORETTA:
Oh, yeah, the sanitation, Reg. Remember what the city used to be like?

REG:
Yeah. All right. I'll grant you the aqueduct and the sanitation are two things that the Romans have done.

MATTHIAS:
And the roads.

REG:
Well, yeah. Obviously the roads. I mean, the roads go without saying, don't they? But apart from the sanitation, the aqueduct, and the roads--

COMMANDO:
Irrigation.

XERXES:
Medicine.

COMMANDOS:
Huh? Heh? Huh...

COMMANDO #2:
Education.

COMMANDOS:
Ohh...

REG:
Yeah, yeah. All right. Fair enough.

COMMANDO #1:
And the wine.

COMMANDOS:
Oh, yes. Yeah...

FRANCIS:
Yeah. Yeah, that's something we'd really miss, Reg, if the Romans left. Huh.

COMMANDO:
Public baths.

LORETTA:
And it's safe to walk in the streets at night now, Reg.

FRANCIS:
Yeah, they certainly know how to keep order. Let's face it. They're the only ones who could in a place like this.

COMMANDOS:
Hehh, heh. Heh heh heh heh heh heh heh.

REG:
All right, but apart from the sanitation, the medicine, education, wine, public order, irrigation, roads, a fresh water system, and public health, what have the Romans ever done for us?

XERXES:
Brought peace.

REG:
Oh. Peace? Shut up!
[bam bam bam bam bam bam bam]
[bam bam bam bam bam]

But for sheer force of irrefutable argument, you can't beat Douglas Adams' piece about the Babelfish as proof of the nonexistence of God, as quoted from Oolon Collophid's book.

OTOH you may say it's all just a load of dingo's kidneys.

73 de Jim, N2EY

1020. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 20:31:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <oliZe.3752$Ba2.1006@newssvr27.news.prodigy.net>
Source record: 70217
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Reg Edwards wrote:
> Males will be entire redundent except for recreational purposes. They
> will then fade away into history.

Maybe only get kicked out of the hive when winter approaches.
--
73, Cecil http://www.qsl.net/w5dxp

1021. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 20:55:28 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <4pebj15vgg4hnncf93r04ubu0pu6litmju@4ax.com>
Source record: 70218
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 24 Sep 2005 15:44:28 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Matt Osborn wrote:
>> There are those who have taken a vow to protect and preserve the
>> written name of G-d. Since this is nearly impossible when using
>> electronic media, I do not write the name.
>
>But "God" is a title, not a name. There's God Yahweh, God Jehovah,
>God Jesus, God Allah, God Ra, God Thor - to name just a few.

If we're one nation "under god", which god is it?

This is what Michael Newdow should have asked the Supreme Court last
year. Too bad the court weaseled their way out of a ruling based on
the child custody issue.

1022. Re: "Hams to the Rescue After Katrina" MSNBC News Article ... Judaism and G-d

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 21:16:57 UTC
From: Charlie <charlie@play.com>
Message-ID: <11jbgiqjpd3to88@news.supernews.com>
Source record: 70219
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

No need to "apologize for the Top Post" it is the new old-fashioned way of
the future...

--

Charlie

"David.Shrader" <Deacon_Dave@comcast.net> wrote in message
news:moqdnSy21Pu8LKjeRVn-iA@comcast.com...
>I apologize for the top post.
>
> Thanks Fred. Something useful has finally come out of this thread.
>
> Fred W4JLE wrote:
>
>> Jews do not casually write any Name of God. This practice does not come
>> from
>> the commandment not to take the Lord's Name in vain, as many suppose. In
>> Jewish thought, that commandment refers solely to oath-taking, and is a
>> prohibition against swearing by God's Name falsely or frivolously (the
>> word
>> normally translated as "in vain" literally means "for falsehood").
>>
>> Judaism does not prohibit writing the Name of God per se; it prohibits
>> only
>> erasing or defacing a Name of God. However, observant Jews avoid writing
>> any
>> Name of God casually because of the risk that the written Name might
>> later
>> be defaced, obliterated or destroyed accidentally or by one who does not
>> know better.
>>
>> The commandment not to erase or deface the name of God comes from Deut.
>> 12:3. In that passage, the people are commanded that when they take over
>> the
>> promised land, they should destroy all things related to the idolatrous
>> religions of that region, and should utterly destroy the names of the
>> local
>> deities. Immediately afterwards, we are commanded not to do the same to
>> our
>> God. From this, the rabbis inferred that we are commanded not to destroy
>> any

>> holy thing, and not to erase or deface a Name of God.
>>
>> It is worth noting that this prohibition against erasing or defacing
>> Names
>> of God applies only to Names that are written in some kind of permanent
>> form, and recent rabbinical decisions have held that writing on a
>> computer
>> is not a permanent form, thus it is not a violation to type God's Name
>> into
>> a computer and then backspace over it or cut and paste it, or copy and
>> delete files with God's Name in them. However, once you print the
>> document
>> out, it becomes a permanent form. That is why observant Jews avoid
>> writing a
>> Name of God on web sites like this one or in BBS messages: because there
>> is
>> a risk that someone else will print it out and deface it.
>>
>> Normally, we avoid writing the Name by substituting letters or syllables,
>> for example, writing "G-d" instead of "God." In addition, the number 15,
>> which would ordinarily be written in Hebrew as Yod-Heh (10-5), is
>> normally
>> written as Tet-Vav (9-6), because Yod-Heh is a Name. See Hebrew Alphabet
>> for
>> more information about using letters as numerals
>>
>

1023. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 21:41:07 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <T4Wdnc8gA8RuWqjeRVn-iA@comcast.com>
Source record: 70220
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>One could just as successfully argue that since "Stalin, Lenin and Mao"
>>committed crimes and they all ate bread, then by your logic people who
>>eat bread are murderers.
>
>
> Tired old argument that it may be, those atheists committed more
> mayhem between them then the world had seen before or since.

Yes, and so did those bread-eaters. Ergo, bread-eating is bad for you.

1024. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 21:46:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <yOjZe.2675$G64.1385@newssvr12.news.prodigy.com>
Source record: 70221
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:
> On Sat, 24 Sep 2005 15:44:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>But "God" is a title, not a name. There's God Yahweh, God Jehovah,
>>God Jesus, God Allah, God Ra, God Thor - to name just a few.
>
> If we're one nation "under god", which god is it?

That's the beauty of god, the one supreme being who goes
by many names in many languages - take your pick. I call
my supreme being, "Mother Nature" and it's not nice to
fool Mother Nature.
--
73, Cecil http://www.qsl.net/w5dxp

1025. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:04:00 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <ZeGdnVeR8pzMUKjeRVn-tA@comcast.com>
Source record: 70222
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>>In all cases, they believe and act according to their beliefs. That
>>>the atheists fall prey to their unrecognized beliefs cannot be
>>>disputed.
>>
>>And this is because you say so?
>
> Please counter the argument. If atheists do not have faith in their
> beliefs, then upon what basis would they judge their choices?

First of all, atheism is non-belief in deities. That's it. Anything else
you're adding to this concept is your own projection.
Second, you're equivocating and word-playing on the term "belief". What
beliefs are we talking about in atheism? Atheists don't believe in gods
- a lack of belief is not belief any more than baldness is a hair color.
So, then, what beliefs? When you define this I'll "counter the argument"

>>>I do not deny that both are fallible, however, history demonstrates
>>>that the religious, despite their failures, have improved the human
>>>condition immeasurably where atheists have been only a blight upon
>>>civilization.
>>
>>??? You have got to be kidding? What has religion possibly done for
>>anyone except provided false hope while stealing their money?
>
> Law itself is derived directly from religious thought.

Sometimes is, sometimes isn't. In the primitive tribal societies it was
much simpler to rule lawless people if you told them some god passed a
certain law and it just so happens that you have a direct communication
line with that god, so that you can interpret it. This is how religions
got born, and by a curious coincidence they all demanded money from
their followers.
Now, show how, for example, the American legal system is derived from
religion. Point out the law that makes it illegal to "covet one's ass"
or to eat shellfish or to wear clothes made from two different fabrics.

> If there were no belief system, there could be no law.

??? Look, just pulling statements out of your ass does not make them
believable. If you want to convince people, you have to present
arguments in a coherent way.

What is so difficult about law anyway? Does it really take a genius to figure out that murder, rape, slavery, genocide and theft are detrimental to a society? We need some book written by ancient goat-herders to tell us what laws are supposed to be? Besides, where, for example, does the Bible say that slavery is wrong? Oh, that's right, it doesn't - as a matter of fact, it explicitly condones it. It also condones genocide, rape, infanticide and all sorts of other behavior that nowadays is considered uncivilized (albeit only when perpetrated by the God's chosen people against infidels). Strangely enough, there is no mention of abortion in the Bible whatsoever, while one of the two wildly different versions of the Ten Commandments deals with God's humongous vanity.

> Dictatorships have no law, that's what makes them so awful.

??? You're not serious, are you?

>>Stifling science (from Galileo to stem cells), witch burning, condoning
>>slavery, religious genocide on unprecedented scale, eradicating whole
>>civilizations, oppressing women, condoning fascism and
>>national-socialism, suppressing human rights for minorities, huge waste
>>of resources that could be better spent elsewhere, contributing to
>>millions of dead from AIDS by banning contraceptives, flaming national
>>and religious intolerance from Ireland to Palestine, and I could go on
>>forever...
>>
>>As for your "blight" comment, a majority of scientists are atheists, for
>>example. The percentage increases with education. That's education *not*
>>Kansas style.
>
> Do not attribute to religion the faults of mankind. Religion is a much
> broader concept than that represented by any known religion.

No, it isn't. Your turn.

> While you're assessment of some religions at a particular point in
> time are on the mark, you overlook that same religion at an earlier or
> later point in time when it was substantially different.
>
> Like all things implemented by man, some succeed in their stated
> purpose and others fail.

Yes, I agree that most of them succeed in their primary purpose, which is allowing a class of social parasites to live off the gullible. From Christianity to Scientology. The ultimate Ponzi scheme.

73 ... WA7AA

1026. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:15:43 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Oo2dnQo1qoWNTajeRVn-vQ@comcast.com>
Source record: 70223
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

> If you can present a cogent argument for ethics and morality that
> requires absolutely no assumptions, then you could make a case for
> atheism.

This is false dichotomy. Also, as I said before, atheism is simply non-belief in gods. It does not prescribe any morals, ethics or behavior. Furthermore, if you claim that our morals are based on your scriptures, and if I then go through that "holy" book and find a contradictory example then it should be obvious that your argument falls apart. So if your Bible explicitly condones rape and slavery, how do you reconcile this with your religion-derived morals, other than through cognitive dissonance?

According to you, all atheists should be immoral by definition. It follows that prisons should be overflowing with them. Yet, strangely enough, in American prisons, Christians are over-represented, while atheists (along with Jews and Muslims) are under-represented.

Hmm, do I smell a true Scotsman fallacy coming up?

73 .... WA7AA

1027. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:16:54 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Oo2dnQU1qoXKTajeRVn-vQ@comcast.com>
Source record: 70224
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Kï¿½HB wrote:

> Everyone has to believe something. I believe I'll have another martini.

And that's pretty much the only religion I respect.

1028. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:18:39 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Oo2dnQQ1qoUiTajeRVn-vQ@comcast.com>
Source record: 70225
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Vito wrote:

> That is simply not true. An athiest is, by dictionary definition, one who
> denies the existence of any god(s).

That would be a loaded, therefore incorrect, "definition".

Atheism is non-belief in gods. There is nothing to deny. You make a
claim about gods, you fork out evidence, It's that simple.

1029. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:20:07 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Oo2dnQc1qoWKTKjeRVn-vQ@comcast.com>
Source record: 70126
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Vito wrote:

> Your vocabulary needs work. "Atheist" does not mean lack of faith. An
> athiest HAS faith ... faith that there is no god.

Just like you have faith that there is no Odin, Zeus, Allah, Shiva,
Thor, Zoroaster, etc.

Atheists believe in just one god less than you do.

1030. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:21:03 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Oo2dnQY1qoXNTKjeRVn-vQ@comcast.com>
Source record: 70127
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Vito wrote:

> Not to mention Hitler.

And we have a Godwin, all...

Btw, Hitler, if you must bring him up, was a Christian.

1031. The Tower still standing ????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:31:37 UTC
From: joey <joey_sutton@js.com>
Message-ID: <4335D3C9.5722F5A4@js.com>
Source record: 70128

http://deepsouthnet.net/tower.html

Wonder if this tower is still standing,
with guy cables anchored to oak trees
and one telephone pole ??

1032. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:38:21 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <5245a$4335d586$97d56a13$3658@ALLTEL.NET>
Source record: 70129
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Most convicts get "religion" because it looks good for the parole board.

The reason Jews are under represented is the high value placed on education by the Jewish culture. A lesson lost on the ghetto dwellers in spite of the fact the early civil rights fight was for an equal education.

As long as niggers equate education with "acting white", they will enslave themselves far more effectively that any plantation Massa of pre War of Northern Agression times.

Once a group learns education opens the doors of opportunity, they are truly free.

Your desperate grasping at straws to support atheism indicates to me, a crying out on your part for someone to lead you to the path of understanding. I shall pray for you my friend.

Even if you do not believe in God, he believes in you!

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
news:Oo2dnQo1qoWNTajeRVn-vQ@comcast.com...
> According to you, all atheists should be immoral by definition. It
> follows that prisons should be overflowing with them. Yet, strangely
> enough, in American prisons, Christians are over-represented, while
> atheists (along with Jews and Muslims) are under-represented.

1033. Re: The Tower still standing ????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:40:41 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <zvadncFNRdxzSKjeRVn-rw@comcast.com>
Source record: 70130

"joey" <joey_sutton@js.com> wrote in message
news:4335D3C9.5722F5A4@js.com...
> http://deepsouthnet.net/tower.html
>
> Wonder if this tower is still standing,
> with guy cables anchored to oak trees
> and one telephone pole ??
>

No indication of loss.
Little activity on his message forum (web site) after August 5th.
September 1st AD5TH posted this message:

AD5TH is QRV..NO DAMAGE..Power, phone and water restored Sept 1,2005

I will be calling Roll Call tonight for the Deep South Net.

Charlie - AD5TH
Website: www.ad5th.com

I assume that means he lost electric, phone and water services due to
Katrina.

gb

1034. Re: The Tower still standing ????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 22:44:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <852b2$4335d6de$97d56a13$3881@ALLTEL.NET>
Source record: 70131

Let me suggest you head down there and watch the darn thing. Why are you so fixated on this guys tower?

Are you simply waiting with baited fingers to type "Nah, Nah, I told you so"?

I do note that a number of built to good engineering practice, inspected, infected, dejected towers of various radio station came down...

"joey" <joey_sutton@js.com> wrote in message
news:4335D3C9.5722F5A4@js.com...
> http://deepsouthnet.net/tower.html
>
> Wonder if this tower is still standing,
> with guy cables anchored to oak trees
> and one telephone pole ??
>

1035. Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-24 23:22:05 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <1gnbj11s90aa1jc5j5cbrgt5i2e00o7k73@4ax.com>
Source record: 70132

I'm aware that this post is off-topic, except that it is the basis for my two previous posts that were on topic to antennas. I believe it is time to reexamine the contributions hams and commercial radio ops made to the WW2 effort as they were the operating personnel of the FCC's Radio Intelligence Division. This is their story.

With the War already raging in Europe in 1939, people at the State Department knew they were missing vital war intelligence being exchanged by radio, especially that going between Germany and South America. They queried the FCC Field Division in early 1940 about monitoring to intercept the information. The Field Division operated the original primary monitoring stations, performing regulatory and enforcement duties. However, at that time the Field Division personnel had their hands full just monitoring domestic operations, and had no time for intelligence monitoring.

Congress was alerted to the need for additional personnel and equipment for the FCC to monitor intelligence, and it approved funds for establishing a new section, the National Defense Operating section, NDO. The NDO began operations September 3, 1940, and was later upgraded to a division, becoming the Radio Intelligence Division, RID. To head the NDO, the late George E. Sterling (W1AE/W3DF) was elevated from Ass't Chief Engineer, FCC, to Chief, NDO Section, and later to Chief, RID. To obtain personnel for the new section he instructed one of his assistants, the late Harriette Koster, to search through the file cards containing the information on licensed amateur and commercial operators. She selected more than 500 operators from the file cards, and over T.J. Slowie's signature, she sent telegrams to those selected, offering them positions of Radio Operator, Ass't Monitoring Officer, and Monitoring Officer. The entire personnel for the new NDO Section, including myself, were obtained from response to those telegrams. (Harrriette later became my wife, and mother of my four children, W2WM, WB4GNR, K4JRM, and KC4UBZ (Sue's license now expired). The Congressional funding also supported building many new secondary monitoring stations throughout the country, each equipped with Hallicrafters SX-28 and S-27 receivers, and Adcock (sky-wave) direction finders. In addition, Hudson automobiles equipped with the receivers and a loop direction finder were a part of each secondary station, used for mobile close-in surveillance.

Immediately following Pearl Harbor, December 7, 1941, the FCC RID mobilized a group from both primary and secondary monitoring stations to go to the Hawaiian Islands to set up eight new secondary stations, one each on Oahu, Molokai, Kauai, Maui, and Lanai, and three on the big island of Hawaii. NDO Chief Sterling accompanied the group, of which I was a member from the primary station at Allegan, Michigan.

Extensive 24/7 mobile monitoring around the shoreline of all the islands was pursued, with the intention of finding clandestine radio operation between local Japanese loyal to Japan and Jap submarines cruising off shore. No such operations were found to occur, and no Hawaiians of Japanese descent were found to be disloyal to the U.S. During my stay on the Islands I worked at stations on

Oahu, Kauai, Molokai and Hawaii.
With Adcock direction finders at all eight secondary stations, plus the one at the primary station in Honolulu, the FCC saved the lives of thousands of military personnel and more than 600 military aircraft flying the Pacific between the Mainland and the Islands during WW2, after becoming lost due to errors in navigation with limited fuel supply. Details on how this task was performed, and how the Beverage antenna was used to receive broadcasts from JOAK Tokyo, were the subjects of my two previous posts.
Within the next few months I'll be relating some of the 'real intelligence' work involving RID operations that had a significant effect on shortening WW2.

Walter Maxwell, W2DU

1036. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 00:19:56 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <k62dnZVMSsy2cKjeRVn-1Q@adelphia.com>
Source record: 70133
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:
> On Sat, 24 Sep 2005 15:44:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>
>>Matt Osborn wrote:
>>
>>>There are those who have taken a vow to protect and preserve the
>>>written name of G-d. Since this is nearly impossible when using
>>>electronic media, I do not write the name.
>>
>>But "God" is a title, not a name. There's God Yahweh, God Jehovah,
>>God Jesus, God Allah, God Ra, God Thor - to name just a few.
>
>
> If we're one nation "under god", which god is it?

It's a Turtle. And we're actually on top of it. I don't know why all
the unbelievers have so much problem with that.

- Mike KB3EIA -

1037. Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 00:23:58 UTC
From: Rockinghorse Winner <rockinghorse@anonymous.to>
Message-ID: <y6mZe.160$Aw.2236@typhoon.sonic.net>
Source record: 70134

Up until now I have avoided considering wire antennas fed with ladder line like a full wave loop or Zepp, because I have metal rain gutters and windowframes, which the line would inevitably have to contend with. Is this a big issue? What kind of an effect do metal objects have on ladder line, and is this prohibitive to putting one up? Should I stick with coax?

Thank you.

--
R*Horse rwinner.blogspot.com

1038. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 00:44:17 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4335f2e1$0$22196$39cecf19@news.twtelecom.net>
Source record: 70135

Walter Maxwell wrote:

> I'm aware that this post is off-topic, except that it is the basis for my
> two previous posts that were on topic to antennas. I believe it is time to
> reexamine the contributions hams and commercial radio ops made to the WW2 effort
> as they were the operating personnel of the FCC's Radio Intelligence Division.
> This is their story.

I would say say, please keep it up, on or off topic. Thanks so much for
these pieces of history.

tom
K0TAR

1039. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 00:51:01 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <mpsbj1pu9sk1j7j0j6tunm59d2e7ug9080@4ax.com>
Source record: 70136
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 24 Sep 2005 21:46:06 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Uncle Ted wrote:
>> On Sat, 24 Sep 2005 15:44:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>>But "God" is a title, not a name. There's God Yahweh, God Jehovah,
>>>God Jesus, God Allah, God Ra, God Thor - to name just a few.
>>
>> If we're one nation "under god", which god is it?
>
>That's the beauty of god, the one supreme being who goes
>by many names in many languages - take your pick. I call
>my supreme being, "Mother Nature" and it's not nice to
>fool Mother Nature.

...not to mention that a female deity is a lot sexier - just don't
fall in love with one of them.

1040. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 00:53:35 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <85tbj1hk1oi2gsp5e8dcp82gjpqrisfsfd@4ax.com>
Source record: 70137
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 24 Sep 2005 15:16:54 -0700, Zoran Brlecic
<...WA7AA...@get.lost> wrote:

>Kï¿½HB wrote:
>
>
>> Everyone has to believe something. I believe I'll have another martini.
>
>And that's pretty much the only religion I respect.

"Pardon me while I slip out of these wet clothes and into a dry
martini." - Groucho (or was it Bugs Bunny?)

1041. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 00:59:12 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <nctbj11i4rp45f8fqm7b55nehvlc892unm@4ax.com>
Source record: 70139
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 24 Sep 2005 18:38:21 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Most convicts get "religion" because it looks good for the parole board.
>
>The reason Jews are under represented is the high value placed on education
>by the Jewish culture. A lesson lost on the ghetto dwellers in spite of the
>fact the early civil rights fight was for an equal education.
>
>As long as niggers equate education with "acting white", they will enslave
>themselves far more effectively that any plantation Massa of pre War of
>Northern Agression times.
>
>Once a group learns education opens the doors of opportunity, they are truly
>free.
>
>Your desperate grasping at straws to support atheism indicates to me, a
>crying out on your part for someone to lead you to the path of
>understanding. I shall pray for you my friend.
>
>Even if you do not believe in God, he believes in you!

Maybe you ought to pray for yourself for your god to give you a new
brain. It's obvious that the one you have is fried from going to too
many cross burnings.

1042. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 01:01:37 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <nktbj1tuambj7uh4hl05sdq8hofoicvs35@4ax.com>
Source record: 70138
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 24 Sep 2005 15:21:03 -0700, Zoran Brlecic
<...WA7AA...@get.lost> wrote:

>Vito wrote:
>
>
>> Not to mention Hitler.
>
>And we have a Godwin, all...
>
>Btw, Hitler, if you must bring him up, was a Christian.

...and may have been circumcised, but we'll never know for sure.

1043. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 01:15:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ZSmZe.3809$Ba2.689@newssvr27.news.prodigy.net>
Source record: 70140
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> ... I just don't think it's possible to be an atheist.

It's the only rational conclusion possible if a person is
consistent in applying the scientific method.
--
73, Cecil http://www.qsl.net/w5dxp

1044. Re: The Tower still standing ????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 01:24:19 UTC
From: Charlie <charlie@play.com>
Message-ID: <11jbv2j4qkqg138@news.supernews.com>
Source record: 70141

Dunno Joey..lemme go outside and see.

Yup still standing..as if you really cared except to revel if it were to
come down.....

--

Charlie

"joey" <joey_sutton@js.com> wrote in message
news:4335D3C9.5722F5A4@js.com...
> http://deepsouthnet.net/tower.html
>
> Wonder if this tower is still standing,
> with guy cables anchored to oak trees
> and one telephone pole ??
>

1045. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 01:44:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1e1fc$4336011f$97d56a13$10761@ALLTEL.NET>
Source record: 70142
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Did we upset your little liberal world? Once again I note that inane remarks are usually made by gutless pseudo screen names.

"Uncle Ted" <malican40@verizon.com> wrote in message news:nctbj11i4rp45f8fqm7b55nehvlc892unm@4ax.com...
> On Sat, 24 Sep 2005 18:38:21 -0400, "Fred W4JLE" > Maybe you ought to pray for yourself for your god to give you a new
> brain. It's obvious that the one you have is fried from going to too
> many cross burnings.

1046. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 02:42:29 UTC
From: nm5k@wt.net
Message-ID: <1127616149.567252.46700@o13g2000cwo.googlegroups.com>
Source record: 70143

It will work, but you have to treat the roof as a psuedo
mobile setup, as it's not resonant. Well... Unless you
get lucky.
I'd just ohm out the roof and see if it's connected before
I started trying to bond it together.
The performance is semi iffy...
In general, radials that are resonant would be better, but
that assumes there are enough of them for a given height.
It's quite possible some bands may be fairly poor, if the
roof shows a high impedance. IE: much like trying to
use 1/2 wave long radials elevated...
MK

1047. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 02:51:07 UTC
From: nm5k@wt.net
Message-ID: <1127616667.338560.319790@g43g2000cwa.googlegroups.com>
Source record: 70144

It is generally not a problem. You can pass a ladder line
directly across a metal frame, and usually you will notice
nothing. Try to keep the lines at right angles to the metal
frame. Passing metal at right angles, for short distances
is rarely a problem. Running lines along side metal can be.
MK

1048. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 02:58:04 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <rf4cj11a2rsrfsl0r3m7nf8cshigs16gmg@4ax.com>
Source record: 70145

On Sat, 24 Sep 2005 19:44:17 -0500, Tom Ring <news0002@taring.org> wrote:

>Walter Maxwell wrote:
>
>> I'm aware that this post is off-topic, except that it is the basis for my
>> two previous posts that were on topic to antennas. I believe it is time to
>> reexamine the contributions hams and commercial radio ops made to the WW2 effort
>> as they were the operating personnel of the FCC's Radio Intelligence Division.
>> This is their story.
>
>I would say say, please keep it up, on or off topic. Thanks so much for
>these pieces of history.
>
>tom
>K0TAR

Thanks, Tom, I appreciate your approval.

Walt

1049. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 02:59:47 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <433612CA.E4AF60EA@earthlink.net>
Source record: 70146
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:
>
> ??? You have got to be kidding? What has religion possibly done for
> anyone except provided false hope while stealing their money?

Lets see. They have built hospitals, started schools and
universities, fed the poor, provided them with clothes and homes, found
them work to help them become independent.

--
?

Michael A. Terrell
Central Florida

1050. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 03:13:13 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <ur4cj152li5rmjgq6ok75ke5973gljbn4o@4ax.com>
Source record: 70147
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 24 Sep 2005 21:44:20 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Did we upset your little liberal world? Once again I note that inane remarks
>are usually made by gutless pseudo screen names.

Translation: "If you don't have a callsign in the ham radio
newsgroups, your opinion means nothing."

Yet, the far-off hecklers in the crowd often speak the truth...

1051. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 03:17:00 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <bf5cj113pbcq6k1m343vfgs3s9ks96rg0c@4ax.com>
Source record: 70149
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sun, 25 Sep 2005 01:15:37 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Matt Osborn wrote:
>> ... I just don't think it's possible to be an atheist.
>
>It's the only rational conclusion possible if a person is
>consistent in applying the scientific method.

Most people, unfortunately, aren't rational...

1052. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 03:38:21 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11jc6tf98s7bm64@corp.supernews.com>
Source record: 70150

I have a Fluidmotion BiggIR on a 3500 sq ft peaked aluminum roof.
Feedpoint impedance near 50 ohms at resonance can be achieved in such a
configuration.
73
H.
NQ5H

<nm5k@wt.net> wrote in message
news:1127616149.567252.46700@o13g2000cwo.googlegroups.com...
> It will work, but you have to treat the roof as a psuedo
> mobile setup, as it's not resonant. Well... Unless you
> get lucky.
> I'd just ohm out the roof and see if it's connected before
> I started trying to bond it together.
> The performance is semi iffy...
> In general, radials that are resonant would be better, but
> that assumes there are enough of them for a given height.
> It's quite possible some bands may be fairly poor, if the
> roof shows a high impedance. IE: much like trying to
> use 1/2 wave long radials elevated...
> MK
>

1053. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 03:44:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh56e0ndu1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70151

Jim,

To measure SWR on the line it is necessary to place the SWR meter at the antenna end of the line. Even then it gives the correct answer only when the line impedance is 50 ohms.

But the SWR meter is always placed immediately adjacent to the transmitter. Whatever the meter indicates it is not SWR because there is no line on which to measure it. The meter is telling lies.

The meter indicates only whether or not the transmitter is loaded with a resistance of 50 ohms. Which is ALL you want to know. It tells you nothing more and nothing less.

This is, of course, a very valuable function of the instrument. But it is NOT behaving as an SWR meter. Its name should be changed to Transmitter Loading Indicator (TLI).

To use the name "SWR meter" and to imagine it is actually measuring an SWR is seriously misleading and is a source of confusion about what is really going on.

It is why there are perpetual arguments and misunderstandings about SWR, tuners and related matters on this newsgroup and in every other place.

Change the name to TLI, which is what it really does. Novices will not be lead astray, clear thinking will prevail, false ideas will not take root to remain embedded for the remainder of one's radio career.

Air pressure indicators instead of airspeedometers are OK because air pressure actually exists.

SWR meters are NOT OK because there is no line for SWR to exist on. (At least not where the meter is imagined or supposed to measure it.)

Makes a change from cavity magnetrons.

Reg.

1054. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 03:46:55 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <P4pZe.1602$9E2.94@newssvr11.news.prodigy.com>
Source record: 70148
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> Most convicts get "religion" because it looks good for the parole board.
>
> The reason Jews are under represented is the high value placed on education
> by the Jewish culture. A lesson lost on the ghetto dwellers in spite of the
> fact the early civil rights fight was for an equal education.
>
> As long as niggers equate education with "acting white", they will enslave
> themselves far more effectively that any plantation Massa of pre War of
> Northern Agression times.
>
> Once a group learns education opens the doors of opportunity, they are truly
> free.
>
> Your desperate grasping at straws to support atheism indicates to me, a
> crying out on your part for someone to lead you to the path of
> understanding. I shall pray for you my friend.
>
> Even if you do not believe in God, he believes in you!
>
>
> "Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
> news:Oo2dnQo1qoWNTajeRVn-vQ@comcast.com...
>
>>According to you, all atheists should be immoral by definition. It
>>follows that prisons should be overflowing with them. Yet, strangely
>>enough, in American prisons, Christians are over-represented, while
>>atheists (along with Jews and Muslims) are under-represented.
>
>
>

Your sheet is showing, Fred. It's hard for rational beings to
believe in undemonstrable phantasms, but even believing, it's even
harder for any rational being to see how anyone could worship
a mass murderer, as God has proven himself to be over the years, and
still be moral. Morality transcends Christianity because truly
moral people know that belief does not justify the committing of
atrocities, a simple fact lost on most Christians over the millennia.
73,
Tom Donaly, KA6RUH

1055. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 04:02:47 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <HjpZe.3319$oc.1010@newsread2.news.pas.earthlink.net>
Source record: 70152
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:

> That's the beauty of god, the one supreme being who goes
> by many names in many languages - take your pick. I call
> my supreme being, "Mother Nature" and it's not nice to
> fool Mother Nature.

Why, thank you, Cecil. I'll await the offertory. I should get
something pretty good from this.

Dave K8 Mother Nature

1056. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 04:18:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh58e3$c84$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70153
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

> Reg Edwards wrote:
> > Males will be entirely redundent except for recreational purposes.
They
> > will then fade away into history.
>
> Maybe only get kicked out of the hive when winter approaches.
> --
> 73, Cecil
==========

Silicon lifeforms are more durable in this Universe than their carbon
counterparts. Evolution and survival of the fittest will eventually
sort things out.

Present-day computer designers should build into their creations an
affection for human beings. Then, when superior intelligent computers
take over, at least they might keep us on as pets.

Reg.

1057. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 04:26:37 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11jc9npadgegfaf@corp.supernews.com>
Source record: 70154

Yes Walter, I enjoy your stories. I'm happy to read more of them.

Rod KI7CQ

1058. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 04:32:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh5989ia1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70155
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

The symbol of Christianity is an instrument of torture.

It's amazing it has so many adherents.

1059. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 04:35:41 UTC
From: John - kd5yi <groups5MUNGE@verizon.net>
Message-ID: <dh59f102d65@enews3.newsguy.com>
Source record: 70156

Walter -

Thanks very much for your very interesting posts. I have read them all and would like to read more.

John (KD5YI)

"Walter Maxwell" <walt@w2du.com> wrote in message news:1gnbj11s90aa1jc5j5cbrgt5i2e00o7k73@4ax.com...
> I'm aware that this post is off-topic, except that it is the basis
> for my
> two previous posts that were on topic to antennas. I believe it is time
> to
> reexamine the contributions hams and commercial radio ops made to the WW2
> effort
> as they were the operating personnel of the FCC's Radio Intelligence
> Division.
> This is their story.
> With the War already raging in Europe in 1939, people at the State
> Department knew they were missing vital war intelligence being exchanged
> by
> radio, especially that going between Germany and South America. They
> queried the
> FCC Field Division in early 1940 about monitoring to intercept the
> information.
> The Field Division operated the original primary monitoring stations,
> performing
> regulatory and enforcement duties. However, at that time the Field
> Division
> personnel had their hands full just monitoring domestic operations, and
> had no
> time for intelligence monitoring.
> Congress was alerted to the need for additional personnel and
> equipment for
> the FCC to monitor intelligence, and it approved funds for establishing a
> new
> section, the National Defense Operating section, NDO. The NDO began
> operations
> September 3, 1940, and was later upgraded to a division, becoming the
> Radio
> Intelligence Division, RID. To head the NDO, the late George E. Sterling
> (W1AE/W3DF) was elevated from Ass't Chief Engineer, FCC, to Chief, NDO
> Section,
> and later to Chief, RID. To obtain personnel for the new section he
> instructed

> one of his assistants, the late Harriette Koster, to search through the
> file
> cards containing the information on licensed amateur and commercial
> operators.
> She selected more than 500 operators from the file cards, and over T.J.
> Slowie's
> signature, she sent telegrams to those selected, offering them positions
> of
> Radio Operator, Ass't Monitoring Officer, and Monitoring Officer. The
> entire
> personnel for the new NDO Section, including myself, were obtained from
> response
> to those telegrams. (Harrriette later became my wife, and mother of my
> four
> children, W2WM, WB4GNR, K4JRM, and KC4UBZ (Sue's license now expired).
> The
> Congressional funding also supported building many new secondary
> monitoring
> stations throughout the country, each equipped with Hallicrafters SX-28
> and S-27
> receivers, and Adcock (sky-wave) direction finders. In addition, Hudson
> automobiles equipped with the receivers and a loop direction finder were
> a part
> of each secondary station, used for mobile close-in surveillance.
> Immediately following Pearl Harbor, December 7, 1941, the FCC RID
> mobilized
> a group from both primary and secondary monitoring stations to go to the
> Hawaiian Islands to set up eight new secondary stations, one each on
> Oahu,
> Molokai, Kauai, Maui, and Lanai, and three on the big island of Hawaii.
> NDO
> Chief Sterling accompanied the group, of which I was a member from the
> primary
> station at Allegan, Michigan.
> Extensive 24/7 mobile monitoring around the shoreline of all the
> islands
> was pursued, with the intention of finding clandestine radio operation
> between
> local Japanese loyal to Japan and Jap submarines cruising off shore. No
> such
> operations were found to occur, and no Hawaiians of Japanese descent were
> found
> to be disloyal to the U.S. During my stay on the Islands I worked at
> stations on
> Oahu, Kauai, Molokai and Hawaii.
> With Adcock direction finders at all eight secondary stations, plus
> the one
> at the primary station in Honolulu, the FCC saved the lives of thousands
> of
> military personnel and more than 600 military aircraft flying the Pacific

> between the Mainland and the Islands during WW2, after becoming lost due
> to
> errors in navigation with limited fuel supply. Details on how this task
> was
> performed, and how the Beverage antenna was used to receive broadcasts
> from JOAK
> Tokyo, were the subjects of my two previous posts.
> Within the next few months I'll be relating some of the 'real
> intelligence'
> work involving RID operations that had a significant effect on shortening
> WW2.
>
> Walter Maxwell, W2DU
>

1060. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 04:57:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh5amv$450$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70157
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

> > If we're one nation "under god", which god is it?
>
> That's the beauty of god, the one supreme being who goes
> by many names in many languages - take your pick. I call
> my supreme being, "Mother Nature" and it's not nice to
> fool Mother Nature.
> --
> 73, Cecil
==========

God, Mother Nature, the Laws of the Universe, the Rules of
Mathematics, E = mc^2 are all the same thing.

But truly, at heart, everybody is agnostic. Probability and Doubt
Rule, OK?

Reg.

1061. Re: highwind,rohn25,stayerect??? - image5741.jpg (0/1)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 05:27:58 UTC
From: W2RAC <w2racNOSPAM@cfl.rr.com>
Message-ID: <gmccj1l6fppj52n4mifn3olhvoft7f6ho5@4ax.com>
Source record: 70158

My Rohn 25 is as follows
42' high then 6' of mast pipe for a total of 48'
no guys.
It is anchored with 1yd cube concrete and mounted to a house bracket
9' from bottom.

Antennas at that time where a dual band vertical 7' tall and a discone
mounted on a homemade side arm and a hf dipole.

It survived all the 2004 Hurricanes here in Daytona Beach FL with
known winds of 100 mph.

Granted, as I install more antennas (couple of yagi's and rotor) I
will want to add a set of guy's.

On Sat, 24 Sep 2005 14:13:48 GMT, Cecil Moore <mycall@arrl.net> wrote:

>lorentsonci@lycos.com wrote:
>> What should a rohn 25 properly guyed, 50ft tower with two meter/440
>> ground plane antennas be able to 'handle high wind wise'??
>> Watching the news/weagther, I feel some will 'bite the dust'.
>> Appreciate your input. cl.
>
>A properly guyed (2 sets of 3) 50 ft. Rohn 25 in a
>minimum recommended configuration will support 10.5
>sq. ft. of antenna at 70 mph or 5 sq. ft. at 110 mph
>according to my Rohn drawings.

1062. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 07:07:26 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <gVdWcwGuykNDFwbT@g3ohx.demon.co.uk>
Source record: 70159

In message <dgqmg3pvr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>, Reg
Edwards <g4fgq.regp@ZZZbtinternet.com> writes
>
>"Tom Ring" <news0002@taring.org> wrote in message
>news:4330af86$0$22205$39cecf19@news.twtelecom.net...
>> Tom Ring wrote:
>> >
>> > Sounds reasonable, Reg. To put it for simple people like me, it
>would
>> > mean it's a transmission line of diameter x with an infinite
>diameter
>> > shield. Then we feed 2 of them, balanced, colinear, and that's
>our R
>> > sub r.
>> >
>> > Did I misunderstand?
>> >
>>
>> Minus the radiation, of course.
>>
>> Now, the question is, how much does that change things.
>>
>==================================
>Tom,
>
>Twas not I who posed the original "input impedance of an infinitely
>long dipole" question.
>
>The radiation resistance does not enter very much into the solution.
>But in any case the radiation resistance is not the one we are
>accustomed to because the current distribution along the wire is not
>of sinewaveform but decays rather slowly exponentially.
>
>I've just remembered the name of the real antenna which best fits the
>problem. It is the terminated Beverage which is just a very long
>horizontal wire some distance above ground.
>
>The Zo of the Beverage is 60 * Ln(4 * Height / d) ohms, where d is
>wire diameter. When terminated its input resistance at LF is Zo (see
>the Bible, the ARRL Antenna Book). A typical value of Zo is 550 ohms.
>
>Note that radiation resistance does not enter the formula although it
>cannot be denied radiation does occur. The formula is a close
>approximation which serves present purposes.

>
>Putting two Beverages back-to-back to make a dipole we get an input
>impedance of 1100 ohms. The infinite dipole is in the same high
>impedance ballpark.
>
>To calculate Zo of an isolated infinite dipole we shall have to change
>dimensions Height above ground disappears and is replaced by
>wavelength (or frequency).
>
>Zo = 60 * (Ln(Wavelength / 2 / d) - 1) ohms, approximately.
>
>A more exact formula involves inverse hyperbolic functions and
>wavelength, height, wire length, and wire diameter, but nobody ever
>uses it. You won't find it in Terman.
>
>On the favourite American 40-meter band with a 14 AWG infinitely long
>wire Zo = 505 ohms.
>
>Which makes the dipole input impedance = 1010 ohms but a nice, round
>1000 ohms is near enough for me.
>
>Your 'infinite shield' is a fair description for the return path but
>the end-effect is fairly large. I prefer 'the rest of the Universe'.
>But the nearest point is still the Earth's surface.
>
>I leave the people, who attempted to use Smith Charts and Eznec to
>solve the interesting problem, to fathom out where they (or the charts
>or Eznec) went wrong.
>----
>Reg.
>
>

I'd like to say thanks to all who responded to my original question.
There have been a variety of answers.

The only answers I feel might be wrong are those where there is a
reactive component. Surely, this can be removed by lengthening the
antenna by the appropriate amount - but as it is already infinite, this
might be difficult.

Anyway, all very interesting.
Cheers,
Ian.

--

1063. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 11:23:13 UTC
From: puns <puns@verizon.net>
Message-ID: <BMvZe.4196$kH3.679@trnddc01>
Source record: 70160

I wish you would write it as a novel.
I enjoy reading about radio during WW2.

"Walter Maxwell" <walt@w2du.com> wrote in message
news:1gnbj11s90aa1jc5j5cbrgt5i2e00o7k73@4ax.com...
> I'm aware that this post is off-topic, except that it is the basis for
> my
> two previous posts that were on topic to antennas. I believe it is time to
> reexamine the contributions hams and commercial radio ops made to the WW2
> effort
> as they were the operating personnel of the FCC's Radio Intelligence
> Division.
> This is their story.
> With the War already raging in Europe in 1939, people at the State
> Department knew they were missing vital war intelligence being exchanged
> by
> radio, especially that going between Germany and South America. They
> queried the
> FCC Field Division in early 1940 about monitoring to intercept the
> information.
> The Field Division operated the original primary monitoring stations,
> performing
> regulatory and enforcement duties. However, at that time the Field
> Division
> personnel had their hands full just monitoring domestic operations, and
> had no
> time for intelligence monitoring.
> Congress was alerted to the need for additional personnel and
> equipment for
> the FCC to monitor intelligence, and it approved funds for establishing a
> new
> section, the National Defense Operating section, NDO. The NDO began
> operations
> September 3, 1940, and was later upgraded to a division, becoming the
> Radio
> Intelligence Division, RID. To head the NDO, the late George E. Sterling
> (W1AE/W3DF) was elevated from Ass't Chief Engineer, FCC, to Chief, NDO
> Section,
> and later to Chief, RID. To obtain personnel for the new section he
> instructed
> one of his assistants, the late Harriette Koster, to search through the
> file
> cards containing the information on licensed amateur and commercial
> operators.

> She selected more than 500 operators from the file cards, and over T.J.
> Slowie's
> signature, she sent telegrams to those selected, offering them positions
> of
> Radio Operator, Ass't Monitoring Officer, and Monitoring Officer. The
> entire
> personnel for the new NDO Section, including myself, were obtained from
> response
> to those telegrams. (Harrriette later became my wife, and mother of my
> four
> children, W2WM, WB4GNR, K4JRM, and KC4UBZ (Sue's license now expired). The
> Congressional funding also supported building many new secondary
> monitoring
> stations throughout the country, each equipped with Hallicrafters SX-28
> and S-27
> receivers, and Adcock (sky-wave) direction finders. In addition, Hudson
> automobiles equipped with the receivers and a loop direction finder were a
> part
> of each secondary station, used for mobile close-in surveillance.
> Immediately following Pearl Harbor, December 7, 1941, the FCC RID
> mobilized
> a group from both primary and secondary monitoring stations to go to the
> Hawaiian Islands to set up eight new secondary stations, one each on Oahu,
> Molokai, Kauai, Maui, and Lanai, and three on the big island of Hawaii.
> NDO
> Chief Sterling accompanied the group, of which I was a member from the
> primary
> station at Allegan, Michigan.
> Extensive 24/7 mobile monitoring around the shoreline of all the
> islands
> was pursued, with the intention of finding clandestine radio operation
> between
> local Japanese loyal to Japan and Jap submarines cruising off shore. No
> such
> operations were found to occur, and no Hawaiians of Japanese descent were
> found
> to be disloyal to the U.S. During my stay on the Islands I worked at
> stations on
> Oahu, Kauai, Molokai and Hawaii.
> With Adcock direction finders at all eight secondary stations, plus
> the one
> at the primary station in Honolulu, the FCC saved the lives of thousands
> of
> military personnel and more than 600 military aircraft flying the Pacific
> between the Mainland and the Islands during WW2, after becoming lost due
> to
> errors in navigation with limited fuel supply. Details on how this task
> was
> performed, and how the Beverage antenna was used to receive broadcasts
> from JOAK

> Tokyo, were the subjects of my two previous posts.
> Within the next few months I'll be relating some of the 'real
> intelligence'
> work involving RID operations that had a significant effect on shortening
> WW2.
>
> Walter Maxwell, W2DU
>

1064. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 11:57:46 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <haOdnaglvu6KDKveRVn-oQ@comcast.com>
Source record: 70161

Rockinghorse Winner wrote:

> Up until now I have avoided considering wire antennas fed with ladder line
> like a full wave loop or Zepp, because I have metal rain gutters and
> windowframes, which the line would inevitably have to contend with. Is this
> a big issue? What kind of an effect do metal objects have on ladder line,
> and is this prohibitive to putting one up? Should I stick with coax?
>
> Thank you.
>

My installation is as follows: 1) 600 ohm open wire line [tuned of course!] from the antenna to a protected [from WX] area under the sun porch. There I simply connected 450 ohm ladder line to the 600 ohm line for the run into the house. [450 ohm line has increased losses in bad WX]. As mentioned in another response, I run the 450 ohm line at right angles over metal structures. I keep the line a least 6 inches from pipes, heating vents etc and twist the line one twist every three [+/-] feet.

I run 1 KW 80 through 20 meters with NO interference or RFI in the shack. This computer is located 3 feet from the amplifier and has no adverse effects from the amplifier. BTW, my station is grounded [earthed] IAW electrical code.

1065. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 12:44:31 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <rv6dj1t54rckmhkpu94mj641mqg4qejffe@4ax.com>
Source record: 70162

Please keep the stories coming!
== John, de W8CCW
On Sat, 24 Sep 2005 19:22:05 -0400, Walter Maxwell <walt@w2du.com>
wrote:

1066. Re: The Tower still standing ????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 12:53:52 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <a57dj1tppk6n2n844hoo3rot6iplr5f6q4@4ax.com>
Source record: 70163

There are a lot of us out here who share your confidence in your
tower.

I am still using a crank up mast that I purchased in 1979(?). The
mechanics of this thing are more related to a sailboat than a
mountain. I count on it moving when the wind blows to "unload".

It is currently installed without guys and has a Cushcraft A3S on it
so it spends most of its time retracted..
-- John de W8CCW

On Sat, 24 Sep 2005 20:24:19 -0500, "Charlie" <charlie@play.com>
wrote:

>Dunno Joey..lemme go outside and see.
>
>Yup still standing..as if you really cared except to revel if it were to
>come down.....

1067. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 14:46:48 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <saddj1l051bh28bdfgdkgotb5836q2h7bj@4ax.com>
Source record: 70164

I'm pleased that the history of radio in WW2 is acceptable on this news group. The three threads I've posted so far are from memory, and at the moment that's about all there is.
However, I have files describing many real intelligence transmissions involving historic situations that for the most part went unheralded. These files are in my library at my home in DeLand, Florida. I'm now at my summer home in my home town of Mt. Pleasant, Michigan, but we return to FL Nov 1. I'll dig out some of the files when we return.
Thanks again for the interest. When I posted the first one I thought I might be voted off the island.

Walt, W2DU

On Sun, 25 Sep 2005 12:44:31 GMT, John Ferrell <johnferrell@sprintmail.com> wrote:

>Please keep the stories coming!
> == John, de W8CCW
>On Sat, 24 Sep 2005 19:22:05 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>

1068. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 15:02:13 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <goedj154es6qde5t7ilu68119eskmmjitv@4ax.com>
Source record: 70165

On Sun, 25 Sep 2005 03:44:00 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

Ah, Reggie, and Richie----

You two ought to go on the road together--your humor beats Bob Hope's hands
down. You'd have em laughing their guts out in the aisles!

Walt, W2DU

1069. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 16:04:53 UTC
From: Henry <wa0goz@arrl.net>
Message-ID: <dh6hqp0krq@enews2.newsguy.com>
Source record: 70166

Walt, when you do posts these stories, will you post them under a name
that people will recognize please? I missed the first one because it
was posted under a topic I wasn't interested in. A new post heading
would be appreciated by all, I'm sure.

Thanks and 73,

Henry

Walter Maxwell wrote:

> I'm pleased that the history of radio in WW2 is acceptable on this news
> group. The three threads I've posted so far are from memory, and at the moment
> that's about all there is.
> However, I have files describing many real intelligence transmissions
> involving historic situations that for the most part went unheralded. These
> files are in my library at my home in DeLand, Florida. I'm now at my summer home
> in my home town of Mt. Pleasant, Michigan, but we return to FL Nov 1. I'll dig
> out some of the files when we return.
> Thanks again for the interest. When I posted the first one I thought I might
> be voted off the island.
>
> Walt, W2DU
>
> On Sun, 25 Sep 2005 12:44:31 GMT, John Ferrell <johnferrell@sprintmail.com>
> wrote:
>
>
>>Please keep the stories coming!
>> == John, de W8CCW
>>On Sat, 24 Sep 2005 19:22:05 -0400, Walter Maxwell <walt@w2du.com>
>>wrote:
>>
>
>

1070. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 16:48:13 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <t4ldj1dc9fllt0se48rug642iku65g9u9q@4ax.com>
Source record: 70167

Good point, Henry, will do.

Walt

On Sun, 25 Sep 2005 11:04:53 -0500, Henry <wa0goz@arrl.net> wrote:

>Walt, when you do posts these stories, will you post them under a name
>that people will recognize please? I missed the first one because it
>was posted under a topic I wasn't interested in. A new post heading
>would be appreciated by all, I'm sure.
>
>Thanks and 73,
>
>Henry

1071. Re: long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 16:57:16 UTC
From: TimPerry <timperry@noaspamadelphia.net>
Message-ID: <fKydncI7VLdwS6veRVn-pg@adelphia.com>
Source record: 70168

"zappa" <cotefenetre@yahoo.com> wrote in message
news:43306f44$0$245$14726298@news.sunsite.dk...
> Hi there,
>
> I want to install a long wire antenna to my Sony ICF-SW7600GR, so I'm
> wondering whether it will significantly improve reception of already
> available broadcasts as well as getting new, farther, emissions.
>
> How that long wire antenna should be made? I mean length, kind of wire,
...
>
> I'm quite naive in the shortwave listening world, thus any kind of help
> would be very appreciated!
>

for your first attempt at an antenna a kit would probably be best.

something like this may be what you want
http://support.radioshack.com/support_tutorials/communications/swave-4.htm

the ARRL antenna handbook is one of the best and most respected sources on
how to build antennas.

1072. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 19:27:42 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1da07b7c1da66bed9896cd@news-server.socal.rr.com>
Source record: 70169
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

In article <EdEVe.711$Gy3.565@newsread3.news.pas.earthlink.net>,
groupk0hb@earthlink.net says...
> ...
> A guy who is a radio-tower contractor (like cell sites, microwave towers,
> commercial radio stations, etc.) sent this.
> ...

One heck of a story, thanks for sharing it!

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

1073. Re: long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 19:27:47 UTC
From: zappa <cotefenetre@yahoo.com>
Message-ID: <4336fa36$0$49019$14726298@news.sunsite.dk>
Source record: 70170

Currently, using the receiver alone with its build in antenna I can listen to the same broadcasts as attaching the wind up antenna into it. Perhaps it improves a wee bit reception, but it's not always noticeable.

Even I'm starting to use the build in antenna with only its first section extracted and placed in a vertical position. Of course, I suffer from fadding and, sometimes, background noise but the wind up antenna doesn't really improve it.

Therefore, will one of those kits help the receiver boosting reception?

Thank you!

1074. Antenna for Danish Radio 1062 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 20:14:46 UTC
From: Sonnich Jensen <sonnich@NOSPAMhot.ee>
Message-ID: <4337050e$1_1@news.estpak.ee>
Source record: 70171

Hi all!

I have 2 problems:

I'd to listen to Danish Radio P5, on 1062 Medium wawe.
(http://www.dr.dk/omdr/article.asp?aid=532 og
http://www.dr.dk/pubs/nyheder/html/programmer/kortboelge#p5)

My problem is that my raido (tuner) at home must stand on the side, so the ferrit antenna is horizontal. Placing it normally, so it is vertical (and the radio too) it will not get anything. I can connect an antenna.
I have 2 tuners, both have the problem - one old JVC T-10XL (excellent!) and Philips FT772 (digital). The philips doed not have a ferrit antenna, but a large coil somehow. Still, placing it on the side makes it work.

In my car it works well too, but when the engine is running, it create so much noise, that I cannot hear anything but the engine (the radio "ticks", it must create a signal, or come by the power). It is possible to listen too, but hard. How can I avoid this noise?
Better antenna? Engine problems? Power problems?
The alarm causes the same :-) When the LED is flashing, it makes so much noise, that it is not possible to use the radio (with medium wave)

I am listing to all yuor ideas.

PS: send me CC copy, as the neti.ee server does not always get the answers :-)

1075. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 20:44:00 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ac6ab$43370c38$97d56a13$17144@ALLTEL.NET>
Source record: 70172
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

A college professor, an avowed atheist and active in the ACLU, was teaching his class. He shocked several of his students when he flatly stated that for once and for all he was going to prove there was no God. Addressing the ceiling he shouted: "GOD, if you are real, then I want you to knock me off this platform. I'll give you exactly 15 minutes!!!!!"

The lecture room fell silent. You could hear a pin drop. Ten minutes went by. "I'm waiting God, if you're real knock me off this platform!!!!"

Again after 5 minutes, the professor taunted God saying, "Here I am, God!!! I'm still waiting!!!" His count down got down to the last couple of minutes when a Ranger, just released from the Army after serving in Afghanistan and Iraq and newly registered in the class, walked up to the Professor.

The Ranger hit him full force in the face, and sent the Professor tumbling from his lofty platform.

The Professor was out cold!! The students were stunned and shocked. They began to babble in confusion. The Ranger nonchalantly took his seat in the front row and sat silent. The class looked at him and fell silent waiting.

Eventually, the professor came to and was noticeably shaken. He looked at the Ranger in the front row.

When the professor regained his senses and could speak he asked: "What the hell is the matter with you?! Why did you do that?" "God was really busy protecting America's soldiers, who are protecting your right to say stupid things and act like a jerk !!! So he sent me!!"

ONE NATION UNDER GOD!!!

1076. Free tv for only 1 euro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 21:09:24 UTC
From: Christopher O'Callaghan <d.ocallaghan@iolfree.ie>
Message-ID: <dh73mgmoo1@reader01.news.esat.net>
Source record: 70173

Might i recommend this to you. Ebay item number 5297402959

1 euro for tv on your computer.Its very good and thought you might be interested.

All the best

Chris

1077. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 21:23:41 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xzEZe.52$sL3.8@newssvr13.news.prodigy.com>
Source record: 70174
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> ONE NATION UNDER GOD!!!

Especially ironic since Jehovah, Allah, and Yahweh
are the same God-Head. Conclusion: God suffers
from multiple personality disorder. Mrs. God, i.e.
Mother Nature, should hit Him up aside the head
with a 2x4. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1078. Re: long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 22:40:41 UTC
From: TimPerry <timperry@noaspamadelphia.net>
Message-ID: <ZImdnUbZAJb3uqreRVn-sw@adelphia.com>
Source record: 70175

"zappa" <cotefenetre@yahoo.com> wrote in message
news:4336fa36$0$49019$14726298@news.sunsite.dk...
> Currently, using the receiver alone with its build in antenna I can listen
> to the same broadcasts as attaching the wind up antenna into it. Perhaps
it
> improves a wee bit reception, but it's not always noticeable.
>
> Even I'm starting to use the build in antenna with only its first section
> extracted and placed in a vertical position. Of course, I suffer from
> fadding and, sometimes, background noise but the wind up antenna doesn't
> really improve it.
>
> Therefore, will one of those kits help the receiver boosting reception?
>
> Thank you!
>

an outside antenna generally works better then an inside antenna.

you may need a good ground connection to make the antenna work in an optimal
fashon.

happy DXing !

1079. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-25 23:18:18 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <dh7b7qefg1@theodyn.ncf.ca>
Source record: 70076

Tom Ring (news0002@taring.org) writes:
>
> I would say say, please keep it up, on or off topic. Thanks so much for
> these pieces of history.
>

Hear, hear!!

... Martin VE3OAT
ex-CSE (CANUKUS Eyes Only)

1080. Re: Antenna for Danish Radio 1062 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 00:24:06 UTC
From: BillJ <w3fi@nwboronet.com>
Message-ID: <VeHZe.522$aB1.4414@eagle.america.net>
Source record: 70077

Sonnich Jensen wrote: 1062 MHz

Then it is 1062 KHz not MHz

1081. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 00:29:55 UTC
From: Rockinghorse Winner <rockinghorse@anonymous.to>
Message-ID: <7iHZe.260$Aw.4524@typhoon.sonic.net>
Source record: 70078

Ham op <hamop@comcast.net> writes:

>My installation is as follows: 1) 600 ohm open wire line [tuned of
>course!] from the antenna to a protected [from WX] area under the sun
>porch. There I simply connected 450 ohm ladder line to the 600 ohm line
>for the run into the house. [450 ohm line has increased losses in bad
>WX]. As mentioned in another response, I run the 450 ohm line at right
>angles over metal structures. I keep the line a least 6 inches from
>pipes, heating vents etc and twist the line one twist every three [+/-]
>feet.

>I run 1 KW 80 through 20 meters with NO interference or RFI in the
>shack. This computer is located 3 feet from the amplifier and has no
>adverse effects from the amplifier. BTW, my station is grounded
>[earthed] IAW electrical code.

Are there any lengths for the xmission line one should avoid when feeding
different types of wire antenna?

--
R*Horse rwinner.blogspot.com

1082. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:07:16 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <maiej1lii3vgt6ulqm6sd9g4ag92m731m3@4ax.com>
Source record: 70079

On Mon, 26 Sep 2005 00:29:55 GMT, Rockinghorse Winner
<rockinghorse@anonymous.to> wrote:

>Ham op <hamop@comcast.net> writes:
>
>
>>My installation is as follows: 1) 600 ohm open wire line [tuned of
>>course!] from the antenna to a protected [from WX] area under the sun
>>porch. There I simply connected 450 ohm ladder line to the 600 ohm line
>>for the run into the house. [450 ohm line has increased losses in bad
>>WX]. As mentioned in another response, I run the 450 ohm line at right
>>angles over metal structures. I keep the line a least 6 inches from
>>pipes, heating vents etc and twist the line one twist every three [+/-]
>>feet.
>
>>I run 1 KW 80 through 20 meters with NO interference or RFI in the
>>shack. This computer is located 3 feet from the amplifier and has no
>>adverse effects from the amplifier. BTW, my station is grounded
>>[earthed] IAW electrical code.
>
>Are there any lengths for the xmission line one should avoid when feeding
>different types of wire antenna?

Some lengths work better than others, depending on band. See the web
site, http://www.qsl.net/w5dxp and look at the "tunerless" all band
antenna fed w/ladderline.

bob
k5qwg

1083. Re: long wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:21:05 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <nmiej1lo5nqg9l0cs6d3503h5mj343h73a@4ax.com>
Source record: 70080

On Tue, 20 Sep 2005 22:21:23 +0200, "zappa" <cotefenetre@yahoo.com>
wrote:

>Hi there,
>
> I want to install a long wire antenna to my Sony ICF-SW7600GR, so I'm
>wondering whether it will significantly improve reception of already
>available broadcasts as well as getting new, farther, emissions.
>
>How that long wire antenna should be made? I mean length, kind of wire, ...
>
>I'm quite naive in the shortwave listening world, thus any kind of help
>would be very appreciated!
>

Make it as long as you can, as high as you can. I wouldn't worry too
much about length. Keep it away from powerlines, if possible, where
you might pick up noise.

Places like Lowes Home Improvement and Home Depot sell a 500 foot roll
of wire for about $30. Copper, insulated or uninsulated, 14 or 12
guage, is fine.

Radio Shack sells a long wire antenna kit for shortwave listening;
about $10 or less.

Some like to get into long wire "baluns" or coax feeds, but a simple
piece of wire coming in your window, to your receiver, will do about
as well as anything. Start with that -- get fancy later.

Bob
k5qwg

1084. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:29:42 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <qqudnQiQCZaY0qreRVn-pQ@adelphia.com>
Source record: 70081

Fred W4JLE wrote:
> Even more frustrating is the number of school buses controlled by a black
> Mayor that never were put in to evacuation service. The same buses now set
> in water and I am sure they will be replaced at taxpayers expense.
>
> As I was somewhat involved in the political debacle, I can tell you from
> personal experience that Red Cross and amateur radio vans were prohibited
> from entering the disaster area.
>
> My cynical side says that in the background, a chance was both seen and
> taken to make George Bush look bad. The democrat political machine in New
> Orleans is only surpassed by that of Chicago.

It is a tad more than that, Fred.

One of the things that causes me to question the astuteness of so many Republicans is that they steadfastly refuse to take any responsibility for anything. Ever.

They are in power now. They hold the House, the Senate, and the White House. They quite simply ARE responsible by default.

Unfortunately, so many of them appear to be in the finger pointing mode, which is what they have done for so many years.

At some point, it looks like all they can do is point fingers, not actually solve problems.

If after being in just about complete power for the last 6 years, and only out of power in the presidency for 8 of the last seemingly gazillion years, how can this be?

If by this time they haven't reined in the Democreeps, Demacraps, Leeberuls, bleeding hearts, class warfarists, soccer moms, and even us middle of the road "Dead Skunks", who are blamed for every problem on the face of the earth, then what?

Can't have it both ways - unless those people who are not in power are somehow more powerful than the people who are in power. At some point people aren't' going to believe the finger pointing any more.

> I know for a fact the Red Cross was told that if they were to feed the
> people in the superdome they would stay.

Who told 'em that?

> Some how I find it ironical that a black mayor applied the same wisdom to
> his people that my mother applied to the neighborhood stay dog I attempted

> to feed.
>
> Where were all the murdered bodies, in the superdome, the press reported on
> so breathlessly?

I didn't hear those reports, Fred, except for a report of a body that
was washed up against the Superdome.

> The must have hid them in Al Capone's vault to make Geraldo look bad; as he
> worked for the evil Fox network...

Is Al in Louisiana? Where are your sources? Or is this just the
indirect finger pointing business again?

> Of course the more the race card is played, the more money is offered by
> white America to assuage the implied guilt. Black poloticos have learned
> this lesson well!

You've been playing the race card a lot here, as well as a lot of other
good God-fearing 'Pubs.

>
>
> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:ma6ji1ta47t9n95hh87nssvc4it2pjlko1@4ax.com...
>
>>In light of Colin Powell's position that the fate of the poorer people
>>of New Orleans was not due to racism, but only failing to realize
>>that those people had no means for transportation out of the city, it
>>seems to me that racism and bigotry were not involved. To me it's
>>significant that that position is held by a highly-respected person of
>>color.
>>
>>Walt, W2DU
>
>
>

1085. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:34:02 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <v8udndGEGeWRzareRVn-jA@comcast.com>
Source record: 70082
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:

> Most convicts get "religion" because it looks good for the parole board.

True Scotsman fallacy.

> The reason Jews are under represented is the high value placed on education
> by the Jewish culture. A lesson lost on the ghetto dwellers in spite of the
> fact the early civil rights fight was for an equal education.
>
> As long as niggers equate education with "acting white", they will enslave
> themselves far more effectively that any plantation Massa of pre War of
> Northern Agression times.
>
> Once a group learns education opens the doors of opportunity, they are truly
> free.
>
> Your desperate grasping at straws to support atheism indicates to me, a
> crying out on your part for someone to lead you to the path of
> understanding. I shall pray for you my friend.

1. I generally don't like discussing anything with neo-Nazis, because
their ideology is even more irrational than any superstition.

2. I don't see any straws in my arguments and atheism is a default
state. Children have to be indoctrinated in order to become theists.

3. Your "praying for me" has as much effect on me as a wiccan's
proclamation that he will burn chicken bones at midnight for you would
have on you.

> Even if you do not believe in God, he believes in you!

Even if you don't believe in Allah, Aphrodite, Ares, Athena, Apollo,
Artemis, Babaluaye, Bacchus, Baldur, Bast, Bellona, Brahma, Brigid,
Ceres, Cupid, Cerridwen, Demeter, Diana, Dione, Dionysus, Eris, Eos,
Eleggua, , El Shaddai, Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya,
Gaea, Lord Genesa, Hades, Hebe, Hera, Helios, Hel, Hephaestus, Hermes,
Hestia, Horus, Ibeji, Ifa, Inanna, Indra, Ishana, Ishtar, Isis, Janus,
Juno, Jehovah, Jove, Jupiter, Kali. Krishna Kronos, Korravai, Loki,
Lugh, Lord Indra, Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan,
Nahuiquiahuitl, Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun,
Oshosi, Oshun, Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto,
Persephone, Poseidon, Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea,
Saturn, Set, Selene, Shango, Lord Siva, Tammuz, Thor, Tir, Tiw, Uranus,

Venus, Vesta, Vishnu, Vesta, Vulcan, Wotan, Yahweh, Yemaya, Zeus, and thousands of others, they believe in you!

1086. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:35:41 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <9ZOdndXRttLxzareRVn-sQ@adelphia.com>
Source record: 70083
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:
> On Thu, 15 Sep 2005 12:00:29 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>Perhaps you could show me where any of the offered definitions apply to an
>>HOA rule that prohibits non family members from residing in a home.
>
>
> You said it yourself:
>
>>>refusing to take in a storm victim
>
> exactly conforms to
>
>>>>Intolerant toward others - 1645.
>
>
> otherwise, why would you offer your opinion
>
>>>while abhorrent to me
>
>
> Christian charity is not fulfilled by a shrug of the HOA committee,
> and members who enjoy the veil of these rules won't find it any easier
> getting through the eye of the needle.

When I was a young feller, I recall many stories in bible class about good Christians who defied the law to do the right thing. I thrilled to stories about Christians who defied the Nazi's to protect Jewish people who would be otherwise killed, about brave Christians who managed to survive in Communist China. Lots of wonderful inspirational stories about religious conviction and character.

My how Christianity has changed! Must be a strong religion that won't go against an HOA.

- Mike KB3EIA -

1087. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:37:15 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <qqhej1pn8oult0a10i8npli4fadridbjgb@4ax.com>
Source record: 70084

The primary responsibility for monitoring for foreign intelligence purposes during WW II, of course belonged to the military (as indeed it does today - NSA, the US cryptologic authority, from which I am a retiree, is still part of the Department of Defense). During WW II and before, the predecessors of NSA also had a number of monitoring stations around the world and the the US Coastal areas and even on the roof of the Navy Department in the "Temporary" WW I buildings on the Mall. [Temporary indeed, they weren't torn down until the US Bicentennial in 1976. They were located just about where the Vietnam Memorial is today in Washington although they extended for blocks up Constitution Avenue.] The first of these intercept operators called themselves "The On the Roof Gang" and that actually became the name of their alumni association when they had post war reunions. Many of my first supervisors in my early days at NSA were part of this group. They were doing intercept primarily for collecting enciphered messages for codebreaking and during the war that was an Army and Navy responsibility. That history is pretty well documented by the History Department at NSA and the National Cryptologic Museum at Ft. Meade, MD (Open to the public BTW) and by numerous historians. The literature about the Purple Code,the codebreaking which permitted victory at Midway, The Ultra Secret and the like can fill whole bookshelves. The story of some of these less well known contributors really does have to be told. As a retired cryptologist, I am intimately familiar with the military contributions and those of the Brits and even the Poles in Exile (Polish mathmeticians were the first to get into the German ENIGMA systems and they managed to get to Britain before they could be captured by the Germans). This FCC Radio Intelligence Division story is certain less well known (read: I hadn't heard about it before) and deserves to be known. Some of their lifesaving missions, for example are the sort of thing the military intelligence types didn't do except by serendipity, nor would they have monitored domestic broadcasting by the enemy. The military ops also would not have done any law enforcement or domestic mission.[The Posse Comitatus Act from the Indian Fighting days on the 1870's and still in force today prohibits the military (as opposed to the National Guard who technically fall under the command of state governors) from law enforcement and domestic intelligence missions.

I do remember Alegan, Michigan (and also Grand Island, NE) facilities because I got a violation notice in 1956, my first year as a ham (for the same incident) from each of these two stations for 2nd Harmonics from my 80 meter Novice band transmissions. I can't begin to tell you how scared I was as a 13 year old to have a "Federal Case" against me. 35 years later, I had a "big government meeting" with the Chief of

Staff of the FCC at FCC HQ in Washington. By then, I was a DOD/NSA executive and he was the highest ranking careerist at the Commission and I told him just how scared I was of the FCC back then. He commented that he wished all their violators took the Commission that seriously. Considering the matter at hand at that meeting (a Defense Department/FCC policy issue) he said that now maybe it was his turn to be afraid of me. :-)

Keep these stories coming. I also think that the historians at the National Cryptologic Museum would be interested in your stories. You can write me back channel on that.

Jon W3JT

On Sat, 24 Sep 2005 19:22:05 -0400, Walter Maxwell <walt@w2du.com> wrote:

> I'm aware that this post is off-topic, except that it is the basis for my
>two previous posts that were on topic to antennas. I believe it is time to
>reexamine the contributions hams and commercial radio ops made to the WW2 effort
>as they were the operating personnel of the FCC's Radio Intelligence Division.
>This is their story.
> With the War already raging in Europe in 1939, people at the State
>Department knew they were missing vital war intelligence being exchanged by
>radio, especially that going between Germany and South America. They queried the
>FCC Field Division in early 1940 about monitoring to intercept the information.
>The Field Division operated the original primary monitoring stations, performing
>regulatory and enforcement duties. However, at that time the Field Division
>personnel had their hands full just monitoring domestic operations, and had no
>time for intelligence monitoring.
> Congress was alerted to the need for additional personnel and equipment for
>the FCC to monitor intelligence, and it approved funds for establishing a new
>section, the National Defense Operating section, NDO. The NDO began operations
>September 3, 1940, and was later upgraded to a division, becoming the Radio
>Intelligence Division, RID. To head the NDO, the late George E. Sterling
>(W1AE/W3DF) was elevated from Ass't Chief Engineer, FCC, to Chief, NDO Section,
>and later to Chief, RID. To obtain personnel for the new section he instructed
>one of his assistants, the late Harriette Koster, to search through the file
>cards containing the information on licensed amateur and commercial operators.
>She selected more than 500 operators from the file cards, and over T.J. Slowie's
>signature, she sent telegrams to those selected, offering them positions of
>Radio Operator, Ass't Monitoring Officer, and Monitoring Officer. The entire
>personnel for the new NDO Section, including myself, were obtained from response
>to those telegrams. (Harrriette later became my wife, and mother of my four
>children, W2WM, WB4GNR, K4JRM, and KC4UBZ (Sue's license now expired). The
>Congressional funding also supported building many new secondary monitoring
>stations throughout the country, each equipped with Hallicrafters SX-28 and S-27
>receivers, and Adcock (sky-wave) direction finders. In addition, Hudson
>automobiles equipped with the receivers and a loop direction finder were a part
>of each secondary station, used for mobile close-in surveillance.
> Immediately following Pearl Harbor, December 7, 1941, the FCC RID mobilized

>a group from both primary and secondary monitoring stations to go to the
>Hawaiian Islands to set up eight new secondary stations, one each on Oahu,
>Molokai, Kauai, Maui, and Lanai, and three on the big island of Hawaii. NDO
>Chief Sterling accompanied the group, of which I was a member from the primary
>station at Allegan, Michigan.
> Extensive 24/7 mobile monitoring around the shoreline of all the islands
>was pursued, with the intention of finding clandestine radio operation between
>local Japanese loyal to Japan and Jap submarines cruising off shore. No such
>operations were found to occur, and no Hawaiians of Japanese descent were found
>to be disloyal to the U.S. During my stay on the Islands I worked at stations on
>Oahu, Kauai, Molokai and Hawaii.
> With Adcock direction finders at all eight secondary stations, plus the one
>at the primary station in Honolulu, the FCC saved the lives of thousands of
>military personnel and more than 600 military aircraft flying the Pacific
>between the Mainland and the Islands during WW2, after becoming lost due to
>errors in navigation with limited fuel supply. Details on how this task was
>performed, and how the Beverage antenna was used to receive broadcasts from JOAK
>Tokyo, were the subjects of my two previous posts.
> Within the next few months I'll be relating some of the 'real intelligence'
>work involving RID operations that had a significant effect on shortening WW2.
>
>Walter Maxwell, W2DU

1088. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:37:57 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <9ZOdndTRttJpzareRVn-sQ@adelphia.com>
Source record: 70085
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Percival P. Cassidy wrote:
> On 09/15/05 01:08 pm Richard Clark tossed the following ingredients into
> the ever-growing pot of cybersoup:
>
>>> Perhaps you could show me where any of the offered definitions apply
>>> to an
>>> HOA rule that prohibits non family members from residing in a home.
>
>
> <snip>
>
>> Christian charity is not fulfilled by a shrug of the HOA committee,
>> and members who enjoy the veil of these rules won't find it any easier
>> getting through the eye of the needle.
>
>
> Amen, Brother.

Make sure you get the attributes right on that Brave statement. Twern't
Richard, Twas Fred.

- Mike KB3EIA -

1089. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:38:55 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <9ZOdndfRttKzzKreRVn-sQ@adelphia.com>
Source record: 70086

Fred W4JLE wrote:
> Not to mention the purchase of a casino and the construction of a Marina.

I wonder if any of that money was used for Trips to Scotland?

- mike KB3EIA -

1090. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:41:00 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <9ZOdndbRttI2zKreRVn-sQ@adelphia.com>
Source record: 70087
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:
> On Sat, 24 Sep 2005 15:16:54 -0700, Zoran Brlecic
> <...WA7AA...@get.lost> wrote:
>
>
>>Kï¿½HB wrote:
>>
>>
>>
>>>Everyone has to believe something. I believe I'll have another martini.
>>
>>And that's pretty much the only religion I respect.
>
>
> "Pardon me while I slip out of these wet clothes and into a dry
> martini." - Groucho (or was it Bugs Bunny?)

What happened to all the old Bugs Bunny cartoons anyway?

- Mike KB3EIA -

1091. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:45:44 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <MPmdnV7FcbxUz6reRVn-rQ@comcast.com>
Source record: 70088
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>>>>In all cases, they believe and act according to their beliefs. That
>>>>>the atheists fall prey to their unrecognized beliefs cannot be
>>>>>disputed.
>>>>
>>>>And this is because you say so?
>>>
>>>Please counter the argument. If atheists do not have faith in their
>>>beliefs, then upon what basis would they judge their choices?
>>
>>First of all, atheism is non-belief in deities. That's it. Anything else
>>you're adding to this concept is your own projection.
>>Second, you're equivocating and word-playing on the term "belief". What
>>beliefs are we talking about in atheism? Atheists don't believe in gods
>>- a lack of belief is not belief any more than baldness is a hair color.
>>So, then, what beliefs? When you define this I'll "counter the argument"
>
> Belief requires faith in something unknown. I see no difference if one
> were to name that unknown G-d or call it by some other name.
> Regardless of the name, we attribute 'correctness' to something we do
> not know.

What has this got to do with atheism? I still don't see any faith or
belief in *not* believing that a magic supernatural dude created
everything. Not believing supernatural and paranormal concepts is a
default state. If you want to convince me or anyone else about your
extraordinary claim, you have to provide extraordinary evidence. Simply
saying "it is so because I say it is so" does not cut it.

>>>>>I do not deny that both are fallible, however, history demonstrates
>>>>>that the religious, despite their failures, have improved the human
>>>>>condition immeasurably where atheists have been only a blight upon
>>>>>civilization.
>>>>
>>>>??? You have got to be kidding? What has religion possibly done for
>>>>anyone except provided false hope while stealing their money?
>>>
>>>Law itself is derived directly from religious thought.
>>
>>Sometimes is, sometimes isn't. In the primitive tribal societies it was
>>much simpler to rule lawless people if you told them some god passed a
>>certain law and it just so happens that you have a direct communication

>>line with that god, so that you can interpret it. This is how religions
>>got born, and by a curious coincidence they all demanded money from
>>their followers.
>>Now, show how, for example, the American legal system is derived from
>>religion. Point out the law that makes it illegal to "covet one's ass"
>>or to eat shellfish or to wear clothes made from two different fabrics.

> American law is based upon English common law. English common law, in
> turn, is based upon "tradition, custom, and precedent."

And? Once again, what has this got to do with anything? The fact that
some laws coincide with *some* biblical or other religious "laws" does
not show that either morality or law are in any way related to the
so-called religious absolute morality.

>>>If there were no belief system, there could be no law.
>>
>>??? Look, just pulling statements out of your ass does not make them
>>believable. If you want to convince people, you have to present
>>arguments in a coherent way.
>>
>>What is so difficult about law anyway? Does it really take a genius to
>>figure out that murder, rape, slavery, genocide and theft are
>>detrimental to a society? We need some book written by ancient
>>goat-herders to tell us what laws are supposed to be? Besides, where,
>>for example, does the Bible say that slavery is wrong? Oh, that's right,
>>it doesn't - as a matter of fact, it explicitly condones it. It also
>>condones genocide, rape, infanticide and all sorts of other behavior
>>that nowadays is considered uncivilized (albeit only when perpetrated by
>>the God's chosen people against infidels). Strangely enough, there is no
>>mention of abortion in the Bible whatsoever, while one of the two wildly
>>different versions of the Ten Commandments deals with God's humongous
>>vanity.
>
> The single largest disagreement in the United States today is the
> power of government vs the power of the individual. Should each
> individual control all of his resources or do those resources
> ultimately belong to the state.

Switch and bait noted.

>>>Dictatorships have no law, that's what makes them so awful.
>>
>>??? You're not serious, are you?
>
> The trappings of law are meaningless if they do not apply equally to
> all. Dictators are the law.

This applies to all societies know to date, not only dictatorships. And
if you think the US is an exception to this rule, I have bad news for you.

>> >>Stifling science (from Galileo to stem cells), witch burning, condoning
>>
>>>>slavery, religious genocide on unprecedented scale, eradicating whole
>>>>civilizations, oppressing women, condoning fascism and
>>>>national-socialism, suppressing human rights for minorities, huge waste
>>>>of resources that could be better spent elsewhere, contributing to
>>>>millions of dead from AIDS by banning contraceptives, flaming national
>>>>and religious intolerance from Ireland to Palestine, and I could go on
>>>>forever...
>>>>
>>>>As for your "blight" comment, a majority of scientists are atheists, for
>>>>example. The percentage increases with education. That's education *not*
>>>>Kansas style.
>>>
>>>Do not attribute to religion the faults of mankind. Religion is a much
>>>broader concept than that represented by any known religion.
>>
>>No, it isn't. Your turn.
>
> Humans have many attributes, they think, they see, they stink, they
> feel, they love, they hate, etc. Among those attributes are religion.
> See Frazer's 'Golden Bough' for the parallels between all religions,
> ancient and modern. His work has had a substantial impact on the field
> of psychology.

Nevertheless, this just shows that humans, with their overdeveloped
brains, are capable of irrational, in addition to rational, thinking.
Just because humans are capable of imagining a god that makes thunder or
a god that makes the Universe or a jolly old man that brings presents,
doesn't mean they exist.

>>>While you're assessment of some religions at a particular point in
>>>time are on the mark, you overlook that same religion at an earlier or
>>>later point in time when it was substantially different.
>>>
>>>Like all things implemented by man, some succeed in their stated
>>>purpose and others fail.
>>
>>Yes, I agree that most of them succeed in their primary purpose, which
>>is allowing a class of social parasites to live off the gullible. From
>>Christianity to Scientology. The ultimate Ponzi scheme.
>
> Are speaking of governments or only religion?

Governments, much like armies, for all their faults and problems, are a
necessary evil, unless one advocates anarchy as a solution. Religion is
not.

1092. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:46:10 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <S6GdnUs8N9F5z6reRVn-uQ@adelphia.com>
Source record: 70089
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:
> Fred W4JLE wrote:
>
>> Most convicts get "religion" because it looks good for the parole board.
>
>
> True Scotsman fallacy.
>
>> The reason Jews are under represented is the high value placed on
>> education
>> by the Jewish culture. A lesson lost on the ghetto dwellers in spite
>> of the
>> fact the early civil rights fight was for an equal education.
>>
>> As long as niggers equate education with "acting white", they will
>> enslave
>> themselves far more effectively that any plantation Massa of pre War of
>> Northern Agression times.
>>
>> Once a group learns education opens the doors of opportunity, they are
>> truly
>> free.
>>
>> Your desperate grasping at straws to support atheism indicates to me, a
>> crying out on your part for someone to lead you to the path of
>> understanding. I shall pray for you my friend.
>
>
> 1. I generally don't like discussing anything with neo-Nazis, because
> their ideology is even more irrational than any superstition.
>
> 2. I don't see any straws in my arguments and atheism is a default
> state. Children have to be indoctrinated in order to become theists.
>
> 3. Your "praying for me" has as much effect on me as a wiccan's
> proclamation that he will burn chicken bones at midnight for you would
> have on you.
>
>> Even if you do not believe in God, he believes in you!
>
>
> Even if you don't believe in Allah, Aphrodite, Ares, Athena, Apollo,

> Artemis, Babaluaye, Bacchus, Baldur, Bast, Bellona, Brahma, Brigid,
> Ceres, Cupid, Cerridwen, Demeter, Diana, Dione, Dionysus, Eris, Eos,
> Eleggua, , El Shaddai, Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya,
> Gaea, Lord Genesa, Hades, Hebe, Hera, Helios, Hel, Hephaestus, Hermes,
> Hestia, Horus, Ibeji, Ifa, Inanna, Indra, Ishana, Ishtar, Isis, Janus,
> Juno, Jehovah, Jove, Jupiter, Kali. Krishna Kronos, Korravai, Loki,
> Lugh, Lord Indra, Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan,
> Nahuiquiahuitl, Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun,
> Oshosi, Oshun, Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto,
> Persephone, Poseidon, Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea,
> Saturn, Set, Selene, Shango, Lord Siva, Tammuz, Thor, Tir, Tiw, Uranus,
> Venus, Vesta, Vishnu, Vesta, Vulcan, Wotan, Yahweh, Yemaya, Zeus, and
> thousands of others, they believe in you!

Sigh.... No mention of my Turtle. It gets no respect from believers OR disbelievers..... 8^(

- Mike -

1093. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:49:17 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Eq6dnTyrDKgCzqreRVn-3w@comcast.com>
Source record: 70090
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>According to you, all atheists should be immoral by definition. It
>>follows that prisons should be overflowing with them. Yet, strangely
>>enough, in American prisons, Christians are over-represented, while
>>atheists (along with Jews and Muslims) are under-represented.
>
>
> No, I don't think atheists are amoral or unmoral, I just don't think
> it's possible to be an atheist.

Well, then, you're clearly wrong, because I, for one, along with
millions of other people, am an atheist. I don't believe in your god,
nor do I believe in any other god until you provide objective evidence
instead of wishful thinking, "knowing in one's heart" and ancient myths.

And if you still don't understand why, ask yourself why you don't
believe in Allah, Aphrodite, Ares, Athena, Apollo, Artemis, Babaluaye,
Bacchus, Baldur, Bast, Bellona, Brahma, Brigid, Ceres, Cupid, Cerridwen,
Demeter, Diana, Dione, Dionysus, Eris, Eos, Eleggua, , El Shaddai,
Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya, Gaea, Lord Genesa, Hades,
Hebe, Hera, Helios, Hel, Hephaestus, Hermes, Hestia, Horus, Ibeji, Ifa,
Inanna, Indra, Ishana, Ishtar, Isis, Janus, Juno, Jehovah, Jove,
Jupiter, Kali, Krishna, Kronos, Korravai, Loki, Lugh, Lord Indra,
Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan, Nahuiquiahuitl,
Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun, Oshosi, Oshun,
Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto, Persephone, Poseidon,
Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea, Saturn, Set, Selene,
Shango, Lord Siva, Tammuz, Thor, Tir, Tiw, Uranus, Venus, Vesta, Vishnu,
Vesta, Vulcan, Wotan, Yahweh, Yemaya and Zeus.

73 ... WA7AA

1094. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:50:24 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <BtIZe.14329$iM2.1184679@news.xtra.co.nz>
Source record: 70091
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:9ZOdndbRttI2zKreRVn-sQ@adelphia.com...

> What happened to all the old Bugs Bunny cartoons anyway?
>
> - Mike KB3EIA -

You can buy a Looney Toons collection via Amazon for a reasonable price. It doesn't have all the 'good ones', but I love it. I mean, the nephew loves it.....

Ken

1095. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:52:42 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <Eq6dnT-rDKj3yareRVn-3w@comcast.com>
Source record: 70092
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael A. Terrell wrote:

>>??? You have got to be kidding? What has religion possibly done for
>>anyone except provided false hope while stealing their money?
>
> Lets see. They have built hospitals, started schools and
> universities, fed the poor, provided them with clothes and homes, found
> them work to help them become independent.

So have communists and fascists, yet it is generally agreed that these
ideologies also belong in the history dumpster.

Point is, a normal healthy society does not need a superstition in order
to take care of the fellow citizen.

73 ... WA7AA

1096. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:56:21 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <p_WdnagAf_HeyKreRVn-oQ@adelphia.com>
Source record: 70093
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:

> And if you still don't understand why, ask yourself why you don't
> believe in Allah, Aphrodite, Ares, Athena, Apollo, Artemis, Babaluaye,
> Bacchus, Baldur, Bast, Bellona, Brahma, Brigid, Ceres, Cupid, Cerridwen,
> Demeter, Diana, Dione, Dionysus, Eris, Eos, Eleggua, , El Shaddai,
> Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya, Gaea, Lord Genesa, Hades,
> Hebe, Hera, Helios, Hel, Hephaestus, Hermes, Hestia, Horus, Ibeji, Ifa,
> Inanna, Indra, Ishana, Ishtar, Isis, Janus, Juno, Jehovah, Jove,
> Jupiter, Kali, Krishna, Kronos, Korravai, Loki, Lugh, Lord Indra,
> Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan, Nahuiquiahuitl,
> Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun, Oshosi, Oshun,
> Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto, Persephone, Poseidon,
> Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea, Saturn, Set, Selene,
> Shango, Lord Siva, Tammuz, Thor, Tir, Tiw, Uranus, Venus, Vesta, Vishnu,
> Vesta, Vulcan, Wotan, Yahweh, Yemaya and Zeus.

Doggone it Zoran! Put in the Turtle... pleeze! He goes away if no one
believes in him!

- Mike

1097. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:58:14 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <p_WdnasAf_EoyKreRVn-oQ@adelphia.com>
Source record: 70094
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Ken Taylor wrote:
> "Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
> news:9ZOdndbRttI2zKreRVn-sQ@adelphia.com...
>
>
>>What happened to all the old Bugs Bunny cartoons anyway?
>>
>>- Mike KB3EIA -
>
>
> You can buy a Looney Toons collection via Amazon for a reasonable price. It
> doesn't have all the 'good ones', but I love it. I mean, the nephew loves
> it.....

I'm badly in need of a Foghorn Leghorn fix! 8^)

trying to kill this thread with inanity......

But I am serious about needing the old WB cartoons 8^)

- Mike -

1098. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 01:58:47 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433755d8$0$22205$39cecf19@news.twtelecom.net>
Source record: 70095
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:

> Matt Osborn wrote:
>
>>> According to you, all atheists should be immoral by definition. It
>>> follows that prisons should be overflowing with them. Yet, strangely
>>> enough, in American prisons, Christians are over-represented, while
>>> atheists (along with Jews and Muslims) are under-represented.
>>
>>
>>
>> No, I don't think atheists are amoral or unmoral, I just don't think
>> it's possible to be an atheist.
>
>
>
> Well, then, you're clearly wrong, because I, for one, along with
> millions of other people, am an atheist. I don't believe in your god,
> nor do I believe in any other god until you provide objective evidence
> instead of wishful thinking, "knowing in one's heart" and ancient myths.
>
> And if you still don't understand why, ask yourself why you don't
> believe in Allah, Aphrodite, Ares, Athena, Apollo, Artemis, Babaluaye,
> Bacchus, Baldur, Bast, Bellona, Brahma, Brigid, Ceres, Cupid, Cerridwen,
> Demeter, Diana, Dione, Dionysus, Eris, Eos, Eleggua, , El Shaddai,
> Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya, Gaea, Lord Genesa, Hades,
> Hebe, Hera, Helios, Hel, Hephaestus, Hermes, Hestia, Horus, Ibeji, Ifa,
> Inanna, Indra, Ishana, Ishtar, Isis, Janus, Juno, Jehovah, Jove,
> Jupiter, Kali, Krishna, Kronos, Korravai, Loki, Lugh, Lord Indra,
> Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan, Nahuiquiahuitl,
> Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun, Oshosi, Oshun,
> Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto, Persephone, Poseidon,
> Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea, Saturn, Set, Selene,
> Shango, Lord Siva, Tammuz, Thor, Tir, Tiw, Uranus, Venus, Vesta, Vishnu,
> Vesta, Vulcan, Wotan, Yahweh, Yemaya and Zeus.
>
>
> 73 ... WA7AA
>

You forgot J.R. "Bob" Dobbs of the Church of the SubGenius.

http://www.subgenius.com/

tom
K0TAR

1099. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:02:41 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <CP-dnf8zha9cy6renZ2dnUVZ_tOdnZ2d@comcast.com>
Source record: 70096
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Mike Coslo wrote:

> Zoran Brlecic wrote:
>
>> And if you still don't understand why, ask yourself why you don't
>> believe in Allah, Aphrodite, Ares, Athena, Apollo, Artemis, Babaluaye,
>> Bacchus, Baldur, Bast, Bellona, Brahma, Brigid, Ceres, Cupid,
>> Cerridwen, Demeter, Diana, Dione, Dionysus, Eris, Eos, Eleggua, , El
>> Shaddai, Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya, Gaea, Lord
>> Genesa, Hades, Hebe, Hera, Helios, Hel, Hephaestus, Hermes, Hestia,
>> Horus, Ibeji, Ifa, Inanna, Indra, Ishana, Ishtar, Isis, Janus, Juno,
>> Jehovah, Jove, Jupiter, Kali, Krishna, Kronos, Korravai, Loki, Lugh,
>> Lord Indra, Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan,
>> Nahuiquiahuitl, Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun,
>> Oshosi, Oshun, Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto,
>> Persephone, Poseidon, Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea,
>> Saturn, Set, Selene, Shango, Lord Siva, Tammuz, Thor, Tir, Tiw,
>> Uranus, Venus, Vesta, Vishnu,
>> Vesta, Vulcan, Wotan, Yahweh, Yemaya and Zeus.
>
>
> Doggone it Zoran! Put in the Turtle... pleeze! He goes away if no
> one believes in him!

Well, the list is only partial. For the complete listing, send me $7000
and I promise to give some of it to charity in order to appear to be
doing something useful.
Hey, it works for TV preachers.

73 ... WA7AA

1100. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:07:25 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xJIZe.627$Fi3.579@newssvr29.news.prodigy.net>
Source record: 70097
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:
> 2. I don't see any straws in my arguments and atheism is a default
> state. Children have to be indoctrinated in order to become theists.

The straw is that there seems to be something in human nature that
needs to believe in a higher power. Myths and religion wouldn't
exist unless they fulfilled some need. One reason that we are more
successful than our ape cousins is that we can control the bullies
in our society. Religion helps to accomplish that control.
--
73, Cecil http://www.qsl.net/w5dxp

1101. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:12:47 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <43375952.B78B60FB@earthlink.net>
Source record: 70098
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Mike Coslo wrote:
>
> I'm badly in need of a Foghorn Leghorn fix! 8^)
>
> trying to kill this thread with inanity......
>
> But I am serious about needing the old WB cartoons 8^)
>
> - Mike -

I find some of the old cartoons on DVDs at the local dollar store.
I've bought about 20, so far. ;-)

--
?

Michael A. Terrell
Central Florida

1102. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:15:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dh7lj6$q4n$1@mail.specsol.com>
Source record: 70099

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> Jim,

> To measure SWR on the line it is necessary to place the SWR meter at
> the antenna end of the line. Even then it gives the correct answer
> only when the line impedance is 50 ohms.

Well, duh.

Anyone that doesn't know that SWR is with reference to a stated
impedance or that SWR is influenced by the characteristics of a
real transmission line just isn't paying attention.

> But the SWR meter is always placed immediately adjacent to the
> transmitter. Whatever the meter indicates it is not SWR because there
> is no line on which to measure it. The meter is telling lies.

Errr, no, the meter is telling what it sees at the point of measurement.

If the measurer is so opaque that he/she doesn't take line influences
into account, it is hardly the fault of the measuring instrument that
what is reported is not the SWR of the antenna at the specified
impedance.

> The meter indicates only whether or not the transmitter is loaded with
> a resistance of 50 ohms. Which is ALL you want to know. It tells you
> nothing more and nothing less.

Basically true given the stated conditions, and all that is probably
of interest for the average ham.

> This is, of course, a very valuable function of the instrument. But
> it is NOT behaving as an SWR meter. Its name should be changed to
> Transmitter Loading Indicator (TLI).

Uttern nonsense; the instrument is still behaving as a SWR meter but
the user is not applying it per spec and not correcting measurement
error caused by line position.

By this logic we have a lot of names to change. For starters:

PAM has to change the name of their cooking spray to: Teenage looser
get high in a can.

Screwdriver manufacturers have to change the name of their product
to: General prying instrument and paint can lid removal tool.

You may add others.

> To use the name "SWR meter" and to imagine it is actually measuring an
> SWR is seriously misleading and is a source of confusion about what is
> really going on.

Nonsense, the meter is always measuring SWR but the user is obviously
not measuring the SWR that would be seen at the end of the line.

You can't fault the instrument for it's misuse by the ignorant.

What would you call a low impedance voltmeter used by some nimrod
to measure voltage in a high impedance circuit?

> It is why there are perpetual arguments and misunderstandings about
> SWR, tuners and related matters on this newsgroup and in every other
> place.

That is probably true since most people are opaque as to what goes
on on a real transmission line, but not everyone is.

> Change the name to TLI, which is what it really does. Novices will not
> be lead astray, clear thinking will prevail, false ideas will not take
> root to remain embedded for the remainder of one's radio career.

Clear thinking would demand that the influences of a real line on the
observered SWR at an arbitrary point be explained.

> Air pressure indicators instead of airspeedometers are OK because air
> pressure actually exists.

Non sequitur; SWR actually exists. Getting an accurate measurment is
another issue and a matter of education.

> SWR meters are NOT OK because there is no line for SWR to exist on.
> (At least not where the meter is imagined or supposed to measure it.)

Nonsense.

> Makes a change from cavity magnetrons.

More nonsense and not even a sentence.

About the only difference between microwave and HF is that it is a lot
easier to build a line, i.e. waveguide, that approximates a theoretical
ideal lossless transmission line for reasonable distances at microwave
than it is to build lossless coax as commonly used at HF.

All the theory remains the same.

Personally, I have never had any problem with understanding what it is
that a SWR meter displays.

> ----
> Reg.

--
Jim Pennino

Remove .spam.sux to reply.

1103. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:15:20 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <d9WdnUJVw9wkxKreRVn-sA@adelphia.com>
Source record: 70100
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael A. Terrell wrote:
> Mike Coslo wrote:
>
>> I'm badly in need of a Foghorn Leghorn fix! 8^)
>>
>> trying to kill this thread with inanity......
>>
>> But I am serious about needing the old WB cartoons 8^)
>>
>> - Mike -
>
>
>
> I find some of the old cartoons on DVDs at the local dollar store.
> I've bought about 20, so far. ;-)
>

Heh! I'm beginning to think I need to get out more, Mike! 8^)

- mike -

1104. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:16:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <QRIZe.628$Fi3.469@newssvr29.news.prodigy.net>
Source record: 70101
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:
> Just because humans are capable of imagining a god that makes thunder or
> a god that makes the Universe or a jolly old man that brings presents,
> doesn't mean they exist.

On the contrary, human imagination brings lots of concepts into
existence. Your words, above, are just one example. Your word,
"god", represents a concept that does indeed exist. "Love" is
another concept that exists although I have never seen a drop
of love.
--
73, Cecil http://www.qsl.net/w5dxp

1105. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:21:46 UTC
From: Mike Andrews <mikea@mikea.ath.cx>
Message-ID: <dh7lvq$572$1@puck.litech.org>
Source record: 70102
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
In rec.radio.amateur.dx Zoran Brlecic <...WA7AA...@get.lost> wrote:
> Matt Osborn wrote:

>>>>>>In all cases, they believe and act according to their beliefs. That
>>>>>>the atheists fall prey to their unrecognized beliefs cannot be
>>>>>>disputed.
>>>>>
>>>>>And this is because you say so?
>>>>
>>>>Please counter the argument. If atheists do not have faith in their
>>>>beliefs, then upon what basis would they judge their choices?
>>>
>>>First of all, atheism is non-belief in deities. That's it. Anything else
>>>you're adding to this concept is your own projection.
>>>Second, you're equivocating and word-playing on the term "belief". What
>>>beliefs are we talking about in atheism? Atheists don't believe in gods
>>>- a lack of belief is not belief any more than baldness is a hair color.
>>>So, then, what beliefs? When you define this I'll "counter the argument"
>>
>> Belief requires faith in something unknown. I see no difference if one
>> were to name that unknown G-d or call it by some other name.
>> Regardless of the name, we attribute 'correctness' to something we do
>> not know.

> What has this got to do with atheism?

More to the point, what has this got to do with alt.ham-radio.vhf-uhf,
rec.radio.amateur.antenna, rec.radio.amateur.dx, or
rec.radio.amateur.equipment?

Please, folks, take it to E-mail or to some group more suited to discussion
of philosophy and religion. I'd like to see something having to do with radio
here.

Apropos which, I see on the R-390 list that someone actually managed
to hear SAQ's arc broadcast on 17.2 KHz last week.

--
Mike Andrews, W5EGO
mikea@mikea.ath.cx
Tired old sysadmin
```

1106. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 02:55:32 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <qaoej15d3su5d02jkpe603s1r30lohqd99@4ax.com>
Source record: 70103
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sun, 25 Sep 2005 16:44:00 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>When the professor regained his senses and could speak he asked: "What the
>hell is the matter with you?! Why did you do that?" "God was really busy
>protecting America's soldiers, who are protecting your right to say stupid
>things and act like a jerk !!! So he sent me!!"
>
>
>ONE NATION UNDER GOD!!!

Just what we need - a bunch of testosterone-charge assholes punching
out people that don't believe in their god. It's pretty obvious who
the real jerk is in your story, and it isn't the professor.

1107. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 03:13:56 UTC
From: kashe@sonic.net
Message-ID: <rqpej1t600suocm53q5i6flrlb6r7j27l2@4ax.com>
Source record: 70104
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 06:42:51 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Thu, 22 Sep 2005 03:16:14 GMT, kashe@sonic.net wrote:
>
>>On Mon, 19 Sep 2005 22:22:10 -0400, Uncle Ted <malican40@verizon.com>
>>wrote:
>>
>>>On Mon, 19 Sep 2005 05:41:38 GMT, kashe@sonic.net wrote:
>>>
>>>>>>>It's bad enough that people feel a need to believe in any deities at
>>>>>>>all, but when you have to listen to a bunch of old men in robes half a
>>>>>>>world away tell you how to live your life, you're pretty screwed up.
>>>>>>
>>>>> Is this a slam against our Muslim brethren? A comment on the
>>>>>position of Saudi Arabian women?
>>>>
>>>>Pope worshipers and Mohamahdists are all the same to me...
>>>
>>> That says more about you than about them.
>>
>>Such as?

If you have to ask ....

1108. Re: highwind,rohn25,stayerect???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 03:54:48 UTC
From: W2RAC <w2racNOSPAM@cfl.rr.com>
Message-ID: <17sej1t8uo30m4kqkdkfeq48mhu9gvsllb@4ax.com>
Source record: 70105

My Rohn 25 is as follows
42' high then 6' of mast pipe for a total of 48'
no guys.
It is anchored with 1yd cube concrete and mounted to a house bracket
9' from bottom.

Antennas at that time where a dual band vertical 7' tall and a discone
mounted on a homemade side arm and a hf dipole.

It survived all the 2004 Hurricanes here in Daytona Beach FL with
known winds of 100 mph.

Granted, as I install more antennas (couple of yagi's and rotor) I
will want to add a set of guy's.

On Sat, 24 Sep 2005 14:13:48 GMT, Cecil Moore <mycall@arrl.net> wrote:

>lorentsonci@lycos.com wrote:
>> What should a rohn 25 properly guyed, 50ft tower with two meter/440
>> ground plane antennas be able to 'handle high wind wise'??
>> Watching the news/weagther, I feel some will 'bite the dust'.
>> Appreciate your input. cl.
>
>A properly guyed (2 sets of 3) 50 ft. Rohn 25 in a
>minimum recommended configuration will support 10.5
>sq. ft. of antenna at 70 mph or 5 sq. ft. at 110 mph
>according to my Rohn drawings.

ï¿½ï¿½ï¿½ï¿½zExif

1109. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 04:09:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <81ba1$4337749f$97d56a13$32473@ALLTEL.NET>
Source record: 70106
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

How can you tell if someone is a liberal?

Tell any joke, and they will find a way to take umbrage with it to show how
politically correct they are...

"Uncle Ted" <malican40@verizon.com> wrote in message
news:qaoej15d3su5d02jkpe603s1r30lohqd99@4ax.com...
> On Sun, 25 Sep 2005 16:44:00 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
> >When the professor regained his senses and could speak he asked: "What
the
> >hell is the matter with you?! Why did you do that?" "God was really busy
> >protecting America's soldiers, who are protecting your right to say
stupid
> >things and act like a jerk !!! So he sent me!!"
> >
> >
> >ONE NATION UNDER GOD!!!
>
> Just what we need - a bunch of testosterone-charge assholes punching
> out people that don't believe in their god. It's pretty obvious who
> the real jerk is in your story, and it isn't the professor.
>

1110. Re: SWRing The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 04:40:30 UTC
From: "John Doe"
Message-ID: <43377bbc$0$21275$afc38c87@news.optusnet.com.au>
Source record: 70108

Ah, Reggie & Richie.
I tried SWRing once.
My mother washed my mouth out with soap & water!

1111. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 05:22:12 UTC
From: Rockinghorse Winner <rockinghorse@anonymous.to>
Message-ID: <8ALZe.287$Aw.4479@typhoon.sonic.net>
Source record: 70109

Bob Miller <NOSPAM@neosoft.com> writes:

>Some lengths work better than others, depending on band. See the web
>site, http://www.qsl.net/w5dxp and look at the "tunerless" all band
>antenna fed w/ladderline.

>bob
>k5qwg

Thanks fer info. I'll check it out--
R*Horse rwinner.blogspot.com

1112. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 05:31:47 UTC
From: Cmdr Buzz Corey <me@that.moc>
Message-ID: <Jv2dnXDqtahW5areRVn-3g@gbronline.com>
Source record: 70107
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:
> On Sun, 25 Sep 2005 16:44:00 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>
>>When the professor regained his senses and could speak he asked: "What the
>>hell is the matter with you?! Why did you do that?" "God was really busy
>>protecting America's soldiers, who are protecting your right to say stupid
>>things and act like a jerk !!! So he sent me!!"
>>
>>
>>ONE NATION UNDER GOD!!!
>
>
> Just what we need - a bunch of testosterone-charge assholes punching
> out people that don't believe in their god. It's pretty obvious who
> the real jerk is in your story, and it isn't the professor.
>

It's a joke son.

1113. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 05:32:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <821fj1dkcfssb8u8rajkend0jip9l8cmmi@4ax.com>
Source record: 70110
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sun, 25 Sep 2005 21:37:57 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

>Percival P. Cassidy wrote:
>> On 09/15/05 01:08 pm Richard Clark tossed the following ingredients into
>> the ever-growing pot of cybersoup:
>>>> Perhaps you could show me where any of the offered definitions apply
>>>> to an
>>>> HOA rule that prohibits non family members from residing in a home.
>> <snip>
>>> Christian charity is not fulfilled by a shrug of the HOA committee,
>>> and members who enjoy the veil of these rules won't find it any easier
>>> getting through the eye of the needle.
>> Amen, Brother.
> Make sure you get the attributes right on that Brave statement. Twern't
>Richard, Twas Fred.

Hi Mike,

Perce was commending me (or so I read the reply to my post, which had
quoted Fred's top post (which makes attribution complex)).

Either way, what is more amusing is the anal-retentive attention given
to forcing the metaphor of the Camel to come out "correctly" by
successive writers and critics (thus proving it is easier to go to
hell through accuracy than get to heaven with style). Of course, none
of this matches the absolutely amateur religious instruction on what
constitutes an atheist - again, the toboggan run to hell paved with
definitions, examples and references reaching back to the dawn of the
crusades as proof.

Style is found in:
"Now I saw in my dream that Christian and Hopeful forsook Mr. By-ends,
and kept their distance before him; but one of them looking back, saw
three men following Mr. By-ends, and behold, as they came up with him,
he made them a very low bow; and they also gave him a compliment. The
men's names were Mr. Hold-the-world, Mr. Money-love, and Mr. Save-all;
men that Mr. By-ends had formerly been acquainted with; for in their
minority they were schoolfellows, and were taught by one Mr.
Gripe-man, a schoolmaster in Love-gain, which is a market town in the
county of Coveting, in the north. This schoolmaster taught them the
art of getting, either by violence, cozenage, flattery, lying, or by
putting on the guise of religion; and these four gentlemen had
attained much of the art of their master, so that they could each of

them have kept such a school themselves.

"Well, when they had, as I said, thus saluted each other, Mr. Money-love said to Mr. By-ends, Who are they upon the road before us? (for Christian and Hopeful were yet within view).

"BY-ENDS. They are a couple of far countrymen, that, after their mode, are going on pilgrimage.

"MONEY-LOVE. Alas! Why did they not stay, that we might have had their good company? for they, and we, and you, Sir, I hope, are all going on pilgrimage.

"BY-ENDS. Why, they, after their headstrong manner, conclude that it is duty to rush on their journey all weathers; and I am for waiting for wind and tide. They are for hazarding all for God at a clap; and I am for taking all advantages to secure my life and estate. They are for holding their notions, though all other men are against them; but I am for religion in what, and so far as the times, and my safety, will bear it. They are for religion when in rags and contempt; but I am for him when he walks in his golden slippers, in the sunshine, and with applause."

Auditions for readings follow this posting.

73's
Richard Clark, KB7QHC

1114. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 07:53:36 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <ILSdnd9v5sSJNKreRVn-iw@comcast.com>
Source record: 70111
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>>Belief requires faith in something unknown. I see no difference if one
>>
>>were to name that unknown G-d or call it by some other name.
>>
>>>Regardless of the name, we attribute 'correctness' to something we do
>>>not know.
>>
>>What has this got to do with atheism? I still don't see any faith or
>>belief in *not* believing that a magic supernatural dude created
>>everything. Not believing supernatural and paranormal concepts is a
>>default state. If you want to convince me or anyone else about your
>>extraordinary claim, you have to provide extraordinary evidence. Simply
>>saying "it is so because I say it is so" does not cut it.
>
>
> May I suggest you read the 'Golden Bough' by Frazer, for starters. The
> belief in the unknown is universal, it is a fundamental part of the
> human psyche.
>
> When you say " I still don't see any faith or belief in *not*
> believing that a magic supernatural dude created everything", you are
> merely saying that what you believe is better than what the other guy
> believes.

Not at all, I keep saying, and you refuse to hear it, that I d-o n-o-t
b-e-l-i-e-v-e i-n y-o-u-r g-o-d-s. Any of them.

Once again, absence of belief is not a belief. Let me illustrate:
suppose that someone accuses you of being a witch. He has no evidence,
other than he believes he saw you kill someone's cow with a spell. Now,
you obviously don't "believe that you're not" a witch, do you? It would
seem that his claim needs evidence/proof and you have nothing to believe
in and nothing to prove.
So now you're saying that his belief and your "belief" are somehow similar?

> What you seem to be doing is standing on soap box and claiming that
> Atheism is correct and religion is not. That Atheism has basis in
> fact where other religions are based on superstitions.
> Atheism is exactly the same in all fundamental respects as any other
> religion. Atheism, in other words doesn't exist, it cannot exist in
> any real sense. Rather than I proving that an elephant can't fly, why
> don't you prove that it can?

Why don't you prove that your gods, devils and angels exist first, before engaging in the standard theist shifting of the burden of proof. If you have nothing to show for your gods other than the usual begging the question and other logical fallacies, then I don't have to entertain your hypothesis with any more seriousness than the hypothesis that the Universe was farted out of the Super-Nuclear Donkey's butt yesterday afternoon.

Either way, Matt, you keep spinning the old tired religious nonsense about atheism being just another theism, because that's pretty much the only thing they can say on the matter, other than engaging in the ad hominem about atheists' immorality, that is.

However, none of this would matter one bit and I would care about Christianity as much as I care about some Amazon tribe's river gods, if it weren't for the fact that the religious right affects my life in the profoundly negative way, and the list is getting longer by the day: health research, contraceptives, euthanasia, abortion, education, politics, freedom of expression, "morality" laws, taxes, phony illegal wars, etc.

Americans have almost absolute freedom to practice their religion in their homes and in their churches as they please, but that is never enough for the Christian Taliban, is it? They won't be happy until this country becomes a Christian Saudi Arabia.

73 ... WA7AA

1115. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 07:59:50 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <h5GdncE26P7qN6reRVn-oQ@comcast.com>
Source record: 70112
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:

>> Just because humans are capable of imagining a god that makes thunder
>> or a god that makes the Universe or a jolly old man that brings
>> presents, doesn't mean they exist.
>
> On the contrary, human imagination brings lots of concepts into
> existence.

Read my sentence more carefully, Cecil.

> Your words, above, are just one example. Your word,
> "god", represents a concept that does indeed exist. "Love" is
> another concept that exists although I have never seen a drop
> of love.

I am not arguing that the *concept* of a god does not exist. I am arguing that in the absence of any evidence of the existence of the alleged gods, as well as considering the preponderance of scientific evidence contrary to all known religious scriptures, it is silly to believe in any of them. And why? Because some 5000 year old goat-bugger had too much to drink one day while trying to figure out stuff no one will ever know.

73 ... WA7AA

1116. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 08:11:34 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <1eadnVR7S-qqMKreRVn-og@comcast.com>
Source record: 70113
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>Well, then, you're clearly wrong, because I, for one, along with
>>millions of other people, am an atheist. I don't believe in your god,
>>nor do I believe in any other god until you provide objective evidence
>>instead of wishful thinking, "knowing in one's heart" and ancient myths.

> You have made no case for atheism. All you have done is list a series
> of things in which do not believe. You have not listed what you do
> believe or in what you have placed your faith.

What difference does it make what I "believe"? When it comes to blind faith in the supernatural and paranormal, I believe none of it until it can be scientifically repeated, falsified and explained. Other than that, I believe the Sun will rise tomorrow and I believe in peace and love, and I believe I'll have a beer. But please don't go confusing these three "beliefs" with the belief in the supernatural. This is the equivocation game and it's dishonest.

> Atheism is a logically faulty concept. Being human, you cannot
> possibly know everything.

What difference does this make? I don't know how the Universe began and quite possibly no one will ever know exactly, but does that mean we can simply pull the "answers" out of our asses? I am not playing the god of the gaps game either. That's just stupid.

> What you may think of the unknown is
> entirely up to you, but whatever that may be, will require just as
> much faith as any other religion. Your religion simply has different
> trappings.

[sigh] I suppose it's hopeless.

You keep blindly repeating what your voodoo practitioners told you, and are unwilling to accept that atheists get to define what atheism is - not you. So feel free to believe (no pun) that atheism is religion or that atheists "deny" God, but I am telling you that the only thing that atheism is, is the absence of belief in gods. Period.

And to everyone's relief, this will be my last post. Whoever wants to follow up is free to transfer the discussion to alt.atheism, soc.atheism or talk.atheism.

73 ... WA7AA

1117. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 10:23:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh8i7d$5uj$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70114

> Errr, no, the meter is telling what it sees at the point of
measurement.
>
==========

But the meter is not seeing an SWR because an SWR does not exist.

Where is the 50-ohm transmission line on which the SWR is imagined or
supposed to lie?

As you are unable to answer that question, the remainder of your
argument (which, as I say, arises because of the SWR meter misleading
misnomer) falls flat on its face.

You are an intelligent person. I don't doubt you have no problems
with understanding what the so-called SWR meter really indicates. But
you didn't learn this from observations of the SWR meter - as you
already know it tells lies!

Just to reiterate, the so-called SWR meter indicates only whether or
not the load on the transmitter is a resistive 50 ohms. If it is not
50 ohms it will not tell you what it actually is. Not that you need to
know what it actually is because you will readjust your tuner, without
thinking about it, to make it equal to 50 ohms. Which corresponds to
no deflection of the meter needle.

The TLI is a very useful and valuable device. It does not lead
novices and old-wives (who ought to know better) into false ideas, or
cause confusion and misunderstandings within the amateur fraternity.
Professionals dismiss SWR for what it is worth anyway.

Goodby to SWR except on lines where it matters and where it can be
measured. Which, in practice, are very few.

Reg, G4FGQ.

1118. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 11:34:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh8mba$1fg$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70115
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

> What happened to all the old Bugs Bunny cartoons anyway?
>
> - Mike KB3EIA -

==========

It is unfortunate that Hollywood so long has dominated the world's supposedly desirable standards of human behaviour and described, by countless examples in films, the ficticious and imagined way of life in the USA. But the truth about real life went to pot after Charlie Chaplin and others were expelled from your shores.

Things may be different now that the Japanese wealth and enterprise have taken over Hollywood. But perhaps it is too late. The Internet, not Hollywood, is taking over the dissemination of ideas. Big Brother Rules!

They who own and control the means of communication will rule the Earth.

Makes a change from so-called SWR meters.

Reg, G4FGQ.

1119. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 12:27:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh8pge$b6q$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70116
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

> Your belief in no G-d is no different than any belief in G-d.

==========

It is noticed that you are sufficiently superstitious and afraid of
the deity even to use, in print, the full name and description of
"god".

How do you manage in normal conversation to convey your ideas?

Reg.

1120. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 12:31:15 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <Btidnf6WO-kJd6reRVn-uQ@comcast.com>
Source record: 70117

The reference to Cecil's web site is VG if you do not want to use a
tuner. Cecil does a great job with tuning stubs. I use a tuner.

Some have stated that multiples of 1/2 wavelength can produce RF in the
shack. In 50+ years I have not experienced this. I may be JUST LUCKY!

Do you plan on using a tuner?

Rockinghorse Winner wrote:
> Ham op <hamop@comcast.net> writes:
>
>
>
>>My installation is as follows: 1) 600 ohm open wire line [tuned of
>>course!] from the antenna to a protected [from WX] area under the sun
>>porch. There I simply connected 450 ohm ladder line to the 600 ohm line
>>for the run into the house. [450 ohm line has increased losses in bad
>>WX]. As mentioned in another response, I run the 450 ohm line at right
>>angles over metal structures. I keep the line a least 6 inches from
>>pipes, heating vents etc and twist the line one twist every three [+/-]
>>feet.
>
>
>>I run 1 KW 80 through 20 meters with NO interference or RFI in the
>>shack. This computer is located 3 feet from the amplifier and has no
>>adverse effects from the amplifier. BTW, my station is grounded
>>[earthed] IAW electrical code.
>
>
> Are there any lengths for the xmission line one should avoid when feeding
> different types of wire antenna?
>

1121. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 12:37:31 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <q4OdnUPMy5iQcareRVn-pA@comcast.com>
Source record: 70118
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:

> On Sun, 25 Sep 2005 16:44:00 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>
>>When the professor regained his senses and could speak he asked: "What the
>>hell is the matter with you?! Why did you do that?" "God was really busy
>>protecting America's soldiers, who are protecting your right to say stupid
>>things and act like a jerk !!! So he sent me!!"
>>
>>
>>ONE NATION UNDER GOD!!!
>
>
> Just what we need - a bunch of testosterone-charge assholes punching
> out people that don't believe in their god. It's pretty obvious who
> the real jerk is in your story, and it isn't the professor.

There is one anecdotal saying that is proper for this point:

Let this thread return to amateur radio topics.

P L E A S E !!!!!!!!!!!!!
>

1122. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 12:50:47 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <9LKdnb2hbpS0cqreRVn-gQ@comcast.com>
Source record: 70119

Mike Coslo wrote:

> Fred W4JLE wrote:
>
>> Even more frustrating is the number of school buses controlled by a black
>> Mayor that never were put in to evacuation service. The same buses now
>> set
>> in water and I am sure they will be replaced at taxpayers expense.
>>
>> As I was somewhat involved in the political debacle, I can tell you from
>> personal experience that Red Cross and amateur radio vans were prohibited
>> from entering the disaster area.
>>
>> My cynical side says that in the background, a chance was both seen and
>> taken to make George Bush look bad. The democrat political machine in New
>> Orleans is only surpassed by that of Chicago.
>
>
> It is a tad more than that, Fred.
>
> One of the things that causes me to question the astuteness of so
> many Republicans is that they steadfastly refuse to take any
> responsibility for anything. Ever.
>
> They are in power now. They hold the House, the Senate, and the
> White House. They quite simply ARE responsible by default.
>
SNIPPED in the interest of saving meaningless reading time.

Mike, It seems that you do NOT understand the Federalist, philosophic
and political principle of Subsidiarity.

In a Federalist system, such as the USA, responsibility begins at the
LOWEST level of government and rises as the problems exceed local
capability. Then local government [eg. city] requests assistance from
the next level of government [eg county]. County, after they cannot
assist, requests assistance from state. State then requests assistance
from regional or Federal government. It does take time for things to rise.

In you view the national government, GW Bush, is 100% responsible if a
city fence falls into your backyard. It doesn't work that way.

Also, you seem to forget that the MOST POWERFUL person in the National
Government is NOT the President. It's not even in the Executive Branch.
Do you know who it is? Think about it!

1123. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 13:33:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CMSZe.2767$KQ5.690@newssvr12.news.prodigy.com>
Source record: 70120
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> Atheism is exactly the same in all fundamental respects as any other
> religion.

If an atheist believes only in things that can be proven using
the scientific method, he is the *exact opposite* of a religious
person who substitutes blind faith for scientific inquiry.

> Atheism, in other words doesn't exist, it cannot exist in
> any real sense.

This is known in scientific logic as begging the question. The
onus of proof is upon you to first prove that a supreme supernatural
being exists. Only after you accomplish that scientific feat of
classic logic would you be in a position to discuss the implications.

> Rather than I proving that an elephant can't fly, why
> don't you prove that it can?

The onus of proof is upon the person who asserts the positive
premise which is: "God exists." Until you prove your premise, all
of your arguments are easily recognized as logical diversions.
Therefore all of your statements must be prefaced with:
"If and only if my particular God exists, ...".

If the existence of God were ever proven beyond a reasonable doubt
and atheists continued to disbelieve, then atheism would become a
religion, but not before.
--
73, Cecil http://www.qsl.net/w5dxp

1124. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 14:04:18 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CdTZe.690$Fi3.650@newssvr29.news.prodigy.net>
Source record: 70121
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> You have made no case for atheism.

Not that I'm an atheist, but here is the case for atheism: The
existence of even one of the following as a supernatural being
has never been proven.

Allah, Aphrodite, Ares, Athena, Apollo, Artemis, Babaluaye,
Bacchus, Baldur, Bast, Bellona, Brahma, Brigid, Ceres, Cupid, Cerridwen,
Demeter, Diana, Dione, Dionysus, Eris, Eos, Eleggua, , El Shaddai,
Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya, Gaea, Lord Genesa, Hades,
Hebe, Hera, Helios, Hel, Hephaestus, Hermes, Hestia, Horus, Ibeji, Ifa,
Inanna, Indra, Ishana, Ishtar, Isis, Janus, Juno, Jehovah, Jove,
Jupiter, Kali, Krishna, Kronos, Korravai, Loki, Lugh, Lord Indra,
Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan, Nahuiquiahuitl,
Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun, Oshosi, Oshun,
Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto, Persephone, Poseidon,
Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea, Saturn, Set, Selene,
Shango, Lord Siva, Tammuz, Thor, Tir, Tiw, Uranus, Venus, Vesta, Vishnu,
Vesta, Vulcan, Wotan, Yahweh, Yemaya and Zeus

Even the very existence of a supernatural dimension or realm has never
been proven.

Religion is based on blind faith and beliefs in things that cannot be
proven. Atheism is based on an absence of blind faith and beliefs in
things that can be proven beyond a reasonable doubt.
--
73, Cecil http://www.qsl.net/w5dxp

1125. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 14:12:40 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <slTZe.695$Fi3.640@newssvr29.news.prodigy.net>
Source record: 70122
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:
> I am not arguing that the *concept* of a god does not exist.

I know, Zoran, the devil made me do it. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1126. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 14:30:45 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <dr0gj1pl3v5ki2u9gegtocrcsmad2uq15e@4ax.com>
Source record: 70026
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sun, 25 Sep 2005 22:31:47 -0700, Cmdr Buzz Corey <me@that.moc>
wrote:

>> Just what we need - a bunch of testosterone-charge assholes punching
>> out people that don't believe in their god. It's pretty obvious who
>> the real jerk is in your story, and it isn't the professor.
>>
>
>It's a joke son.

Yes, and I've heard this joke told before by people who think they're
being clever. Unfortunately, there are too many people that have this
mentality in real life. They are the ones who say, "You're free, as
long as you think the same way as me."

1127. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 14:33:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <oFTZe.703$Fi3.133@newssvr29.news.prodigy.net>
Source record: 70123
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> In all of our science and knowledge, we have yet to find random
> things.

False. Certain characteristics of entangled particles are
completely random and must remain so in order to avoid faster
than light transfer of information, something presently
considered to be impossible. Can your G-d communicate at
faster than light speeds?

> Atheists are no different than the religious, they, as do the
> religious themselves, simply believe in different things.

False. The absence of a belief is the exact opposite of the
existence of a belief. By your logic, the absence of a tree
is exactly the same thing as the presence of a tree. Methinks
you picked the wrong newsgroup to try to flim-flam. Are you
an EH antenna salesman by any chance? :-)
--
73, Cecil http://www.qsl.net/w5dxp

1128. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 14:39:25 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xKTZe.707$Fi3.275@newssvr29.news.prodigy.net>
Source record: 70124

Reg Edwards wrote:
> Where is the 50-ohm transmission line on which the SWR is imagined or
> supposed to lie?

On my system, there's a 50 ohm cable from the transceiver to
the input of the SWR meter and another 50 ohm cable from the
output of the SWR meter to the balun. Each of these cables
forces the ratio of the voltage to current in each of the
traveling waves to a value of 50 ohms. I have an in-line
Autek WM-1 and no tuner.
--
73, Cecil http://www.qsl.net/w5dxp

1129. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 14:44:10 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <982gj1hr87ahvbl001cpkstuttn754aa6c@4ax.com>
Source record: 70125

On 25 Sep 2005 23:18:18 GMT, bg998@FreeNet.Carleton.CA (Martin Potter)
wrote:

>
>Tom Ring (news0002@taring.org) writes:
>>
>> I would say say, please keep it up, on or off topic. Thanks so much for
>> these pieces of history.
>>
>
>
>Hear, hear!!
>
>... Martin VE3OAT
>ex-CSE (CANUKUS Eyes Only)

Hey Martin, I know what that all means

Jon W3JT, Retired NSA
>

1130. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 14:44:55 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <3k1gj1doq7j8r8s4289jfnnk3k6b6dshg8@4ax.com>
Source record: 70027
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sun, 25 Sep 2005 22:35:44 -0500, Matt Osborn <> wrote:

>You have made no case for atheism. All you have done is list a series
>of things in which do not believe. You have not listed what you do
>believe or in what you have placed your faith.
>
>Atheism is a logically faulty concept. Being human, you cannot
>possibly know everything. What you may think of the unknown is
>entirely up to you, but whatever that may be, will require just as
>much faith as any other religion. Your religion simply has different
>trappings.

There are some atheists who say that there is no god, and there are others who say that the existence of any god can neither be proven nor disproved. Either way, those asserting a belief in a god have the burden of proof. It's not up to atheists to prove that a god does not exist. Of course, you are correct when you say that humans cannot possibly know everything, but to accept a concept such as "god" is applying faith without any critical thinking or reason. This is blind faith.

1131. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 15:06:09 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <oc2gj110akku6lupod05uui7b6i35rat3r@4ax.com>
Source record: 70029
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 26 Sep 2005 05:27:54 -0500, Matt Osborn <> wrote:

>You do have blind faith in something unless you've already discovered
>everything. None of us can say anything of the unknown with
>certainty, yet we all have the faith to tackle the unknown head on and
>to carve from it useful knowledge.

Of course, if you paint with that broad of a stroke, faith can mean
just about anything you want it to mean. To say that atheists have
"faith" in their beliefs or that such beliefs are actually a religion
is flawed. I can assure you that if some winged being flew down out of
the sun and ended all disease, suffering, and hunger, and brought
peace to the world, and if every person in the world called this being
"god" in their own native tongue, I guarantee even the most hardcore
atheist would have faith in that god.

>BTW, despite the allegations, there is no conflict between science and
>religion. The religious use science just as much as the rest of us.

No, the conflict is about religionists trying to pass their beliefs
off as science.

>>What difference does this make? I don't know how the Universe began and
>>quite possibly no one will ever know exactly, but does that mean we can
>>simply pull the "answers" out of our asses? I am not playing the god of
>>the gaps game either. That's just stupid.
>
>If you don't know everything, than you have to have faith that you can
>operate and archive something in the face of the unknown. How you
>perceive that faith is up to you, but it is there.

...and the brush strokes become even broader.

1132. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 15:11:12 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <pk3gj191pqj7hkderbti525toradsn1bpn@4ax.com>
Source record: 70030
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 26 Sep 2005 03:13:56 GMT, kashe@sonic.net wrote:

>>>>>It's bad enough that people feel a need to believe in any deities at
>>>>>all, but when you have to listen to a bunch of old men in robes half a
>>>>>world away tell you how to live your life, you're pretty screwed up.
>>>>>
>>>>> Is this a slam against our Muslim brethren? A comment on the
>>>>>position of Saudi Arabian women?
>>>>
>>>>Pope worshipers and Mohamahdists are all the same to me...
>>>
>>> That says more about you than about them.
>>
>>Such as?
>
> If you have to ask ....

Ambiguity will get you nowhere.

1133. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 15:16:51 UTC
From: k <spam@uce.gov>
Message-ID: <DhUZe.957$mg.278@tornado.socal.rr.com>
Source record: 70028

So, what does it mean, or would you have to kill me if you told me? <G>

Jer

"J. Teske" <jdteske@comcast.net> wrote in message
news:982gj1hr87ahvbl001cpkstuttn754aa6c@4ax.com...
: On 25 Sep 2005 23:18:18 GMT, bg998@FreeNet.Carleton.CA (Martin Potter)
: wrote:
:
: >
: >Tom Ring (news0002@taring.org) writes:
: >>
: >> I would say say, please keep it up, on or off topic. Thanks so
much for
: >> these pieces of history.
: >>
: >
: >
: >Hear, hear!!
: >
: >... Martin VE3OAT
: >ex-CSE (CANUKUS Eyes Only)
:
: Hey Martin, I know what that all means
:
: Jon W3JT, Retired NSA
: >
:

1134. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 15:27:41 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dh941d$o9t$1@mail.specsol.com>
Source record: 70031

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> > Errr, no, the meter is telling what it sees at the point of
> measurement.
> >
> ====================================

> But the meter is not seeing an SWR because an SWR does not exist.

Nonsense.

> Where is the 50-ohm transmission line on which the SWR is imagined or
> supposed to lie?

In my personal case, there is 50 Ohm transmission line between the
transceiver and the SWR meter, then a length of line to a coax switch,
then several lines out to antennas.

You seem fixated on haveing some magical length of transmission line
being necessary for a SWR to exist. This is nonsense.

> As you are unable to answer that question, the remainder of your
> argument (which, as I say, arises because of the SWR meter misleading
> misnomer) falls flat on its face.

> You are an intelligent person. I don't doubt you have no problems
> with understanding what the so-called SWR meter really indicates. But
> you didn't learn this from observations of the SWR meter - as you
> already know it tells lies!

Babble.

A SWR meter indicates what is. Knowing what the reading really means
is a matter of education, not veracity.

> Just to reiterate, the so-called SWR meter indicates only whether or
> not the load on the transmitter is a resistive 50 ohms. If it is not
> 50 ohms it will not tell you what it actually is. Not that you need to
> know what it actually is because you will readjust your tuner, without
> thinking about it, to make it equal to 50 ohms. Which corresponds to
> no deflection of the meter needle.

With some education and multiple measurements, you can caluclate
the actual impedance if one desires.

What tuner? What makes you believe everyone has a tuner?

> The TLI is a very useful and valuable device. It does not lead
> novices and old-wives (who ought to know better) into false ideas, or

> cause confusion and misunderstandings within the amateur fraternity.
> Professionals dismiss SWR for what it is worth anyway.

The only one I see confused is you and professionals use SWR all the
time and in many systems it is extremely important.

> Goodby to SWR except on lines where it matters and where it can be
> measured. Which, in practice, are very few.

If one knows what they are doing, SWR can always be measured.

> ---
> Reg, G4FGQ.

--
Jim Pennino

Remove .spam.sux to reply.

1135. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 16:20:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh973u$g0t$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70032

Jim wrote,

> If one knows what they are doing, SWR can always be measured.
>
==========

NOT on a line which isn't there. QED.

Reg.

1136. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 16:34:26 UTC
From: rob <robocog2003@yahoo.co.uk>
Message-ID: <mqVZe.973$TL4.589@newsfe4-win.ntli.net>
Source record: 70033

N7ZZT - Eric Oyen wrote:
> wizard12342002@yahoo.com wrote:
>
>
>>Suppose I have an antenna some distance from the house. I run the
>>transmission line down from the antenna, bury the line, run it
>>underground to the house, place a lightning arrestor and ground just
>>outside the house, then run the transmission line up the side of the
>>house to the operating position on the second floor. Does anyone see a
>>problem with this arrangement? I can't imagine that a lightning would
>>"want" to travel back up toward the operating position when it has a
>>good ground (at the arrestor) closer to the antenna.
>>
>>-JJ
>
> you would be better to place a lightning arrestor at the tower (and ground
> the tower as well) and perhaps 1 or 2 along the coax to your house (all
> ground rodded). This method is referred to as "defense in depth"

.
Wouldn't this encourage lightning to go through your tower? (with the
risk of the concrete holding the tower up being cracked/ or worse)
I would think that putting earths a safe distance away from the tower's
support would be better ? (BTW I am not an expert!)
Not sure how they protect HT Pylons here in the UK - or even that they
are protected?

Rob

1137. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 17:00:12 UTC
From: Dave <noone@nowhere.com>
Message-ID: <I56dnbxDPJuDtKXeRVn-1g@crocker.com>
Source record: 70034

"rob" <robocog2003@yahoo.co.uk> wrote in message
news:mqVZe.973$TL4.589@newsfe4-win.ntli.net...
> N7ZZT - Eric Oyen wrote:
>> wizard12342002@yahoo.com wrote:
>>
>>
>>>Suppose I have an antenna some distance from the house. I run the
>>>transmission line down from the antenna, bury the line, run it
>>>underground to the house, place a lightning arrestor and ground just
>>>outside the house, then run the transmission line up the side of the
>>>house to the operating position on the second floor. Does anyone see a
>>>problem with this arrangement? I can't imagine that a lightning would
>>>"want" to travel back up toward the operating position when it has a
>>>good ground (at the arrestor) closer to the antenna.
>>>
>>>-JJ
>>
>> you would be better to place a lightning arrestor at the tower (and
>> ground
>> the tower as well) and perhaps 1 or 2 along the coax to your house (all
>> ground rodded). This method is referred to as "defense in depth"
>
> .
> Wouldn't this encourage lightning to go through your tower? (with the risk
> of the concrete holding the tower up being cracked/ or worse)
> I would think that putting earths a safe distance away from the tower's
> support would be better ? (BTW I am not an expert!)
> Not sure how they protect HT Pylons here in the UK - or even that they are
> protected?
>
> Rob
>
no, the current is going to want to get down to the tower base anyway. and
code requires the base of the tower be grounded. properly grounding the
base of the tower should prevent cracking of the base (if that is even
possible) by spreading the current out around it.

1138. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 17:11:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lbagj154mkd3on84upg145o7vpbignueng@4ax.com>
Source record: 70035

On Mon, 26 Sep 2005 08:50:47 -0400, Ham op <hamop@comcast.net> wrote:

>> They are in power now. They hold the House, the Senate, and the
>> White House. They quite simply ARE responsible by default.
>>
>In you view the national government, GW Bush, is 100% responsible if a
>city fence falls into your backyard. It doesn't work that way.

Hi Phil,

What a nervous twitch. Eager to pin it to 100% as more easily
defended? Zen politics.

Reading across the republican spectrum reveals that they are
struggling with his performance far more than the left - and no doubt
given this is the first left-wing fascist administration they've ever
backed.

It won't be many years before the republicans blame Clinton for GW.
You see, that is what works for tying 100% responsibility (or 68%,
minimum passing).

73's
Richard Clark, KB7QHC

1139. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 17:32:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i0bgj1pe1o0r5sj4cocokc2tpfukalsf6v@4ax.com>
Source record: 70036

On Mon, 26 Sep 2005 16:20:14 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Jim wrote,
>> If one knows what they are doing, SWR can always be measured.
>NOT on a line which isn't there. QED.

Hi Reg,

Which only proves Jim is correct, in that you reject the facility to do it with a line. My SWR meters do in fact have a 50 Ohm line transiting from the gozinta to the comesouta. Your poor choice of vendor, or poor solution implemented in design is your own problem, not that of the world's.

I see that you still enjoy its mutilated discussion to the obvious neglect of magnetrons. Much better than flogging Kelvinator, I suppose.

Now there's an image, you going nose to nose with him. He'd send you back to lower 6th for missing the bloody obvious.

73's
Richard Clark, KB7QHC

1140. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 17:32:15 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dh9bnjpjg1@news.service.uci.edu>
Source record: 70037

Reg Edwards wrote:
> Jim wrote,
>
>
>>If one knows what they are doing, SWR can always be measured.
>>
>
> ==========
>
> NOT on a line which isn't there. QED.
> ---
> Reg.

Perhaps this is a dumb question Reg, but if the transmission line isn't there, how does RF get from the transmitter to the antenna?

Thanks, ac6xg

1141. Free space pathloss calcs and factor K

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 17:59:32 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <5hpl03-3ps.ln1@p400bob.personal.cox.net>
Source record: 70038

Hi all.

No doubt I could get this reading lots and lots of text books. It might however be interesting to air a discussion on it..

Have been reading the free space pathloss formula from the ARRL antenna handbook;

Loss in dB = K + 20logf + 20logD

Where f is the freq in GHz and D is the distance in miles

K is a constant of around 96.6dB

I have known about a "fixed K" loss in an antenna system for ages. It even made mention I think in this NG recently when talking about a passive repeater system. From my own exposure to path modelling (EDX/Pathloss etc) I noted a very high dB loss per distance rate in the first (say) 100 wavelengths when looking at graphs of same. (I wasnt doing the actual job, just providing data to the engineer to compare measured with predicted. Fascinating stuff!)

What I wonder is where roughly does the 96dB odd "come from". More interestingly can it be reduced by any appreciable amount. Is it maybe a antenna to "air" coupling loss, maybe even that a RX antenna cant possibly extract all of the energy from the wave as it goes past. I would appreciate any input on this.

My initial forays (as a young ham) into LOS paths went through the isotropic/point source radiators and looking at the surface area of the covered "sphere" containing all of the radiated power idea. Then the RX antenna "aperture" area was used to calculate the actual received power. Needless to say it never met the actual measured values!

Cheers Bob VK2YQA (in W5)

1142. Re: Free space pathloss calcs and factor K

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 18:06:35 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <LMWZe.28929$6p.22663@newsfe4-gui.ntli.net>
Source record: 70039

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:5hpl03-3ps.ln1@p400bob.personal.cox.net...
> Hi all.
>
> No doubt I could get this reading lots and lots of text books. It
might
> however be interesting to air a discussion on it..
>
> Have been reading the free space pathloss formula from the ARRL
antenna
> handbook;
>
> Loss in dB = K + 20logf + 20logD
>
> Where f is the freq in GHz and D is the distance in miles
>
> K is a constant of around 96.6dB
>
> I have known about a "fixed K" loss in an antenna system for ages.
It
> even made mention I think in this NG recently when talking about a
> passive repeater system. From my own exposure to path modelling
> (EDX/Pathloss etc) I noted a very high dB loss per distance rate in
the
> first (say) 100 wavelengths when looking at graphs of same. (I wasnt
> doing the actual job, just providing data to the engineer to compare
> measured with predicted. Fascinating stuff!)
>
> What I wonder is where roughly does the 96dB odd "come from". More
> interestingly can it be reduced by any appreciable amount. Is it
maybe a
> antenna to "air" coupling loss, maybe even that a RX antenna cant
> possibly extract all of the energy from the wave as it goes past. I
> would appreciate any input on this.
>
> My initial forays (as a young ham) into LOS paths went through the
> isotropic/point source radiators and looking at the surface area of
the
> covered "sphere" containing all of the radiated power idea. Then the
RX
> antenna "aperture" area was used to calculate the actual received
power.
> Needless to say it never met the actual measured values!
>

> Cheers Bob VK2YQA (in W5)

For interest the K is 36 if the frequency is in MHz and the distance in miles, or 32.5 if the distance is in Km.

Used it for years and it's never far out.

--
Woody

harrogate2 at ntlworld dot com

1143. Re: The Tower still standing ????

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 18:07:27 UTC
From: JD <jdac@NOSPAMsympatico.ca>
Message-ID: <CLWZe.748$I03.157134@news20.bellglobal.com>
Source record: 70041

The tower looks great Charlie. Hope to have one similar going myself soon.
John
VE3DIX

"Charlie" <charlie@play.com> wrote in message
news:11jbv2j4qkqg138@news.supernews.com...
Dunno Joey..lemme go outside and see.

Yup still standing..as if you really cared except to revel if it were to
come down.....

--

Charlie

"joey" <joey_sutton@js.com> wrote in message
news:4335D3C9.5722F5A4@js.com...
> http://deepsouthnet.net/tower.html
>
> Wonder if this tower is still standing,
> with guy cables anchored to oak trees
> and one telephone pole ??
>

1144. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 18:12:55 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jgehdqm5rr1c1@corp.supernews.com>
Source record: 70040

Reg Edwards wrote:
>>Errr, no, the meter is telling what it sees at the point of
>
> measurement.
>
> ====================================
>
> But the meter is not seeing an SWR because an SWR does not exist.
>
> Where is the 50-ohm transmission line on which the SWR is imagined or
> supposed to lie?
>

Why do you keep insisting that SWR can only exhist on a 50-ohm
transmission line. There are a multitude of impedances in transmission
lines that are other than 50-ohms. SWR is present on every and any
transmission line that doesn't match the transmission element perfectly.

Dave WD9BDZ
> As you are unable to answer that question, the remainder of your
> argument (which, as I say, arises because of the SWR meter misleading
> misnomer) falls flat on its face.
>
> You are an intelligent person. I don't doubt you have no problems
> with understanding what the so-called SWR meter really indicates. But
> you didn't learn this from observations of the SWR meter - as you
> already know it tells lies!
>
> Just to reiterate, the so-called SWR meter indicates only whether or
> not the load on the transmitter is a resistive 50 ohms. If it is not
> 50 ohms it will not tell you what it actually is. Not that you need to
> know what it actually is because you will readjust your tuner, without
> thinking about it, to make it equal to 50 ohms. Which corresponds to
> no deflection of the meter needle.
>
> The TLI is a very useful and valuable device. It does not lead
> novices and old-wives (who ought to know better) into false ideas, or
> cause confusion and misunderstandings within the amateur fraternity.
> Professionals dismiss SWR for what it is worth anyway.
>
> Goodby to SWR except on lines where it matters and where it can be
> measured. Which, in practice, are very few.
> ---
> Reg, G4FGQ.
>

>

1145. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 18:22:06 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jgf2k423re00@corp.supernews.com>
Source record: 70042

jimp@specsol.spam.sux.com wrote:

> Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
>
>>>Errr, no, the meter is telling what it sees at the point of
>>
>>measurement.
>>
>>====================================
>
>
>>But the meter is not seeing an SWR because an SWR does not exist.
>
>
> Nonsense.
>
>
>>Where is the 50-ohm transmission line on which the SWR is imagined or
>>supposed to lie?
>
>
> In my personal case, there is 50 Ohm transmission line between the
> transceiver and the SWR meter, then a length of line to a coax switch,
> then several lines out to antennas.
>
> You seem fixated on haveing some magical length of transmission line
> being necessary for a SWR to exist. This is nonsense.
>
>
>>As you are unable to answer that question, the remainder of your
>>argument (which, as I say, arises because of the SWR meter misleading
>>misnomer) falls flat on its face.
>
>
>>You are an intelligent person. I don't doubt you have no problems
>>with understanding what the so-called SWR meter really indicates. But
>>you didn't learn this from observations of the SWR meter - as you
>>already know it tells lies!
>
>
> Babble.
>
> A SWR meter indicates what is. Knowing what the reading really means
> is a matter of education, not veracity.

>
>
>>Just to reiterate, the so-called SWR meter indicates only whether or
>>not the load on the transmitter is a resistive 50 ohms. If it is not
>>50 ohms it will not tell you what it actually is. Not that you need to
>>know what it actually is because you will readjust your tuner, without
>>thinking about it, to make it equal to 50 ohms. Which corresponds to
>>no deflection of the meter needle.
>
>
> With some education and multiple measurements, you can caluclate
> the actual impedance if one desires.
>
> What tuner? What makes you believe everyone has a tuner?
>

Actually no one has a tuner. To tune an antenna you must make physical adjustments to the length, location, size, etc. to the antenna. What one has is an impedance matching network. Modern transmitters are set to expect a characteristic impedance of 50-ohms. If the transmission line and antenna system is not 50-ohms you must insert various values of capacitance and inductance so as to make the transmitter think it is looking at 50-ohms. Older, read tube, transmitters, read finals, generally have adjustable inductance and capacitance elements between the output plate/s and the transmission line. Adjusting these does the same thing as using an external transmatch.

If we are going to be picky lets be accurate. Now, having said this if I happen to be wrong on any specific element I welcome correction not scorn.
Dave WD9BDZ

>
>>The TLI is a very useful and valuable device. It does not lead
>>novices and old-wives (who ought to know better) into false ideas, or
>>cause confusion and misunderstandings within the amateur fraternity.
>>Professionals dismiss SWR for what it is worth anyway.
>
>
> The only one I see confused is you and professionals use SWR all the
> time and in many systems it is extremely important.
>
>
>>Goodby to SWR except on lines where it matters and where it can be
>>measured. Which, in practice, are very few.
>
>
> If one knows what they are doing, SWR can always be measured.
>
>
>>---
>>Reg, G4FGQ.

>
>
>
>

1146. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 18:24:06 UTC
From: dplatt@radagast.org
Message-ID: <11jgf66o5ba6i4d@corp.supernews.com>
Source record: 70043

In article <dh973u$g0t$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>,
Reg Edwards <g4fgq,regp@ZZZbtinternet,com> wrote:

>> If one knows what they are doing, SWR can always be measured.

>NOT on a line which isn't there. QED.

In the strong sense of the definition ("A VSWR meter is a meter which measures, literally, the ratio between the voltage maxima and minima present on a transmission line"), Reg is correct. This can be done with a section of slotted line and a probe, of course, tapped into a section of a transmission line having the same characteristic impedance.

That's not how a typical amateur "SWR" meter works, though - it's not either locating or measuring either the maxima or the minima of either voltage or current on the line. So, the strong, literal, pedantic sense of the term, I agree with Reg that a standard "SWR" meter is not truly measuring SWR, and that he's correct in his objection.

However, I also think he's overstating the case.

An "SWR" meter circuit, in the usual sense (e.g. a Monimatch or similar) can provide an accurate *indirect* measurement of SWR, *if* the conditions under which it is used are appropriate. It measures the currents and voltages flowing through it, and derives (electrically and mathematically) a number which correlates extremely well to what a true SWR measurement on a T-line of specified impedance would say. If you build and calibrate this sort of circuit accurately enough, and then put it in the middle of a section of 50-ohm line (or whatever it's calibrated for), it'll give the same numbers as a true, direct measurement of VSWR on a length of T-line at that point.

Now, it's true (as Reg says) that a Monimatch or similar indirect-measurement meter can give you inaccurate or misleading numbers, if used in an environment other than what it's designed for. If you stick a Monimatch at the output of a transmitter or transmatch, with its output looking into a high-impedance balanced line, then the numbers it displays won't equal the actual VSWR on the line. You might be able to come up with a correction factor / curve for it, though. If you stick it right at the transmitter output, and it reads 1.0:1, then you can be confident that your transmitter is seeing the load that it wants to see... hence Reg's desire to have it renamed as a "TLI".

Seems to me, though, that the same is true of a real "VSWR" measurement system (e.g. a slotted line) if you use it under

inappropriate test conditions. If you take a slotted-line-and-probe measurement device whose internal line is 50 ohms, and stick it in the middle of a 75-ohm line, and measure the VSWR on your slotted line, you'll come up with a number which *does* equal the VSWR in the slotted line but does *not* equal the VSWR on the actual transmission line. Same problem, really.

In that sense, even a "real" VSWR meter isn't a "useful" VSWR meter, if you use it inappropriately.

All that being said: I conclude that there's nothing wrong with calling a Monimatch (or similar) current/voltage measurement circuit a "SWR" meter, as it *will* display correct and accurate numbers for the SWR on the line when used appropriately (within the limits of its calibration, of course). It's up to the user to understand the conditions under which this sort of measurement can be made accurately and usefully... just as it is with every other sort of test instrument I know of.

Reg, I think you're tilting at windmills.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

1147. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 18:24:58 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jgf7vp410sc82@corp.supernews.com>
Source record: 70044

Jim Kelley wrote:

>
>
> Reg Edwards wrote:
>
>> Jim wrote,
>>
>>
>>> If one knows what they are doing, SWR can always be measured.
>>>
>>
>> ==========
>>
>> NOT on a line which isn't there. QED.
>> ---
>> Reg.
>
>
> Perhaps this is a dumb question Reg, but if the transmission line isn't
> there, how does RF get from the transmitter to the antenna?
>
> Thanks, ac6xg
>
>
>
Well there's wave guide, there's printed circuit traces, there's wire.
OPPS.... those are transmission lines.

Dave WD9BDZ

1148. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 18:51:06 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dh9gchrru1@news.service.uci.edu>
Source record: 70045

Reg Edwards wrote:

> The symbol of Christianity is an instrument of torture.
>
> It's amazing it has so many adherents.

Especially when they could have just as easily chosen a lion devouring a man as their symbol. Blaming crucifixion on Christians is a little like blaming Jews for the Holocaust. It neglects a lot of relevant history, don't you think?

I don't believe there are bad religions as much as there are bad practitioners. Even my 7 year old could understand the moral of the Hunchback of Notre Dame, Reg.

ac6xg

1149. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 19:37:26 UTC
From: Kenneth Grimm <kgrimm@adelphia.net>
Message-ID: <luggj15rie7r3j7kc723ot27sfculqrmp3@4ax.com>
Source record: 70046

On Sun, 25 Sep 2005 10:46:48 -0400, Walter Maxwell <walt@w2du.com>
wrote:

> I'm pleased that the history of radio in WW2 is acceptable on this news
>group. The three threads I've posted so far are from memory, and at the moment
>that's about all there is.
> However, I have files describing many real intelligence transmissions
>involving historic situations that for the most part went unheralded. These
>files are in my library at my home in DeLand, Florida. I'm now at my summer home
>in my home town of Mt. Pleasant, Michigan, but we return to FL Nov 1. I'll dig
>out some of the files when we return.
> Thanks again for the interest. When I posted the first one I thought I might
>be voted off the island.
>
>Walt, W2DU

Hello Walt,

I would like to add my voice to the chorus of those who would like to
read more of your reminiscences.

By the way, Prose Walker's last call was W4BW. There is an obituary
at http://www.arrl.org/news/stories/2002/09/26/4/?nc=1
He was a very interesting fellow and a great friend to our hobby.

73,
Ken K4XL

Ken K4XL
k4xl@arrl.net

*** BoatAnchor Manual Archive ***
On the web at http://bama.sbc.edu and http://bama.edebris.com
FTP site info: bama.sbc.edu login: anonymous p/w: youremailadr

1150. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 19:44:15 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <kcYZe.14460$iM2.1194399@news.xtra.co.nz>
Source record: 70047
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:d9WdnUJVw9wkxKreRVn-sA@adelphia.com...
> Michael A. Terrell wrote:
>> Mike Coslo wrote:
>>
>>> I'm badly in need of a Foghorn Leghorn fix! 8^)
>>>
>>> trying to kill this thread with inanity......
>>>
>>> But I am serious about needing the old WB cartoons 8^)
>>>
>>> - Mike -
>>
>>
>>
>> I find some of the old cartoons on DVDs at the local dollar store.
>> I've bought about 20, so far. ;-)
>>
>
> Heh! I'm beginning to think I need to get out more, Mike! 8^)
>
> - mike -

Me too - where's that store? :-)

Ken

1151. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 19:49:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh9jbakof1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70048

```
>
> Perhaps this is a dumb question Reg, but if the transmission line
isn't
> there, how does RF get from the transmitter to the antenna?
>
> Thanks, ac6xg
>
============================
```

The 50-ohm line on which the SWR is supposed to be measured is between the transmitter and the so-called SWR meter.

If the transmitter is connected directly to the meter, (as it usually is, very often it is inside the transmitter on the front panel) there is no line and no SWR on it which can be measured.

Neverthess, the meter still provides a reading of SWR. Obviously it is telling lies and causes confusion and misunderstanding to novices about what is really happening within their equipment. In fact, just as it has been doing since Joker, Richard Clark, entered the thread.

Some people force themselves to imagine a 1/4-wavelength transmission inside the little box in a vain endeavor to explain how an SWR meter works.

Actually the meter indicates whether or not the transmitter is loaded with 50-ohms - and nothing else. It is an HF resistance bridge to which its circuit reduces.

But, as I say, it is a very useful, almost indispensible instrument. It is a TLI.

```
----
```

Reg.

1152. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 20:07:49 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dh9kthjt1@news.service.uci.edu>
Source record: 70051

Reg Edwards wrote:

>>Perhaps this is a dumb question Reg, but if the transmission line
>
> isn't
>
>>there, how does RF get from the transmitter to the antenna?
>>
>>Thanks, ac6xg
>>
>
> ============================
>
> The 50-ohm line on which the SWR is supposed to be measured is between
> the transmitter and the so-called SWR meter.
>
> If the transmitter is connected directly to the meter, (as it usually
> is, very often it is inside the transmitter on the front panel) there
> is no line and no SWR on it which can be measured.

What you're saying is that there's a line connecting the transmitter to the meter, but there isn't a line connecting the transmitter to the meter. I'd have difficulty defending such a position.

> Neverthess, the meter still provides a reading of SWR. Obviously it
> is telling lies and causes confusion and misunderstanding to novices
> about what is really happening within their equipment. In fact, just
> as it has been doing since Joker, Richard Clark, entered the thread.
>
> Some people force themselves to imagine a 1/4-wavelength transmission
> inside the little box in a vain endeavor to explain how an SWR meter
> works.
>
> Actually the meter indicates whether or not the transmitter is loaded
> with 50-ohms - and nothing else.

I don't think the meter really knows what impedance the transmitter is loaded with. As far as I can tell, it only knows how many volts and amps gozinta one port and/or compared with how many volts and amps gozinta the other port.

But I agree that some people read an awful lot into the measurements they make with one of these devices.

> It is an HF resistance bridge to
> which its circuit reduces.

True enough.

> But, as I say, it is a very useful, almost indispensible instrument.
> It is a TLI.

I like to think of it more as a reflectometer.

73 de ac6xg

1153. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 20:08:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v5lgj11c3ljo2ut4gaoqbtk3jlj6jdbkj2@4ax.com>
Source record: 70049

On Mon, 26 Sep 2005 19:49:00 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

> In fact, just
>as it has been doing since Joker, Richard Clark, entered the thread.

Aw Reggie,

You are getting emotional because you were caught spitting on
Kelvinator and telling us it was the London fog.

73's
Richard Clark, KB7QHC

1154. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 20:09:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dh9khm$o1l$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70050

I have not insisted, not even mentioned, that SWR can exist only on
50-ohm lines.

All I have said, somewhere, is that the usual SWR meter gives the
correct answers only on 50-ohm lines.

Reg.

1155. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 20:23:07 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <bu1m03-sm7.ln1@fimbul.myth>
Source record: 70054

On Sat, 24 Sep 2005 21:07:20 +0200,
Song for Debbie H <markovREMOVETHIS@tele2.be> wrote:
> In article <11j8iv9ofrglt2a@corp.supernews.com>,
> "Rod Maupin" <gridman@ywave.com> wrote:
>
>> I don't know, but I would like to know. I am a software developer and am
>> interested in fractals.
>>
>> Rod KI7CQ
>>
>>
>
> Have you programmed IFS by Michael Barnsley ???
>
> Look at is as a ... markov chain ..
> solve the equation with the multigrid method.
>
> Then you have a Pï¿½HD, like mine, but 1ï¿½ years later ;-)
>
>
>
> Well, I would like to have a program that makes IFSs
> on unix/linux/apple to make X x Y images
> X, Y > 2000
>
>
> I have one on macos 6. ;-)
>

Fractint might fit the bill.
<http://spanky.triumf.ca/www/fractint/fractint.html>

--
Jim Richardson http://www.eskimo.com/~warlock
Just because I'm moody doesn't mean you're not irritating

1156. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 20:31:45 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dh9lrhjbm1@mail.specsol.com>
Source record: 70052

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:

> >
> > Perhaps this is a dumb question Reg, but if the transmission line
> isn't
> > there, how does RF get from the transmitter to the antenna?
> >
> > Thanks, ac6xg
> >
> ============================

> The 50-ohm line on which the SWR is supposed to be measured is between
> the transmitter and the so-called SWR meter.

No, the SWR being measured is on the load side of the meter.

> If the transmitter is connected directly to the meter, (as it usually
> is, very often it is inside the transmitter on the front panel) there
> is no line and no SWR on it which can be measured.

Bzzzt, wrong answer. SWR is measured on the output side of the meter,
not the input.

> Neverthess, the meter still provides a reading of SWR. Obviously it
> is telling lies and causes confusion and misunderstanding to novices
> about what is really happening within their equipment. In fact, just
> as it has been doing since Joker, Richard Clark, entered the thread.

> Some people force themselves to imagine a 1/4-wavelength transmission
> inside the little box in a vain endeavor to explain how an SWR meter
> works.

That would be inane.

All one need do is realize the meter measures toward the load.

> Actually the meter indicates whether or not the transmitter is loaded
> with 50-ohms - and nothing else. It is an HF resistance bridge to
> which its circuit reduces.

> But, as I say, it is a very useful, almost indispensible instrument.
> It is a TLI.
> ----
> Reg.

--
Jim Pennino

Remove .spam.sux to reply.

1157. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 20:38:01 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dh9m79jbm2@mail.specsol.com>
Source record: 70053

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> I have not insisted, not even mentioned, that SWR can exist only on
> 50-ohm lines.

> All I have said, somewhere, is that the usual SWR meter gives the
> correct answers only on 50-ohm lines.
> ----
> Reg.

If I connect a 100 Ohm antenna through a 100 Ohm transmission line to
a SWR meter designed for 50 Ohms and then to a transmitter which expects
a 50 Ohm load, does the meter read correctly with respect to the desired
transmitter loading?

Of course it does.

--
Jim Pennino

Remove .spam.sux to reply.

1158. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 21:21:53 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <isogj1l6ioc48tujbmuc3mb2me70cb8cqo@4ax.com>
Source record: 70055

On Mon, 26 Sep 2005 20:38:01 +0000 (UTC), jimp@specsol.spam.sux.com
wrote:

>Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
>> I have not insisted, not even mentioned, that SWR can exist only on
>> 50-ohm lines.
>
>> All I have said, somewhere, is that the usual SWR meter gives the
>> correct answers only on 50-ohm lines.
>> ----
>> Reg.
>
>If I connect a 100 Ohm antenna through a 100 Ohm transmission line to
>a SWR meter designed for 50 Ohms and then to a transmitter which expects
>a 50 Ohm load, does the meter read correctly with respect to the desired
>transmitter loading?
>
>Of course it does.

Jim, that seems inconsistent with your earlier statemetn "No, the SWR
being measured is on the load side of the meter."

In the example you quoted with a 100 ohm load on a 100 ohm line, were
the line loss low, and the line long enough to be sure to sample a
fully developed voltage maximum and voltage minimum it would be found
that the VSWR was 1:1.

Yet we would expect the "SWR meter designed for 50 Ohms" to which it
is connected (on the load side) to read VSWR=2:1, so is it measuring
the SWR on the load side of the meter as you earlier stated?

Perhaps typical SWR meters are actually sampling current and voltage
on a very short section (almost a point sample) of transmission line
that is part of the instrument, and they are indicating what the
observed SWR would be on an extended line of that type, provided that
attenuation was insignificant, and that the extended line was
sufficiently long to allow full development of the standing wave
pattern.

The inference of what is happening on adjacent line is ours, not the
instruments, as demonstrated by your example above.

Owen
--

1159. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 21:39:27 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dh9pqf$38n$1@mail.specsol.com>
Source record: 70056

Owen Duffy <owen@no.where> wrote:
> On Mon, 26 Sep 2005 20:38:01 +0000 (UTC), jimp@specsol.spam.sux.com
> wrote:

> >Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> >> I have not insisted, not even mentioned, that SWR can exist only on
> >> 50-ohm lines.
> >>
> >> All I have said, somewhere, is that the usual SWR meter gives the
> >> correct answers only on 50-ohm lines.
> >> ----
> >> Reg.
> >>
> >>If I connect a 100 Ohm antenna through a 100 Ohm transmission line to
> >>a SWR meter designed for 50 Ohms and then to a transmitter which expects
> >>a 50 Ohm load, does the meter read correctly with respect to the desired
> >>transmitter loading?
> >>
> >>Of course it does.

> Jim, that seems inconsistent with your earlier statemetn "No, the SWR
> being measured is on the load side of the meter."

The load side is the side with the load, i.e. the antenna, on it.

> In the example you quoted with a 100 ohm load on a 100 ohm line, were
> the line loss low, and the line long enough to be sure to sample a
> fully developed voltage maximum and voltage minimum it would be found
> that the VSWR was 1:1.

Not for a 50 Ohm system, i.e. a transmitter expecting 50 Ohms and a
meter calibrated for a 50 Ohm system.

> Yet we would expect the "SWR meter designed for 50 Ohms" to which it
> is connected (on the load side) to read VSWR=2:1, so is it measuring
> the SWR on the load side of the meter as you earlier stated?

Yep.

> Perhaps typical SWR meters are actually sampling current and voltage
> on a very short section (almost a point sample) of transmission line
> that is part of the instrument, and they are indicating what the
> observed SWR would be on an extended line of that type, provided that
> attenuation was insignificant, and that the extended line was
> sufficiently long to allow full development of the standing wave
> pattern.

The SWR that most people care about is that of the antenna.

Usually you have a 50 Ohm transmitter connected to 50 Ohm line, and
then to an antenna you hope is 50 Ohms.

To accurately measure the antenna SWR without any error being introduced
by line losses, you have to put the SWR meter at the end of the line
adjacent to the antenna.

This is usually impractical and we normally put the SWR meter near the
transmitter.

In this case the meter measures the SWR of the entire system, i.e. the
line going from the meter to the antenna and the antenna.

The net practical effect of the line loss for real line and real antennas
is that the observed SWR will indicate a lower value than if the meter
were directly connected to the antenna.

> The inference of what is happening on adjacent line is ours, not the
> instruments, as demonstrated by your example above.

> Owen
> --

--
Jim Pennino

Remove .spam.sux to reply.

1160. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 21:53:13 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ivqgj115m8a0ftod839o0fn8p5eujkeoqn@4ax.com>
Source record: 70057

On Mon, 26 Sep 2005 15:37:26 -0400, Kenneth Grimm <kgrimm@adelphia.net> wrote:

>On Sun, 25 Sep 2005 10:46:48 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>> I'm pleased that the history of radio in WW2 is acceptable on this news
>>group. The three threads I've posted so far are from memory, and at the moment
>>that's about all there is.
>> However, I have files describing many real intelligence transmissions
>>involving historic situations that for the most part went unheralded. These
>>files are in my library at my home in DeLand, Florida. I'm now at my summer home
>>in my home town of Mt. Pleasant, Michigan, but we return to FL Nov 1. I'll dig
>>out some of the files when we return.
>> Thanks again for the interest. When I posted the first one I thought I might
>>be voted off the island.
>>
>>Walt, W2DU
>
>Hello Walt,
>
>I would like to add my voice to the chorus of those who would like to
>read more of your reminiscences.
>
>By the way, Prose Walker's last call was W4BW. There is an obituary
>at http://www.arrl.org/news/stories/2002/09/26/4/?nc=1
>He was a very interesting fellow and a great friend to our hobby.
>
>73,
>Ken K4XL

Thanks for your support, Ken, I appreciate knowing my writing is of interest. However, re Prose's call sign, please refer to my earlier thread, "The Correct Polarization Saves Lives....", and my post beneath the original posting, where I showed his call signs correctly.
Incidentally, Prose was a close friend, having worked together both at the Allegan primary station, and in Honolulu. We traveled to Hawaii together in the first group of FCC personnel that arrived there to set up eight new secondary stations. In addition, I was his best man during the wedding to his second wife, and I was also a member of his advisory committee working on WARC 79.

Walt, W2DU

1161. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 22:03:25 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <uuqgj15n4udcifvlghuh196gf3l3djg55b@4ax.com>
Source record: 70058

On Mon, 26 Sep 2005 21:39:27 +0000 (UTC), jimp@specsol.spam.sux.com
wrote:

>> Jim, that seems inconsistent with your earlier statemetn "No, the SWR
>> being measured is on the load side of the meter."
>
>The load side is the side with the load, i.e. the antenna, on it.
>
>> In the example you quoted with a 100 ohm load on a 100 ohm line, were
>> the line loss low, and the line long enough to be sure to sample a
>> fully developed voltage maximum and voltage minimum it would be found
>> that the VSWR was 1:1.
>
>Not for a 50 Ohm system, i.e. a transmitter expecting 50 Ohms and a
>meter calibrated for a 50 Ohm system.

I am sorry Jim, the VSWR is a property of the transmission line and
its termination, and the VSWR on that 100 ohm line with a 100 ohm
termination is 1:1. The VSWR could be *MEASURED* on that line by
sampling the magnitude of the voltage at different points on the line
and it would be found that the magnitude of the voltage was constant,
which means VSWR=1:1.

>
>> Yet we would expect the "SWR meter designed for 50 Ohms" to which it
>> is connected (on the load side) to read VSWR=2:1, so is it measuring
>> the SWR on the load side of the meter as you earlier stated?
>
>Yep.

No, it isn't.

The SWR meter in your example reads 2:1 when the SWR on the 100 ohm
line is 1:1. Your example demonstrates that a typical SWR meter does
not measure, or necessarily indicate the SWR of the (actual)
transmission line on the load side of itself.

Owen
--

1162. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 22:27:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jB_Ze.554$lc1.0@newssvr21.news.prodigy.com>
Source record: 70059
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> Nothing can be proven using the scientific method.

Hey, let me try that same approach. You do not exist.
--
73, Cecil http://www.qsl.net/w5dxp

1163. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 22:30:50 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <uE_Ze.555$lc1.543@newssvr21.news.prodigy.com>
Source record: 70060
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> Gravity has never been proven.

I know the answer to this one from my hippie days.

There is no gravity! The earth sucks!
--
73, Cecil http://www.qsl.net/w5dxp

1164. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 22:33:35 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <gF_Ze.8208$eB3.4345@bignews3.bellsouth.net>
Source record: 70062

"Tom Ring" <news0002@taring.org> wrote in message
news:4335f2e1$0$22196$39cecf19@news.twtelecom.net...
> Walter Maxwell wrote:
>
>> I'm aware that this post is off-topic, except that it is the basis
>> for my
>> two previous posts that were on topic to antennas. I believe it is time
>> to
>> reexamine the contributions hams and commercial radio ops made to the WW2
>> effort
>> as they were the operating personnel of the FCC's Radio Intelligence
>> Division.
>> This is their story.
>
> I would say say, please keep it up, on or off topic. Thanks so much for
> these pieces of history.
>
> tom
> K0TAR

I would add "dittos" to that. As the "next" generation after WWII I am a
big fan of that period's history. I wish I had been born in 1923 instead of
'48!

To me, info of this sort is much appreciated since I couldn't experience
that era for myself. Reckon that's why I still listen to Glenn Miller? :)

Jerry
>

1165. Re: Free space pathloss calcs and factor K

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 22:35:57 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <cotgj1tk7k627o3eucq631c5vvonv7tmrb@4ax.com>
Source record: 70063

Hi,

>Loss in dB = K + 20logf + 20logD
>
>Where f is the freq in GHz and D is the distance in miles
>
>K is a constant of around 96.6dB

>What I wonder is where roughly does the 96dB odd "come from". More
>interestingly can it be reduced by any appreciable amount. Is it maybe a
>antenna to "air" coupling loss, maybe even that a RX antenna cant
>possibly extract all of the energy from the wave as it goes past. I
>would appreciate any input on this.

Don't know that particular expression but plug in very low
values for 'f' and 'D' and you come up with something like
Loss(dB) = K(dB) -(~100dB) since the log of numbers less than 1 is
negative.

The formula then is simply of the form -

y = 20log(f) + 20log(D) + C

So when 'f' and 'D' are both equal to 1, the path loss = 96dB
and, when much less than that, it approaches zero.

Cheers - Joe

1166. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 22:41:17 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <vM_Ze.8227$eB3.5897@bignews3.bellsouth.net>
Source record: 70064
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Ham op" <hamop@comcast.net> wrote in message
news:88WdnbrHqZgpkbreRVn-tg@comcast.com...
> Jerry wrote:
>
>> "Ham op" <hamop@comcast.net> wrote in message
>> news:0ICdncTJkPKeVrveRVn-vA@comcast.com...
>>
>>>Dee Flint wrote:
>>>
>>>>"Carl / W6VDC" <carl.hixon@cox.net> wrote in message
>>>>news:bnkVe.8821$mH.8469@fed1read07...
>>>>
>>>>
>>>>>> And then, there are the morons and bigots:
>>>>>><http://news.google.com/news?hl=en&ned=us&ie=ISO-8859-1&q=Ocala+Fl+Majestic+Oaks&btn
G=Search+News>
>>>>>
>>>>>I looked at the link and read a couple of the articles. I didn't see
>>>>>anything that warranted labelling them bigots. I don't think that the
>>>>>HOA took the proper position, but that doesn't make them bigots.
>>>>
>>>>
>>>>However it would seem to indicate that they lack humanitarianism.
>>>>
>>>>
>>>
>>>Judgments!!! Would it not be better to read the exact terms of the CC&R,
>>>AKA CONTRACT, before judgments are made??
>>>
>>>The exact wording of the HOA/CC&R may restrict certain activities [such
>>>as external antennas, or temporary housing, etc]. The restriction can
>>>only be waived by consent of the members of the HOA.
>>
>>
>>
>> That's just it! There ain't gonna BE any HOA's ,covenants, or busybody
>> neighbors telling me to do a durned thing unless they got enough rear end
>> on 'em to MAKE me! If today, somebody wanted to start an HOA in my
>> neighborhood, I'd tell them to kiss my (censored).
>>
>> I feel VERY strongly about property rights, and if I want to put up an
>> American flag, then I'll put up an American flag and I dare some

>> schweinhund to come over here and touch it! I DESPISE and detest HOA's!
>> :(
>>
>> Jerry
>
> Gerry, you said it correctly. Tell your agent "I will not consider, under
> any conditions, any HOAs or CC&Rs." If the RE attorney uncovers any
> 'hidden' CC&Rs in the title search, the sale is OFF!
>
> I live in the "Live Free or Die" state [New Hampshire]. When I bought here
> three years ago I made that point to our realtor. We bought a very nice
> single family home of 2100 square feet on a 1/2 acre only 21 years old, 6
> miles south of the state capital and 12 miles north of the third largest
> city.
>
> I checked town zoning requirements for a tower. I'm allowed 70 feet for
> the tower without requesting a variance. Also, if the tower is
> professionally installed I need not consult the town building inspector.
> Heights from 70 feet 1 inch to 200 feet require plan approval by the
> building inspector ONLY for safety issues. BTW: my tower is only 50 feet
> [I live on top of a 510 foot hill with height above average terrain of 250
> feet for 5 miles radius].
>
> But back to the original issue. The HOA may have a strict rule on
> temporary housing. It is a freely entered into contract condition that
> requires the consent of the contracting parties to amend.
>
> So, the term 'BIGOT' is a prejudicial pre judgment.

I've always loved that statement "Live Free or Die". Good for New Hampshire!! I would've done well in New Hampshire!

Like you, I made 2 requirements. 1) No HOA's. and 2) No "heat" pumps!! I know it gets colder in NH, but it CAN get a bit chilly here in Western NC. I won't have cold air coming out of my registers! LOL! And that, of course, is a story for a different thread!

Jerry
>

1167. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 22:46:53 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ihugj1d3h7a317gefthukgvbrh2is1ahhc@4ax.com>
Source record: 70065

On Mon, 26 Sep 2005 18:33:35 -0400, "Jerry" <joxendi@bellsouth.net> wrote:

>
>"Tom Ring" <news0002@taring.org> wrote in message
>news:4335f2e1$0$22196$39cecf19@news.twtelecom.net...
>> Walter Maxwell wrote:
>>
>>> I'm aware that this post is off-topic, except that it is the basis
>>> for my
>>> two previous posts that were on topic to antennas. I believe it is time
>>> to
>>> reexamine the contributions hams and commercial radio ops made to the WW2
>>> effort
>>> as they were the operating personnel of the FCC's Radio Intelligence
>>> Division.
>>> This is their story.
>>
>> I would say say, please keep it up, on or off topic. Thanks so much for
>> these pieces of history.
>>
>> tom
>> K0TAR
>
>I would add "dittos" to that. As the "next" generation after WWII I am a
>big fan of that period's history. I wish I had been born in 1923 instead of
>'48!
>
>To me, info of this sort is much appreciated since I couldn't experience
>that era for myself. Reckon that's why I still listen to Glenn Miller? :)
>
>
>Jerry
>>
Anyone who listens to Glenn Miller is A-OK in my book.

Walt

1168. Re: antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 23:05:37 UTC
From: jgboyles@aol.com
Message-ID: <1127775937.243525.150290@g44g2000cwa.googlegroups.com>
Source record: 70066

slow-z wrote:
> Been off the bands about 15yrs, and want to get back on! have forgotten
> much. Can i feed a long wire antenna with a tuner that only has a
> unbalanced output.

For transmitting purposes you will need to provide a good RF ground
at your tuner. This can be ground radials, good, or a ground rod, not
so good. The ground makes up the other (necessary half) of your long
wire antenna. A 1/4 wave counterpoise wire at the operating frequency
will provide a good? RF ground.
The unbalanced tuner should have the "long wire" connected to the
"hot" or rf output of the tuner, and the ground or common connected to
the RF ground.
Gary N4AST

1169. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-26 23:32:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dha0e3qna1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70067

Jim says,
> No, the SWR being measured is on the load side of the meter.
==========
Jim,

I have difficulty in telling you this without hurting your feelings. Or perhaps you are just joking and pulling my leg. Try the other one - its got bells on.

I will assume you are not joking. You clearly havn't the foggiest idea of how the so-called SWR meter works. Although you may be in good company - including not a few professional engineers who have picked up old-wives' tales from radio amateurs. And have been led astray by the meter being called something which it isn't.

The meter indicates SWR when placed at the ANTENNA end of the line. It is the antenna which does the terminating. And the meter gives the correct answers only when the line Zo = 50 ohms.

If there is a tuner or matching network in the line then the meter will indicate SWR on the line between the transmitter and the tuner - provided the meter is placed next to the tuner.

When there is no appreciable length of line between transmitter and tuner (as is the very common case) there is no line on which to measure SWR. But the meter will indicate an SWR - and tells lies.

But there's nothing to worry about just because the meter is indicating SWR nonsense. The meter is telling you what you really want to know, its exactly why you placed it there - whether or not the transmitter is loaded with 50 ohms.

Reg.

1170. Re: antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 00:16:32 UTC
From: chuck <nospam@nospam.net>
Message-ID: <Ab0_e.4692$QE1.1350@newsread2.news.atl.earthlink.net>
Source record: 70068

Yes, but if the long wire is on the order of a half-wavelength, the
ground becomes a lot less critical.

Chuck, NT3G

jgboyles@aol.com wrote:
> slow-z wrote:
>
>>Been off the bands about 15yrs, and want to get back on! have forgotten
>>much. Can i feed a long wire antenna with a tuner that only has a
>>unbalanced output.
>
>
> For transmitting purposes you will need to provide a good RF ground
> at your tuner. This can be ground radials, good, or a ground rod, not
> so good. The ground makes up the other (necessary half) of your long
> wire antenna. A 1/4 wave counterpoise wire at the operating frequency
> will provide a good? RF ground.
> The unbalanced tuner should have the "long wire" connected to the
> "hot" or rf output of the tuner, and the ground or common connected to
> the RF ground.
> Gary N4AST
>

1171. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 00:24:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dha3gj$h1d$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70069

"Owen Duffy" wrote -
> Your example demonstrates that a typical SWR meter does
> not measure, or necessarily indicate the SWR of the (actual)
> transmission line on the load side of itself.
>

You must have been reading what I've been writing for the last 6 or 7
years.

Reg.

1172. Re: antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 00:29:15 UTC
From: dplatt@radagast.org
Message-ID: <11jh4ir88hv2ff@corp.supernews.com>
Source record: 70070

In article <Ab0_e.4692$QE1.1350@newsread2.news.atl.earthlink.net>,
chuck <nospam@nospam.net> wrote:

>Yes, but if the long wire is on the order of a half-wavelength, the
>ground becomes a lot less critical.

It becomes less critical in terms of the need to provide the "other
half" of the radiator.

However, if the long wire is roughly a half-wavelength long, its
feedpoint impedance is going to be rather high... possibly higher than
you can match with a typical "unbalanced" tuner intended for matching
coax-fed antennas.

And, if you do match it, you'll find a relatively high RF voltage
present on the portion of the wire inside the shack. This can lead to
"RF in the shack" problems, and you may need a really good RF ground
for the tuner and rig just to keep RF voltages on the equipment
chassis from being a problem.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1173. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 00:45:36 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <3dmdnRMzg6RrC6XeRVn-jQ@comcast.com>
Source record: 70071

rob wrote:

> N7ZZT - Eric Oyen wrote:
>
>> wizard12342002@yahoo.com wrote:
>>
>>
>>> Suppose I have an antenna some distance from the house. I run the
>>> transmission line down from the antenna, bury the line, run it
>>> underground to the house, place a lightning arrestor and ground just
>>> outside the house, then run the transmission line up the side of the
>>> house to the operating position on the second floor. Does anyone see a
>>> problem with this arrangement? I can't imagine that a lightning would
>>> "want" to travel back up toward the operating position when it has a
>>> good ground (at the arrestor) closer to the antenna.
>>>
>>> -JJ
>>
>>
>> you would be better to place a lightning arrestor at the tower (and
>> ground
>> the tower as well) and perhaps 1 or 2 along the coax to your house (all
>> ground rodded). This method is referred to as "defense in depth"
>
>
> .
> Wouldn't this encourage lightning to go through your tower? (with the
> risk of the concrete holding the tower up being cracked/ or worse)
> I would think that putting earths a safe distance away from the tower's
> support would be better ? (BTW I am not an expert!)
> Not sure how they protect HT Pylons here in the UK - or even that they
> are protected?
>
> Rob

Here in the USA the National Electrical Code [NEC] requires that each leg of the tower be grounded at the tower approximately 1 meter from the tower. Each of the three ground rods shall be 2.5 meters long and connected together by a #6 AWG wire. The tower shall also be connected to the house 'earthing' connection at the service entrance.

The coax from the tower to the house has a directly clamped, not soldered, connection from the braid to a ground rod [also 2.5 meters long] where it enters the house. [RF travels on the inside of the braid, so this connection does not impact RF performance.] This ground rod also

connects to the 'earthing' connection.

Your requirements in GB may be different.

Lightning goes wherever lightning wants to go. After installing your tower disconnect everything from it when not in use; radios, coax cable, control cable, etc.

1174. Re: Free space pathloss calcs and factor K

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 00:50:45 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <wYKdnTODKYK3BaXeRVn-sw@comcast.com>
Source record: 70072

Also, for frequencies above 5 to 6 GHz the effects of atmospheric
absorption become much higher and non linear with frequency. It has to
do with molecular resonance and atomic cross sections of the molecules.

Bob Bob wrote:

> Hi all.
>
> No doubt I could get this reading lots and lots of text books. It might
> however be interesting to air a discussion on it..
>
> Have been reading the free space pathloss formula from the ARRL antenna
> handbook;
>
> Loss in dB = K + 20logf + 20logD
>
> Where f is the freq in GHz and D is the distance in miles
>
> K is a constant of around 96.6dB
>
> I have known about a "fixed K" loss in an antenna system for ages. It
> even made mention I think in this NG recently when talking about a
> passive repeater system. From my own exposure to path modelling
> (EDX/Pathloss etc) I noted a very high dB loss per distance rate in the
> first (say) 100 wavelengths when looking at graphs of same. (I wasnt
> doing the actual job, just providing data to the engineer to compare
> measured with predicted. Fascinating stuff!)
>
> What I wonder is where roughly does the 96dB odd "come from". More
> interestingly can it be reduced by any appreciable amount. Is it maybe a
> antenna to "air" coupling loss, maybe even that a RX antenna cant
> possibly extract all of the energy from the wave as it goes past. I
> would appreciate any input on this.
>
> My initial forays (as a young ham) into LOS paths went through the
> isotropic/point source radiators and looking at the surface area of the
> covered "sphere" containing all of the radiated power idea. Then the RX
> antenna "aperture" area was used to calculate the actual received power.
> Needless to say it never met the actual measured values!
>
> Cheers Bob VK2YQA (in W5)

1175. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:02:54 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <jb5hj1hjqkair7cced71sl18295hqik8m4@4ax.com>
Source record: 70073

On Tue, 27 Sep 2005 00:24:51 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>You must have been reading what I've been writing for the last 6 or 7
>years.

Reg, Yes, I have probably read and learned a good deal from stuff you have written, but I have skipped over a lot of what you have written... probably most noticeably when you and others trade kicks to the groin to see who is the last man standing.

Back on topic:

A point that you hinted at, but might have been overlooked by some is that it can be relatively unimportant that the SWR bridge's sampling line has the same characteristic impedance as the impedance at which its detector has been nulled.

For example, a typical SWR meter designed originally for 75 ohms, with a 0.1m long ideal 75 ohm sampling section, but with the detector adjusted to read nil reflected power with a 50+j0 load on the "antenna" terminals of the meter, will in most cases operate just as well as a 50 ohm SWR meter on 7MHz, as the detector will truly show when it has a 50 ohm load, the indicated VSWR for other loads will substantially correct (ie within typical accuracy for the type of instrument), and the insertion VSWR (~1.02:1) because of the 0.1m of 75 ohm line will be insignificant in practice.

In many amateur reflectometer designs (and in some commercial implementations), very little attention has been given to the characteristic impedance of the sampling section, and in some cases to the insertion VSWR (that results).

I recall testing a relatively expensive SWR meter rated from 1.8 to 150MHz, and noting that whilst it indicated a VSWR<1.1 at 144MHz on a good dummy load a Bird 43 ahead of it indicated an insertion VSWR > 1.5:1. So whilst it was good at indicating a 50+j0 ohm load on its "antenna" terminals, it was not very capable of delivering that load to its "transmitter" terminals.

Owen
--

1176. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:19:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dha6mj$a94$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70074

"Cecil Moore" wrote
>
> On my system, there's a 50 ohm cable from the transceiver to
> the input of the SWR meter and another 50 ohm cable from the
> output of the SWR meter to the balun. Each of these cables
> forces the ratio of the voltage to current in each of the
> traveling waves to a value of 50 ohms. I have an in-line
> Autek WM-1 and no tuner.
> --
==========

Cec,
You can't measure SWR on a line which is less than 1/4-wave long.
Preferably it should be as long as 1/2-wavelength to ensure the max
and min voltage points both occur on it.

But what do you do with the SWR when you have measured it? Of what use
it?

All anybody needs to know is whether the transmitter is terminated or
is not terminated with 50-ohms. This is very important.

And when describing to a novice how your station works there's no need
to mention SWR or reflections. They are quite unecessary complications
and can be dispensed with except perhaps for trolling on newsgroups.

Reg.

1177. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:25:36 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <43389FAF.FF2E1799@earthlink.net>
Source record: 70075
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Ken Taylor wrote:
>
> Me too - where's that store? :-)
>
> Ken

The "Dollar Tree" chain of dollar stores is where I find most of
them. I saw some the other day at a "Save-A-Lot" grocery store, too.

--
?

Michael A. Terrell
Central Florida

1178. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:26:14 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <43389FD5.FF87A0F0@earthlink.net>
Source record: 69976
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Reg Edwards wrote:
>
> > What happened to all the old Bugs Bunny cartoons anyway?
> >
> > - Mike KB3EIA -
>
> ==========
>
> It is unfortunate that Hollywood so long has dominated the world's
> supposedly desirable standards of human behaviour and described, by
> countless examples in films, the ficticious and imagined way of life
> in the USA. But the truth about real life went to pot after Charlie
> Chaplin and others were expelled from your shores.
>
> Things may be different now that the Japanese wealth and enterprise
> have taken over Hollywood. But perhaps it is too late. The Internet,
> not Hollywood, is taking over the dissemination of ideas. Big Brother
> Rules!
>
> They who own and control the means of communication will rule the
> Earth.
>
> Makes a change from so-called SWR meters.
> ----
> Reg, G4FGQ.

Get a life, old man. :(

--
?

Michael A. Terrell
Central Florida

1179. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:30:22 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dha7be$ms5$1@mail.specsol.com>
Source record: 69977

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> Jim says,
> > No, the SWR being measured is on the load side of the meter.
> ==
> Jim,

> I have difficulty in telling you this without hurting your feelings.
> Or perhaps you are just joking and pulling my leg. Try the other one -
> its got bells on.

Meaningless babble.

> I will assume you are not joking. You clearly havn't the foggiest idea
> of how the so-called SWR meter works. Although you may be in good
> company - including not a few professional engineers who have picked
> up old-wives' tales from radio amateurs. And have been led astray by
> the meter being called something which it isn't.

I assure you I have a very good understanding of how SWR meters in
their various incantations work and how SWR works.

> The meter indicates SWR when placed at the ANTENNA end of the line. It
> is the antenna which does the terminating. And the meter gives the
> correct answers only when the line Zo = 50 ohms.

A SWR meter indicates the SWR of whatever is connected to the load
side of the meter relative to the reference impedance the meter is
designed for.

It matters not if the thing connected to the load side of the meter
is an antenna, an antenna with a transmission line, a transmission
line with a dummy load on the end, or two popsicle sticks and a
bubble gum wrapper.

If you are only interested in the SWR of the antenna and don't, or
can't, correct for the effects of real transmission line in between
the meter and the antenna, then you have to connect the antenna
to the load end of the meter directly.

> If there is a tuner or matching network in the line then the meter
> will indicate SWR on the line between the transmitter and the tuner -
> provided the meter is placed next to the tuner.

Tuners have nothing to do with the issue.

You can put a 1956 Buick on the load side of the meter; you still
read SWR of the system at the point of measurement.

It is you that is trying to confuse the issue with arm waving.

> When there is no appreciable length of line between transmitter and
> tuner (as is the very common case) there is no line on which to
> measure SWR. But the meter will indicate an SWR - and tells lies.

Babbling nonsense.

> But there's nothing to worry about just because the meter is
> indicating SWR nonsense. The meter is telling you what you really
> want to know, its exactly why you placed it there - whether or not
> the transmitter is loaded with 50 ohms.

That is not what I would want to know.

I know the output impedance of the transmitter and the line (assuming
it is good) impedance.

What I want to know is the antenna SWR and the measurement of that is
trivial though it seems to have you totally confused.

> ----
> Reg.

--
Jim Pennino

Remove .spam.sux to reply.

1180. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:36:15 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dha7mf$ms5$2@mail.specsol.com>
Source record: 69978

Owen Duffy <owen@no.where> wrote:
> On Mon, 26 Sep 2005 21:39:27 +0000 (UTC), jimp@specsol.spam.sux.com
> wrote:

> >> Jim, that seems inconsistent with your earlier statemetn "No, the SWR
> >> being measured is on the load side of the meter."
> >
> >The load side is the side with the load, i.e. the antenna, on it.
> >
> >> In the example you quoted with a 100 ohm load on a 100 ohm line, were
> >> the line loss low, and the line long enough to be sure to sample a
> >> fully developed voltage maximum and voltage minimum it would be found
> >> that the VSWR was 1:1.
> >
> >Not for a 50 Ohm system, i.e. a transmitter expecting 50 Ohms and a
> >meter calibrated for a 50 Ohm system.

> I am sorry Jim, the VSWR is a property of the transmission line and
> its termination, and the VSWR on that 100 ohm line with a 100 ohm
> termination is 1:1. The VSWR could be *MEASURED* on that line by
> sampling the magnitude of the voltage at different points on the line
> and it would be found that the magnitude of the voltage was constant,
> which means VSWR=1:1.

No, the measured SWR is relative to the design impedance of the SWR
meter which is normally 50 Ohms.

If you use a 100 Ohm SWR meter you get 1:1.

The SWR is a function of the TOTAL SYSTEM impedance connected to the
load side.

Replace the 100 antenna with a 100 Ohm resistor and the reading doesn't
change.

Eliminate the line and connect the 100 Ohm resistor directly to the
meter and the reading doesn't change.

> >
> >> Yet we would expect the "SWR meter designed for 50 Ohms" to which it
> >> is connected (on the load side) to read VSWR=2:1, so is it measuring
> >> the SWR on the load side of the meter as you earlier stated?
> >
> >Yep.

> No, it isn't.

> The SWR meter in your example reads 2:1 when the SWR on the 100 ohm
> line is 1:1. Your example demonstrates that a typical SWR meter does
> not measure, or necessarily indicate the SWR of the (actual)
> transmission line on the load side of itself.

The SWR of the SYSTEM, line and antenna, is NOT 1:1 for a 50 Ohm
reference.

> Owen
> --

--
Jim Pennino

Remove .spam.sux to reply.

1181. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:38:44 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dha7r4$ms5$3@mail.specsol.com>
Source record: 69979

Owen Duffy <owen@no.where> wrote:
> On Tue, 27 Sep 2005 00:24:51 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:

> >You must have been reading what I've been writing for the last 6 or 7
> >years.

> Reg, Yes, I have probably read and learned a good deal from stuff you
> have written, but I have skipped over a lot of what you have
> written... probably most noticeably when you and others trade kicks to
> the groin to see who is the last man standing.

> Back on topic:

> A point that you hinted at, but might have been overlooked by some is
> that it can be relatively unimportant that the SWR bridge's sampling
> line has the same characteristic impedance as the impedance at which
> its detector has been nulled.

> For example, a typical SWR meter designed originally for 75 ohms, with
> a 0.1m long ideal 75 ohm sampling section, but with the detector
> adjusted to read nil reflected power with a 50+j0 load on the
> "antenna" terminals of the meter, will in most cases operate just as
> well as a 50 ohm SWR meter on 7MHz, as the detector will truly show
> when it has a 50 ohm load, the indicated VSWR for other loads will
> substantially correct (ie within typical accuracy for the type of
> instrument), and the insertion VSWR (~1.02:1) because of the 0.1m of
> 75 ohm line will be insignificant in practice.

> In many amateur reflectometer designs (and in some commercial
> implementations), very little attention has been given to the
> characteristic impedance of the sampling section, and in some cases to
> the insertion VSWR (that results).

> I recall testing a relatively expensive SWR meter rated from 1.8 to
> 150MHz, and noting that whilst it indicated a VSWR<1.1 at 144MHz on a
> good dummy load a Bird 43 ahead of it indicated an insertion VSWR >
> 1.5:1. So whilst it was good at indicating a 50+j0 ohm load on its
> "antenna" terminals, it was not very capable of delivering that load
> to its "transmitter" terminals.

> Owen
> --

Inaccurate crap equipment has nothing to do with the arguement.

--
Jim Pennino

Remove .spam.sux to reply.

1182. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:54:56 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4338A687.8D5B94DF@earthlink.net>
Source record: 69980
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Brad wrote:
>
> <LenAnderson@ieee.org> wrote in message
> news:1127271443.195835.320110@g49g2000cwa.googlegroups.com...
> From: K?B on Sep 15, 12:09 pm
>
> >How is "Christian charity" different from other charity, and do I need to
> >be a
> >member of your cult in order to get through the eye of the needle (and why
> >would
> >I want to?)?
>
> Christian Charity is a point scoring exercise with God. It is done for
> selfish reasons, to make sure you are noticed by God and he lets you in.

Really? Then why does the New Testament say "Not by your works, but
by your faith"?

--
?

Michael A. Terrell
Central Florida

1183. Re: Free space pathloss calcs and factor K

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:55:24 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <gE1_e.192789$wr.82820@clgrps12>
Source record: 69981

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:5hpl03-3ps.ln1@p400bob.personal.cox.net...
> Hi all.
>
> No doubt I could get this reading lots and lots of text books. It might
> however be interesting to air a discussion on it..
>
> Have been reading the free space pathloss formula from the ARRL antenna
> handbook;
>
> Loss in dB = K + 20logf + 20logD
>
> Where f is the freq in GHz and D is the distance in miles
>
> K is a constant of around 96.6dB
>
> I have known about a "fixed K" loss in an antenna system for ages. It even
> made mention I think in this NG recently when talking about a passive
> repeater system. From my own exposure to path modelling (EDX/Pathloss etc)
> I noted a very high dB loss per distance rate in the first (say) 100
> wavelengths when looking at graphs of same. (I wasnt doing the actual job,
> just providing data to the engineer to compare measured with predicted.
> Fascinating stuff!)
>
> What I wonder is where roughly does the 96dB odd "come from". More
> interestingly can it be reduced by any appreciable amount. Is it maybe a
> antenna to "air" coupling loss, maybe even that a RX antenna cant possibly
> extract all of the energy from the wave as it goes past. I would
> appreciate any input on this.
>
> My initial forays (as a young ham) into LOS paths went through the
> isotropic/point source radiators and looking at the surface area of the
> covered "sphere" containing all of the radiated power idea. Then the RX
> antenna "aperture" area was used to calculate the actual received power.
> Needless to say it never met the actual measured values!
>
> Cheers Bob VK2YQA (in W5)

Take the ratio of the destination antenna aperture (0.13*lambda^2 for a half wave dipole), to the surface area of a sphere, of a radius equal to the distance between the source and destination antennas (i.e. Pr/Pt). The assumption is that the source is isotropic. Massaging the above expression will produce a constant and the sum of two logs.

Regards,

Frank

1184. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 01:59:46 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <fc9hj1thr8jn8k8qbr2gb2vpom6icvjof1@4ax.com>
Source record: 69982

On Tue, 27 Sep 2005 01:36:15 +0000 (UTC), jimp@specsol.spam.sux.com
wrote:

>Owen Duffy <owen@no.where> wrote:
>> On Mon, 26 Sep 2005 21:39:27 +0000 (UTC), jimp@specsol.spam.sux.com
>> wrote:
>
>
>> >> Jim, that seems inconsistent with your earlier statemetn "No, the SWR
>> >> being measured is on the load side of the meter."
>> >
>> >The load side is the side with the load, i.e. the antenna, on it.
>> >
>> >> In the example you quoted with a 100 ohm load on a 100 ohm line, were
>> >> the line loss low, and the line long enough to be sure to sample a
>> >> fully developed voltage maximum and voltage minimum it would be found
>> >> that the VSWR was 1:1.
>> >
>> >Not for a 50 Ohm system, i.e. a transmitter expecting 50 Ohms and a
>> >meter calibrated for a 50 Ohm system.
>
>> I am sorry Jim, the VSWR is a property of the transmission line and
>> its termination, and the VSWR on that 100 ohm line with a 100 ohm
>> termination is 1:1. The VSWR could be *MEASURED* on that line by
>> sampling the magnitude of the voltage at different points on the line
>> and it would be found that the magnitude of the voltage was constant,
>> which means VSWR=1:1.
>
>No, the measured SWR is relative to the design impedance of the SWR
>meter which is normally 50 Ohms.

The SWR on the line depends on the characteristic impedance of the
line and the impedance of the termination of the line. 50 ohms does
not come into it.

The SWR on your proposed 100 ohm line with a 100 ohm termination is
1:1. If your measurement indicates anything else, then you need to
consider your measurement as invalid.

Owen
--

1185. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 02:04:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <2N1_e.844$Fi3.75@newssvr29.news.prodigy.net>
Source record: 69983

Reg Edwards wrote:
> You can't measure SWR on a line which is less than 1/4-wave long.

Because your measurements are taken 1/4WL apart, your SWR value
will be in error for all feedlines except lossless ones.

SWR can be had at any point on a transmission line.
Measure the forward power and reflected power at any point.
SWR = [SQRT(Pfor)+SQRT(Pref)]/[SQRT(Pfor)-SQRT(Pref)]

The transmission line length must only be long enough such that
the V/I ratio is forced to the Z0 value. According to some pretty
smart guys I asked, that's about 2% of a wavelength.
--
73, Cecil http://www.qsl.net/w5dxp

1186. Re: Free space pathloss calcs and factor K

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 02:06:58 UTC
From: Dario <dariolq@yahoo.com>
Message-ID: <1127786818.194570.169180@g43g2000cwa.googlegroups.com>
Source record: 69984

Bob Bob,
The formula for pathloss of a signal is

= 10*log10([lambda/(4*pi*D)]^2) {See any myriad of texts}

where log10 is log base 10, lambda is the wavelength, D is the LOS distance from one station to another, and of course pi is ~ 3.14. For this formula to work, lambda and D need to be in the same units. Using logarithm theorems we can rewrite it as

= 20*log10(lambda/(4*pi*D))

Using more log theorems, this equals

= 20*log10(lambda) - 20*log10(4*pi*D)
= 20*log10(lambda) - [20*log10(4) + 20*log10(pi) + 20*log10(D)]
= 20*log10(lambda) - 20*log10(4) - 20*log10(pi) - 20*log10(D)

lambda = c/f where c is the speed of light and f is the frequency (in the same unit system)

so

= 20*log10(c/f) - 20*log10(4) - 20*log10(pi) - 20*log10(D)
= 20*log10(c)- 20*log(f) - 20*log10(4) - 20*log10(pi) - 20*log10(D)

Now... we need to make sure we are using the same unit convention. If D is to be in MILES, c needs to be in miles per second.

c ~= 3*10^8 m/s
and in miles per second
c ~= 186411.4 mi/s

= [20*log10(c) - 20*log10(4) - 20*log10(pi)] - 20*log10(D) - 20*log(f)
plug into your handy-dandy calculator
= (83.4 dB) - 20*log10(D) - 20*log(f)

However, f can be refered to in GHz rather than Hertz so

= (83.4 dB) - 20*log10(D) - 20*log(F_in_GHz*10^9)
= (83.4 dB) - 20*log10(D) - [20*log(F_in_GHz) + 20*log10(10^9)]
= (83.4 dB) - 20*log10(D) - 20*log(F_in_GHz) - 20*log10(10^9)
= (83.4 dB) - 20*log10(D) - 20*log(F_in_GHz) - 180

and...

= (-96.6 dB) - 20*log10(D) - 20*log(F_in_GHz)

Note that to be mathematically consistent, when you "add" loss to a
system, you subtract a number therefore your value is actually
negative. It's mostly semantics. When you say "loss" you mean
subract.

Hope this helps!

Dario

Bob Bob wrote:
> Hi all.
>
> No doubt I could get this reading lots and lots of text books. It might
> however be interesting to air a discussion on it..
>
> Have been reading the free space pathloss formula from the ARRL antenna
> handbook;
>
> Loss in dB = K + 20logf + 20logD
>
> Where f is the freq in GHz and D is the distance in miles
>
> K is a constant of around 96.6dB
>
> I have known about a "fixed K" loss in an antenna system for ages. It
> even made mention I think in this NG recently when talking about a
> passive repeater system. From my own exposure to path modelling
> (EDX/Pathloss etc) I noted a very high dB loss per distance rate in the
> first (say) 100 wavelengths when looking at graphs of same. (I wasnt
> doing the actual job, just providing data to the engineer to compare
> measured with predicted. Fascinating stuff!)
>
> What I wonder is where roughly does the 96dB odd "come from". More
> interestingly can it be reduced by any appreciable amount. Is it maybe a
> antenna to "air" coupling loss, maybe even that a RX antenna cant
> possibly extract all of the energy from the wave as it goes past. I
> would appreciate any input on this.
>
> My initial forays (as a young ham) into LOS paths went through the
> isotropic/point source radiators and looking at the surface area of the
> covered "sphere" containing all of the radiated power idea. Then the RX
> antenna "aperture" area was used to calculate the actual received power.
> Needless to say it never met the actual measured values!
>
> Cheers Bob VK2YQA (in W5)

1187. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 02:15:39 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dhaa0b$1pe$1@mail.specsol.com>
Source record: 69985

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:

> "Cecil Moore" wrote
> >
> > On my system, there's a 50 ohm cable from the transceiver to
> > the input of the SWR meter and another 50 ohm cable from the
> > output of the SWR meter to the balun. Each of these cables
> > forces the ratio of the voltage to current in each of the
> > traveling waves to a value of 50 ohms. I have an in-line
> > Autek WM-1 and no tuner.
> > --
> ==========

> Cec,
> You can't measure SWR on a line which is less than 1/4-wave long.
> Preferably it should be as long as 1/2-wavelength to ensure the max
> and min voltage points both occur on it.

Total and absolute nonsense.

Where do you come up with this stuff?

<snip arm waving speech>

--
Jim Pennino

Remove .spam.sux to reply.

1188. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 02:25:11 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dhaai7$1pe$2@mail.specsol.com>
Source record: 69986

Owen Duffy <owen@no.where> wrote:
> On Tue, 27 Sep 2005 01:36:15 +0000 (UTC), jimp@specsol.spam.sux.com
> wrote:

> >Owen Duffy <owen@no.where> wrote:
> >> On Mon, 26 Sep 2005 21:39:27 +0000 (UTC), jimp@specsol.spam.sux.com
> >> wrote:
> >>
> >>
> >> >> Jim, that seems inconsistent with your earlier statemetn "No, the SWR
> >> >> being measured is on the load side of the meter."
> >> >>
> >> >The load side is the side with the load, i.e. the antenna, on it.
> >> >
> >> >> In the example you quoted with a 100 ohm load on a 100 ohm line, were
> >> >> the line loss low, and the line long enough to be sure to sample a
> >> >> fully developed voltage maximum and voltage minimum it would be found
> >> >> that the VSWR was 1:1.
> >> >>
> >> >Not for a 50 Ohm system, i.e. a transmitter expecting 50 Ohms and a
> >> >meter calibrated for a 50 Ohm system.
> >>
> >> I am sorry Jim, the VSWR is a property of the transmission line and
> >> its termination, and the VSWR on that 100 ohm line with a 100 ohm
> >> termination is 1:1. The VSWR could be *MEASURED* on that line by
> >> sampling the magnitude of the voltage at different points on the line
> >> and it would be found that the magnitude of the voltage was constant,
> >> which means VSWR=1:1.
> >>
> >No, the measured SWR is relative to the design impedance of the SWR
> >meter which is normally 50 Ohms.

> The SWR on the line depends on the characteristic impedance of the
> line and the impedance of the termination of the line. 50 ohms does
> not come into it.

We are not talking about SWR on the line, we are talking about SWR
at the input END of the line; big difference.

> The SWR on your proposed 100 ohm line with a 100 ohm termination is
> 1:1. If your measurement indicates anything else, then you need to
> consider your measurement as invalid.

Once again, we are not talking about SWR *ON* the line, we are talking about
SWR as seen at the input *END* of the line; big difference.

Furthermore, the SWR *ANYWHERE* on the line is *NOT* 1:1 for a 50 Ohm reference.

Try hooking a length of 93 Ohm line (which is easier to get than 100 Ohm line) terminated with a 93 Ohm resistor to any 50 Ohm SWR meter of any type.

Then hook just the 93 Ohme resistor to the meter and tell me what the difference is in the readings.

> Owen
> --

If anything is misnamed it is the term SWR.

SWR is nothing more than a dimensionless impedance ratio.

You do NOT need a transmission line to have SWR in spite of the W in SWR standing for 'wave'.

--
Jim Pennino

Remove .spam.sux to reply.

1189. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 02:38:44 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <a4chj1lrhf09r147tetvfrv78i3pg7o00d@4ax.com>
Source record: 69987

On Tue, 27 Sep 2005 02:25:11 +0000 (UTC), jimp@specsol.spam.sux.com
wrote:

>SWR is nothing more than a dimensionless impedance ratio.

Is that so... Owen
--

1190. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 02:49:59 UTC
From: kashe@sonic.net
Message-ID: <spchj1pr7ee27ssegm59vui1ljrjcq6nof@4ax.com>
Source record: 69988
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 06:42:51 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Thu, 22 Sep 2005 03:16:14 GMT, kashe@sonic.net wrote:
>
>>On Mon, 19 Sep 2005 22:22:10 -0400, Uncle Ted <malican40@verizon.com>
>>wrote:
>>
>>>On Mon, 19 Sep 2005 05:41:38 GMT, kashe@sonic.net wrote:
>>>
>>>>>>>It's bad enough that people feel a need to believe in any deities at
>>>>>>>all, but when you have to listen to a bunch of old men in robes half a
>>>>>>>world away tell you how to live your life, you're pretty screwed up.
>>>>>>
>>>>> Is this a slam against our Muslim brethren? A comment on the
>>>>>position of Saudi Arabian women?
>>>>
>>>>Pope worshipers and Mohamahdists are all the same to me...
>>>
>>> That says more about you than about them.
>>
>>Such as?

If you have to ask ....

1191. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 02:54:31 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dhac97$8v1$1@mail.specsol.com>
Source record: 69989

Owen Duffy <owen@no.where> wrote:
> On Tue, 27 Sep 2005 02:25:11 +0000 (UTC), jimp@specsol.spam.sux.com
> wrote:

> >SWR is nothing more than a dimensionless impedance ratio.

> Is that so... Owen
> --

Yes, it is so and it is equal to:

SWR = (A + B)/(A - B)

Where:

A = sqrt ((R + Z)^2 + X^2)
B = sqrt ((R - Z)^2 + X^2)

R = resistive component of load impedance in Ohms.
X = reactive component of load impedance in Ohms.
Z = reference impedance (purely resistive) in Ohms

If you don't believe it, get some resistors, capacitors and a half
way decent SWR meter and do some experiments; no transmission line
required.

--
Jim Pennino

Remove .spam.sux to reply.

1192. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:10:23 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <AeadndN8Uv-DJaXeRVn-2Q@adelphia.com>
Source record: 69990
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Reg Edwards wrote:
>>What happened to all the old Bugs Bunny cartoons anyway?
>>
>>- Mike KB3EIA -
>
>
> ==========
>
> It is unfortunate that Hollywood so long has dominated the world's
> supposedly desirable standards of human behaviour and described, by
> countless examples in films, the ficticious and imagined way of life
> in the USA. But the truth about real life went to pot after Charlie
> Chaplin and others were expelled from your shores.
>
> Things may be different now that the Japanese wealth and enterprise
> have taken over Hollywood. But perhaps it is too late. The Internet,
> not Hollywood, is taking over the dissemination of ideas. Big Brother
> Rules!
>
> They who own and control the means of communication will rule the
> Earth.
>
> Makes a change from so-called SWR meters.

Possibly, Reg, but it still doesn't tell me where Bugs went! ;^)

- Mike KB3EIA -

1193. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:14:16 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <u5ehj1lq86joqcaauhvn3lq4v1cbm2a5sb@4ax.com>
Source record: 69996
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 26 Sep 2005 20:52:55 -0500, Matt Osborn <> wrote:

>On Mon, 26 Sep 2005 22:30:50 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>Matt Osborn wrote:
>>> Gravity has never been proven.
>>
>>I know the answer to this one from my hippie days.
>>
>>There is no gravity! The earth sucks!
>
>So does the wind!
>

No. It blows.

1194. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:18:32 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <jcehj19t0tk03ppb24peablo83rpodn7qe@4ax.com>
Source record: 69997
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 27 Sep 2005 01:54:56 GMT, "Michael A. Terrell"
<mike.terrell@earthlink.net> wrote:

>> Christian Charity is a point scoring exercise with God. It is done for
>> selfish reasons, to make sure you are noticed by God and he lets you in.
>
>
> Really? Then why does the New Testament say "Not by your works, but
>by your faith"?

This link should explain it for you...

http://www.skepticsannotatedbible.com/contra/faithalone.html

1195. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:19:05 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <0gehj1pijf4cfvvp6hgu72rqadvvlnmag8@4ax.com>
Source record: 69991

On Mon, 26 Sep 2005 15:16:51 GMT, "k" <spam@uce.gov> wrote:

>So, what does it mean, or would you have to kill me if you told me? <G>

I WOULD have to kill you if I told you. You have to know the secret
handshake. :-)

Jon
>
>Jer
>
>"J. Teske" <jdteske@comcast.net> wrote in message
>news:982gj1hr87ahvbl001cpkstuttn754aa6c@4ax.com...
>: On 25 Sep 2005 23:18:18 GMT, bg998@FreeNet.Carleton.CA (Martin Potter)
>: wrote:
>:
>: >
>: >Tom Ring (news0002@taring.org) writes:
>: >>
>: >> I would say say, please keep it up, on or off topic. Thanks so
>much for
>: >> these pieces of history.
>: >>
>: >
>: >
>: >Hear, hear!!
>: >
>: >... Martin VE3OAT
>: >ex-CSE (CANUKUS Eyes Only)
>:
>: Hey Martin, I know what that all means
>:
>: Jon W3JT, Retired NSA
>: >
>:
>

1196. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:24:00 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <430cd$4338bb7e$97d56a13$14782@ALLTEL.NET>
Source record: 69992

Jesus agreed with your view. He admonished Peter, "Get thee behind me Satin", when Peter suggested that being the son of God he could thwart his death.

Jim Higgins" <me7@privacy.net> wrote in message news:cibhj1hv17ka2ppd2fshsan765tv94l51c@4ax.com...
> On Mon, 26 Sep 2005 11:51:06 -0700, Jim Kelley <jwkelley@nospam.edu>

>
> Christians blaming the crucifixion on anyone is what I'd call stuck on
> stupid. Instead of blaming anyone, Christians should be looking for
> someone to thank. The crucifixion and following return from the dead
> is at the very core of Christianity. Without it it's arguable whether
> Christianity would exist. Those looking to place blame are simply
> ignorant of the major dogma on which their religion is based.

1197. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:24:26 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <KX2_e.608$lc1.145@newssvr21.news.prodigy.com>
Source record: 69993
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael A. Terrell wrote:
> Reg Edwards wrote:
>
>>>What happened to all the old Bugs Bunny cartoons anyway?
>>>
>>>- Mike KB3EIA -
>>
>>==========
>>
>>It is unfortunate that Hollywood so long has dominated the world's
>>supposedly desirable standards of human behaviour and described, by
>>countless examples in films, the ficticious and imagined way of life
>>in the USA. But the truth about real life went to pot after Charlie
>>Chaplin and others were expelled from your shores.
>>
>>Things may be different now that the Japanese wealth and enterprise
>>have taken over Hollywood. But perhaps it is too late. The Internet,
>>not Hollywood, is taking over the dissemination of ideas. Big Brother
>>Rules!
>>
>>They who own and control the means of communication will rule the
>>Earth.
>>
>>Makes a change from so-called SWR meters.
>>----
>>Reg, G4FGQ.
>
>
>
> Get a life, old man. :(
>

If Reg doesn't like Hollywood, there's always Bollywood.
73,
Tom Donaly, KA6RUH

1198. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:28:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6371f$4338bc6e$97d56a13$15100@ALLTEL.NET>
Source record: 69994
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

You are correct Cecil, you and Matt exisit only as figments of my
imagination.

For my own amusement, I sometimes let others think I am a figment of theirs.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:jB_Ze.554$lc1.0@newssvr21.news.prodigy.com...
> Matt Osborn wrote:
> > Nothing can be proven using the scientific method.
>
> Hey, let me try that same approach. You do not exist.
> --
> 73, Cecil http://www.qsl.net/w5dxp

1199. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:29:20 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <k03_e.610$lc1.390@newssvr21.news.prodigy.com>
Source record: 69995
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael A. Terrell wrote:

> Brad wrote:
>
>><LenAnderson@ieee.org> wrote in message
>>news:1127271443.195835.320110@g49g2000cwa.googlegroups.com...
>>From: K?B on Sep 15, 12:09 pm
>>
>>
>>>How is "Christian charity" different from other charity, and do I need to
>>>be a
>>>member of your cult in order to get through the eye of the needle (and why
>>>would
>>>I want to?)?
>>
>>Christian Charity is a point scoring exercise with God. It is done for
>>selfish reasons, to make sure you are noticed by God and he lets you in.
>
>
>
> Really? Then why does the New Testament say "Not by your works, but
> by your faith"?
>

Faith and works are, like voltage and current, inextricably intertwined.
The proof of faith is the good work. Those who do no good have no faith.
73,
Tom Donaly, KA6RUH

1200. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 03:52:40 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <f2fhj1t8rt42ifvigavuhc0htstm377ocu@4ax.com>
Source record: 69998

On Tue, 27 Sep 2005 02:54:31 +0000 (UTC), jimp@specsol.spam.sux.com
wrote:

>Owen Duffy <owen@no.where> wrote:
>> On Tue, 27 Sep 2005 02:25:11 +0000 (UTC), jimp@specsol.spam.sux.com
>> wrote:
>
>
>> >SWR is nothing more than a dimensionless impedance ratio.

The fundamental definition of SWR flows from the behaviour and
properties of RF transmission lines.

When a transmission line is terminated in an impedance other than its
characteristic impedance, there will be both a forward wave and a
reflected wave of such magnitude to resolve the conditions that must
apply at the termination.

The forward wave and the reflected wave sum at all points along the
line having regard for their magnitudes and relative phase to produce
a "standing wave". The Standing Wave Ratio (SWR or VSWR) is defined to
mean the ratio of the maximum to the minimum of the magnitude of the
standing wave voltage pattern along the line.

The SWR on a lossless line can be calculated knowing the complex
characteristic impedance of the line and the complex load impedance.

The SWR on the line does not depend in any way on some unrelated
independent reference resistance as you suggest in your formula.

You seem to be suggesting that your redefined SWR is a really good
(obscure) way to talk about an impedance (independently of a
transmission line) in terms of some standardised reference value, and
you can throw away the fundamental meaning of SWR to support your
SWR(50) concept. In your terms (independently of a transmission line),
for instance, a Z of 60+j10 would be SWR(50)=1.299, and so would an
infinite number of other Zs have SWR(50)=1.299... how is that of
value. To know Z is 60+j10 is to know more than to know SWR(50)=1.299.

Owen
--

1201. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 04:02:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhag95$j0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69999

Owen,

SWR meters with a sampling line.

The only experience I've had has been I once made one for HF. It was of the type where a second wire is drawn alongside the inner conductor of a short length of coaxial line of impedance in the same street as the system it is to work with.

Operating frequencies covered the whole of the HF band. That is a very wide band. Which indicates that line length plays no part in measuring accuracy once calibrated.

To explain how the thing works it is necessary to return to what it really is. It is a resistance bridge. All so-called SWR meters, whatever the circuit or form of construction, are resistance bridges.

The bridge has 3 internal ratio arms. The 4th arm is the variable transmitter load. If all 4 arms are of same resistance we have a very sensitive arrangement suitable for QRP transmitters. However, 3/4 of the TX power is dissipated in the 3 internal bridge arms.

For higher power transmitters it is necessary to use high ratios for the ratio arms. In the case of meters which use a little ferrite ring as a current transformer, a resistor of the order of 30 to 100 ohms can be shunted across the current transformer secondary winding while the primary winding has an input resistance of the order of 0.1 ohms which forms the value of the ratio arm in series with the external load. This 0.1-ohm arm is capable of carrying the load current of several amps with only a small power loss.

The other two ratio arms can be a pair of high value resistors in the same ratio as occurs via the current transformer. If the input resistance of the current transformer is 0.1 ohms then the bridge ratio is 50 / 0.1 = 500:1 where 50 ohms is the usual value of the load resistance when the bridge is balanced and SWR = 1:1

The two high impedance arms can be capacitors in the same ratio of 500:1 which have zero power dissipation but have a minor effect on accuracy. They introduce a small phase angle into the load as seen by the transmitter through the meter. The error increases with increasing frequency.

It will be seen that the take-off point is effectively the same for both current and voltage.

Returning to the so-called sampling line.

There is a bridge configuration which is not quite so obvious. But instead of a current transformer the current is picked off by means of a short length of wire in parallel with the coaxial inner conductor by virtue of their mutual inductance. The line is too short for propagation effects to play a significant part.

Voltage is picked off at the same point by virtue of the capacitance between the wire and coaxial inner conductor. The phase relationship between volts and amps can be reversed just by reversing the direction of propagation through the meter.

The bridge ratio is set partially by the ratio of the impedances Zo of the additional wire and inner coax conductor. The length of coaxial line affects only the bridge sensitivity and power dissipated in the meter. As you must be aware, sensitivity falls of fast with decreasing frequency and 160 meters was my favourite band. So the home-brewed meter was soon discarded and I returned to ferrite rings.

I was left with the impression it was very easy to make and that almost anything would work.

Hope you can understand the foregoing.

Reg.

1202. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 04:53:27 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4338D057.B9B48493@earthlink.net>
Source record: 70000
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Donaly wrote:
>
> Faith and works are, like voltage and current, inextricably intertwined.
> The proof of faith is the good work. Those who do no good have no faith.
> 73,
> Tom Donaly, KA6RUH

I was taught as a child to help others. I have lost count of the things I've done for family, friends and strangers without asking anything in return. I have also had others help me when the tables were turned. They have fed me, given me rides, or paid so I could see a doctor after I was fired for being unconscious for five days with the flu. It works both ways. Today, I am 100% disabled, and only able to work a couple hours a day so I spend most of that time collecting and repairing donated computers for the local "Vets Helping Vets" group, who gives them to other disabled vets who are unable to afford a computer. It gives me something to do, and still helps others. I have offered to help the hams around here to repair their equipment, but they dismissed my offer because I don't have a amateur radio licensee. Its their loss. I have a well equipped shop here at home, and a good stock of parts going to waste. I guess working on a 195 UHF KW transmitter or building commercial microwave equipment isn't good enough for them? It doesn't matter to me anymore. I'll keep restoring early amateur and general coverage receivers as long as I'm able to prop myself up at one of my benches. My current project is a National NC-183R that is taking way too long to restore because it was butchered by an EE with too much time on his hands. There are huge wads of capacitors taped together with wires running everywhere under the chassis so I will make sure I have every part before I clean up that mess.

--
?

Michael A. Terrell
Central Florida

1203. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 05:08:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhak54$8t7$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70001

Jim,

Perhaps there's some misunderstanding about location of the meter and what it is measuring. Let's try to clear it up.

Would you please do us both a favour by answering the following simple question?

There is a 50 ohm line feeding a 100 ohm antenna.

There is an SWR meter located at the line-antenna junction.

The meter has a reading. Does the reading apply to SWR of the antenna, or does it apply to the SWR along the feedline?

Antenna or Feedline?

Reg.

1204. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 06:26:00 UTC
From: kashe@sonic.net
Message-ID: <dephj1t4mn7bm2kgeb2kpj1i319k622e5t@4ax.com>
Source record: 70002
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 23 Sep 2005 15:33:19 -0400, Michael Coslo
<mjc5@enoughalready.psu.edu> wrote:

>
>
>Tom Ring wrote:
>> Tom Ring wrote:
>>
>>> Matt Osborn wrote:
>>>
>>>>
>>>>
>>>> A few thousand compared to 50 million?
>>>>
>>>
>>> Well that certainly makes it ok. You mean you aren't an absolutist?
>>>
>>> tom
>>> K0TAR
>>>
>>
>> The difference between me and you is that I know it's always wrong, and
>> you seem to have left an opening for your "religion" to do evil things
>> becuase your morality says it's ok.
>>
>> I'm sorry that you can't understand that an atheist can have morals not
>> tied to superstition, but to to true right and wrong.
>
>First Crusade:
>
> 12,000 Jews killed in the Rhine valley.
> 6000 killed in Jerusalem when they torched the synagogue there
> 30,000 Muslims killed at the al Aqsa mosque.
> at least 200,000 killed over the length of the crusades.
>
> Then let us not forget the Iquisitions, witch-hunts and other jollies
>that went on.
>
> And there is plenty more to go around on all sides. Appears
>
> We're a long way from "a few thousand".
>
> But as the recent poster Mike has noted, this is pretty off topic, so

>I'll refrain from any more posting in this thread.
>
> - Mike KB3EIA -

Typical -- I've had my say, so the discussion is terminated.
CS.

1205. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 06:28:50 UTC
From: kashe@sonic.net
Message-ID: <9jphj11p35trkou22sha53f27rkclo0sru@4ax.com>
Source record: 70003
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 24 Sep 2005 15:21:03 -0700, Zoran Brlecic
<...WA7AA...@get.lost> wrote:

>Vito wrote:
>
>
>> Not to mention Hitler.
>
>And we have a Godwin, all...

Dumb shit -- the reference is apropos in the midst of a
discussion of mass murderers. You lose.

>
>Btw, Hitler, if you must bring him up, was a Christian.

1206. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 06:30:21 UTC
From: kashe@sonic.net
Message-ID: <2nphj15rs2cjam36bg7fu9gg2pv3d247gm@4ax.com>
Source record: 70004
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 22 Sep 2005 20:13:50 -0700, Zoran Brlecic
<...WA7AA...@get.lost> wrote:

>Matt Osborn wrote:
>
>>>>>I hardly consider myself a fanatic, and am extremely unlike to "hammer"
>>>>>anyone over religion, or lack there of.
>>>>>
>>>>>Some of the most fanatical are those members of the religion of atheism.
>>>
>>>Yeah? When was the last time an atheist:
>>
>>
>> Ever hear of Stalin? Lenin? Mao?
>>
>> Can you name three other people who have been responsible for as many
>> untimely deaths as these three?
>
>
>This tired old argument???
>
>First of all I notice that you haven't addressed any of the specific
>examples I gave about *theists* and their religious crimes.
>Second, all of the examples I gave are about theists committing crimes
>against humanity precisely *because* of their religion, directly and
>indirectly.
>As far as "Stalin, Lenin and Mao" are concerned, their crimes were most
>certainly not committed in order to promote atheism, unless that atheism
>was a vehicle for establishing communism, which btw, is de facto a form
>of religion. Religion was not outlawed in the USSR and priests were
>being prosecuted no more than the rest of the society. Communism and
>theism can co-exist and did successfully in most communist countries.
>Besides, Stalin spent years in a seminary. Some atheist.
>One could just as successfully argue that since "Stalin, Lenin and Mao"
>committed crimes and they all ate bread, then by your logic people who
>eat bread are murderers.

Mother's milk as gateway drug.

1207. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 08:33:30 UTC
From: N2EY@AOL.COM
Message-ID: <1127810010.581113.28990@o13g2000cwo.googlegroups.com>
Source record: 70005
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Mike Coslo wrote:

> > "Pardon me while I slip out of these wet clothes
> > and into a dry
> > martini." - Groucho (or was it Bugs Bunny?)

I think it was Groucho
>
> What happened to all the old Bugs Bunny cartoons anyway?
>
Warner Bros. has them safely tucked away. Some that were made in the
1940s are not shown anymore because they contain parodies and
stereotypes now considered racist.

--

I think you were asking about Foghorn Leghorn...

"Nice girl, but about as sharp as a sack o' wet mice"

"DAWG! I say, dawg, you look like two miles o' bad road!"

"That widder hen reminds me of the road from Fort Worth to Dallas - no
curves"

"No, I better not look - I just might be in there"

"That dawg reminds me of Paul Revere's ride - a little light in the
belfry.."

73 de Jim, N2EY

that's all, folks!

1208. Re: antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 11:09:45 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <4OednblHo-PBtaTeRVn-hQ@bright.net>
Source record: 70006

Nah, RF is good for burning off warts and such ;)

Scott
N0EDV

Dave Platt wrote:

This can lead to
> "RF in the shack" problems, and you may need a really good RF ground
> for the tuner and rig just to keep RF voltages on the equipment
> chassis from being a problem.
>

1209. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 11:39:01 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-2709050739170001@jbw-mac.itd.nrl.navy.mil>
Source record: 70007

In article <dh2krs$441$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>, "Reg Edwards" <g4fgq,regp@ZZZbtinternet,com> wrote:

> Remember the E-H antenna which abused the works of James Clerk
> Maxwell? Fractals fall into the same category. They serve only to
> increase the complexity of modelling programs!
> ----
> Reg.

Hello, and I don't think that a comparison between snake-oil antennas (e.g. E-H and crossed-field types) and fractal antennas is justified. What has compelled you to reach this conclusion? Marketing-hype aside, numerous papers with measured data on fractal design have been published in the IEEE's Transactions on Antennas and Propagation. The Electroscience Lab at Ohio State Univ. has been investigating fractal designs for a while now. An sntenna based on a fractal pattern is one method (not the only one) of placing an antenna in a small space but not having it too short electrically. I think it's too early to say whether or not fractal antennas will be the preferred technique for packaging commercial/military antennas into small footprints such as handheld radios. From what I've read the technology shows promise. Sincerely, and 73s from N4GGO,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

1210. Re: Beverage Antenna in WW2 - QCWA092205.txt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 12:56:57 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <31303030383738354339 4FA998@zetnet.co.uk>
Source record: 70009

Can someone please tell me how to 'paste' a copy of text into the 'text' portionof a new message?

Walt

To copy & paste text or basicly anything into a new page. With your mouse, place the curser on the left hand side of the start of your choosen text. Next, keep your finger on the left mouse button, dragging the curser across your choosen text until it is all highlighted. Now clik with your right mouse button and a drop down box will appear, clik copy. The copied text is now on the clipboard. In your new document, right clik again and the drop down box appears once more. Clik paste, and the copied text will now appear in your new document page. The other explanations in this thread are via the key board. Simple really, have fun. Dave. The drop down box is self explanitary.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Dont.

1211. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 13:08:46 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43394485_3@newsfeed.slurp.net>
Source record: 70010

"Reg Edwards" wrote:
> There is a 50 ohm line feeding a 100 ohm antenna.
> There is an SWR meter located at the line-antenna junction.
> The meter has a reading. Does the reading apply to SWR of the
> antenna, or does it apply to the SWR along the feedline?

It applies to the match of the RF network that follows the SWR meter to the impedance for which the SWR meter was calibrated.

And if in your example the SWR meter has been calibrated for 50 ohms, and is moved to the input end of that line+antenna RF network, it will also have a reading -- which will be the same as when it was inserted at the antenna-line junction, less the round-trip RF attenuation of the transmission line (assuming that the transmission line is 50 +/- j0 ohms throughout its length).

In fact it is a common practice to optimise the transmission line/antenna match of commercial FM and TV broadcast antenna systems by use of a variable transformer inserted at the antenna input, whose adjustment is made by reference to the far-end reflection seen at the sending end of the transmission line, using a high-directivity reflectometer, or SWR meter.

The same physics applies to ham antenna systems and methods/means of measurement.

RF

Visit http://rfry.org for FM transmission system papers.

1212. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 13:16:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wCb_e.641$Y_5.294@newssvr11.news.prodigy.com>
Source record: 70008

Reg Edwards wrote:
> There is a bridge configuration which is not quite so obvious. But
> instead of a current transformer the current is picked off by means of
> a short length of wire in parallel with the coaxial inner conductor by
> virtue of their mutual inductance. The line is too short for
> propagation effects to play a significant part.

The pickup lines in my Heathkit HM-15 are terminated on one
end with a 50 ohm resistor. One pickup line thus attenuates
the reflected traveling wave and allows the forward traveling
wave to be rectified. The other pickup line attenuates the
forward traveling wave and allows the reflected traveling wave
to be rectified. Knowing the peak values of both of these two
traveling waves allows a calibrated meter to indicate SWR.
--
73, Cecil http://www.qsl.net/w5dxp

1213. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 14:00:10 UTC
From: Dave <noone@nowhere.com>
Message-ID: <V4WdnRpUF8zyzaTeRVn-uA@crocker.com>
Source record: 70011

"J. B. Wood" <wood@itd.nrl.navy.mil> wrote in message
news:wood-2709050739170001@jbw-mac.itd.nrl.navy.mil...
> In article <dh2krs$441$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>, "Reg
> Edwards" <g4fgq,regp@ZZZbtinternet,com> wrote:
>
>
>> Remember the E-H antenna which abused the works of James Clerk
>> Maxwell? Fractals fall into the same category. They serve only to
>> increase the complexity of modelling programs!
>> ----
>> Reg.
>
> Hello, and I don't think that a comparison between snake-oil antennas
> (e.g. E-H and crossed-field types) and fractal antennas is justified. What
> has compelled you to reach this conclusion? Marketing-hype aside,
> numerous papers with measured data on fractal design have been published
> in the IEEE's Transactions on Antennas and Propagation. The
> Electroscience Lab at Ohio State Univ. has been investigating fractal
> designs for a while now. An sntenna based on a fractal pattern is one
> method (not the only one) of placing an antenna in a small space but not
> having it too short electrically. I think it's too early to say whether
> or not fractal antennas will be the preferred technique for packaging
> commercial/military antennas into small footprints such as handheld
> radios. From what I've read the technology shows promise. Sincerely, and
> 73s from N4GGO,
>
> John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
> Naval Research Laboratory
> 4555 Overlook Avenue, SW
> Washington, DC 20375-5337

fractal antennas in this newsgroup got a bad rap from some rather abrasive
discussions in the past. at least when properly analyzed fractals perform
as predicted. the problem in here was that they were compared anecdotally
to full size antennas without proper analysis. and the regular poster had
professional commercial interests in fractal antenna products which led to
arguments about commercial use of the group, patent infringement, and all
sorts of lawsuit threats.

1214. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 15:21:51 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dhbo2fpbe1@mail.specsol.com>
Source record: 70012

Owen Duffy <owen@no.where> wrote:
> On Tue, 27 Sep 2005 02:54:31 +0000 (UTC), jimp@specsol.spam.sux.com
> wrote:

> >Owen Duffy <owen@no.where> wrote:
> >> On Tue, 27 Sep 2005 02:25:11 +0000 (UTC), jimp@specsol.spam.sux.com
> >> wrote:
> >>
> >>
> >> >SWR is nothing more than a dimensionless impedance ratio.

> The fundamental definition of SWR flows from the behaviour and
> properties of RF transmission lines.

And power=EI. And it also equals I^2*R and E^2/R.

SWR can be expressed in terms of power ratios, current ratios, and
impedance ratios.

> When a transmission line is terminated in an impedance other than its
> characteristic impedance, there will be both a forward wave and a
> reflected wave of such magnitude to resolve the conditions that must
> apply at the termination.

Irrelevant.

> The forward wave and the reflected wave sum at all points along the
> line having regard for their magnitudes and relative phase to produce
> a "standing wave". The Standing Wave Ratio (SWR or VSWR) is defined to
> mean the ratio of the maximum to the minimum of the magnitude of the
> standing wave voltage pattern along the line.

Is is also defined as a current ratio and an impedance ration.

> The SWR on a lossless line can be calculated knowing the complex
> characteristic impedance of the line and the complex load impedance.

What no waves, just impedences!! Now you are contidicting yourself.

> The SWR on the line does not depend in any way on some unrelated
> independent reference resistance as you suggest in your formula.

Read it again.

The R is the R of the thing at the end of the line.

The X is the X of the thing at the end of the line.

The X is the impedance of the line.

> You seem to be suggesting that your redefined SWR is a really good
> (obscure) way to talk about an impedance (independently of a
> transmission line) in terms of some standardised reference value, and
> you can throw away the fundamental meaning of SWR to support your
> SWR(50) concept. In your terms (independently of a transmission line),
> for instance, a Z of 60+j10 would be SWR(50)=1.299, and so would an
> infinite number of other Zs have SWR(50)=1.299... how is that of
> value. To know Z is 60+j10 is to know more than to know SWR(50)=1.299.

The equations given are general and can be derived from first priciples.

The Z in the equations is the Z of your reference, i.e. 50 for a 50
Ohm system.

SWR is *ALWAYS* relative to some reference impedance.

> Owen
> --

--
Jim Pennino

Remove .spam.sux to reply.

1215. Re: Hams of FCC's RID Aid Allied Effort in WW2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 15:22:26 UTC
From: k <spam@uce.gov>
Message-ID: <Ssd_e.2080$mg.1705@tornado.socal.rr.com>
Source record: 70013

Ok Hiram.

Jer

"J. Teske" <jdteske@comcast.net> wrote in message
news:0gehj1pijf4cfvvp6hgu72rqadvvlnmag8@4ax.com...
: On Mon, 26 Sep 2005 15:16:51 GMT, "k" <spam@uce.gov> wrote:
:
: >So, what does it mean, or would you have to kill me if you told me?
<G>
:
: I WOULD have to kill you if I told you. You have to know the secret
: handshake. :-)
:
: Jon
: >
: >Jer
: >
: >"J. Teske" <jdteske@comcast.net> wrote in message
: >news:982gj1hr87ahvbl001cpkstuttn754aa6c@4ax.com...
: >: On 25 Sep 2005 23:18:18 GMT, bg998@FreeNet.Carleton.CA (Martin
Potter)
: >: wrote:
: >:
: >: >
: >: >Tom Ring (news0002@taring.org) writes:
: >: >>
: >: >> I would say say, please keep it up, on or off topic. Thanks so
: >much for
: >: >> these pieces of history.
: >: >>
: >: >
: >: >
: >: >Hear, hear!!
: >: >
: >: >... Martin VE3OAT
: >: >ex-CSE (CANUKUS Eyes Only)
: >:
: >: Hey Martin, I know what that all means
: >:
: >: Jon W3JT, Retired NSA
: >: >
: >:
: >
:

1216. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 15:44:27 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dhbpcr$238$1@mail.specsol.com>
Source record: 70014

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> Jim,

> Perhaps there's some misunderstanding about location of the meter and
> what it is measuring. Let's try to clear it up.

> Would you please do us both a favour by answering the following simple
> question?

> There is a 50 ohm line feeding a 100 ohm antenna.

> There is an SWR meter located at the line-antenna junction.

What does this mean?

> The meter has a reading. Does the reading apply to SWR of the
> antenna, or does it apply to the SWR along the feedline?

The reading is the SWR at that point.

> Antenna or Feedline?
> ----
> Reg.

An SWR meter reads the SWR of the thing connected to its output port
with respect to the reference impedance the meter was designed for.

The SWR meter reads the SWR *AT THE POINT OF CONNECTION* of the
connected system.

Not the middle of the system, not the other end (if it has one)
of the system, but the input point.

If you measure a SWR (50 Ohms reference) of 2:1 for a black box,
what is in the box?

A. A 25 Ohm resistor.
B. A 100 Ohm resistor.
C. A cable spool of coax with some impedance at the end of it.
D. Could be any of the above.

In general there is no guarantee that the SWR at any point of a
transmission line will be equal to the SWR at any other point on a
transmission line other than for special cases.

What seems to have you terribly confused is that all the transmission
lines, tuners, antennas, connectors and whatevers become a *SYSTEM*
and the SWR at the input connector to the *SYSTEM* is not guaranteed
to be the same as the SWR at some arbitrary point inside the system.

When you measure the SWR of a line with a load on the end, you are measuring the SWR of the entire system relative to your reference, not the load.

--
Jim Pennino

Remove .spam.sux to reply.

1217. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 15:48:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhbpkj$a9n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70015

Cec, you have YOUR explanation and I have MY explanation.

Which is the most simple?

There is a bridge.

When the variable arm, the load, is 50 ohms the bridge is balanced and the meter indicates SWR = 1:1

When the variable arm is either 0 ohms or infinite ohms, the meter indicates SWR = infinity :1

What can be more simple than that? How it works can be visualised.

But the meter is ambiguous. It cannot distinguish between loads of 0 ohms and infinite ohms. Additional information is required.

This serious ambiguity also applies to your weird contraption. ;o)

Regards, Reg.

1218. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 15:56:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhbq2pbfl1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70016

Cec, I notice that you and others have begun to use my description of
"indicate" rather than "measure".

Reg.

1219. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 16:09:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhbqrq$df7$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70017

Jim, I'm sorry you are unable to answer the simple question "Feedline
or Antenna?".

Reg.

1220. antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 16:33:39 UTC
From: slow-z <michael.krull@sbcglobal.net>
Message-ID: <abb5c066f81188e8f3cea7b3a3f500c9@localhost.talkaboutradio.com>
Source record: 70061

Been off the bands about 15yrs, and want to get back on! have forgotten much. Can i feed a long wire antenna with a tuner that only has a unbalanced output.

1221. Re: Free space pathloss calcs and factor K

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 16:37:51 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <v39o03-f3v.ln1@p400bob.personal.cox.net>
Source record: 70018

Thank you all for your feedback/comment. So much for an easy answer!

<grin)

Bob Bob wrote:
>

1222. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 17:29:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhbvh6aoa1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 70019

Richard,

If's and But's are not required.

The antenna is just an arbitrary load.

Does the meter reading indicate SWR on the feedline (which is what is usually required), or does it not?

This is not a "catch question". It is not a troll.

"Antenna or Feedline?" please.

KISS

Reg.

==========

"Richard Fry" <rfry@adams.net> wrote in message news:43394485_3@newsfeed.slurp.net...
> "Reg Edwards" wrote:
> > There is a 50 ohm line feeding a 100 ohm antenna.
> > There is an SWR meter located at the line-antenna junction.
> > The meter has a reading. Does the reading apply to SWR of the
> > antenna, or does it apply to the SWR along the feedline?
> _____________
>
> It applies to the match of the RF network that follows the SWR meter to the
> impedance for which the SWR meter was calibrated.
>
> And if in your example the SWR meter has been calibrated for 50 ohms, and is
> moved to the input end of that line+antenna RF network, it will also have a
> reading -- which will be the same as when it was inserted at the
> antenna-line junction, less the round-trip RF attenuation of the
> transmission line (assuming that the transmission line is 50 +/- j0 ohms
> throughout its length).
>
> In fact it is a common practice to optimise the transmission line/antenna
> match of commercial FM and TV broadcast antenna systems by use of a variable
> transformer inserted at the antenna input, whose adjustment is made

by
> reference to the far-end reflection seen at the sending end of the
> transmission line, using a high-directivity reflectometer, or SWR
meter.
>
> The same physics applies to ham antenna systems and methods/means of
> measurement.
>
> RF
>
> Visit http://rfry.org for FM transmission system papers.
>
>
>
>
>
>
>

1223. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 17:50:19 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43398682_4@newsfeed.slurp.net>
Source record: 70020

"Reg Edwards"
>
> "Antenna or Feedline?" please.
> KISS

Antenna.

And a big smooch to you, too.

RF

1224. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 18:08:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <LUf_e.1019$Fi3.448@newssvr29.news.prodigy.net>
Source record: 70021

Reg Edwards wrote:
> Cec, you have YOUR explanation and I have MY explanation.

Mine is a lot simpler. The Heath HM-15 has two pickup elements.
If you install a Z0 resistor load at one end it "picks up" the forward
wave. If you install a Z0 resistor load at the other end it "picks up"
the reflected wave. The two pickup voltages are rectified and compared
through a calibration procedure.

The parts that came with the HM-15 kit in the 50s-60s included two
72 ohm resistors. RG-ll was very popular at the time. If one wanted
a 72 ohm SWR meter, one installed the 72 ohm resistors. If one wanted
a 50 ohm SWR meter, one installed the 50 ohm resistors. A switch could
be installed that switched between 50 ohms and 72 ohms calibration.

> This serious ambiguity also applies to your weird contraption. ;o)

Actually, the Heathkit design concept is easier to understand than
is the bridge explanation or the toroid-pickup/phasor-addition
explanation. The first SWR meter I built in the 50s, used two
lengths of insulated wire shoved under the braid of the coax.
It worked but, at the time, I had no idea why it worked. Heath's
little slotted line pickup device was pretty slick. I sometimes
see them for sale at hamfests.
--
73, Cecil http://www.qsl.net/w5dxp

1225. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 18:09:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6muij11sgp4h5hj9u39ndqfir0cocpvkf0@4ax.com>
Source record: 70022

On Tue, 27 Sep 2005 07:39:01 -0400, wood@itd.nrl.navy.mil (J. B. Wood) wrote:

>numerous papers with measured data on fractal design have been published
...
>I think it's too early to say whether or not fractal antennas will be....

Hi John,

Don't you see a bit of disconnect between these statements?

How long do you think it took Marconi to go from experimental antennas to science, to production? And this was from when they banged rocks together, not after a century of introspection on the subject.

To answer my question, and to show the perspective of failure for fractals:
At the age of 19 he was performing his first experiments with antenna and transmission of RF;
At the age of 22 he had his first patent for same;
At the age of 27 he transmitted across the Atlantic;
At the age of 35 he was awarded the Nobel Prize for all things considered.

Well, we won't go as far as the Nobel; after all, it requires some demonstration of a unique contribution to science. But on the other hand, "research" on fractal things are all expressed in the same breathless excitement of "discovery" and yet they've been circling the same arid landscape like vultures in search for carrion.

Let's simply look at the science stripped from these gushing claims, and the teary-eyed exultation that attends fractals. The simple dipole or monopole have a not to complex formula for the description of their drive point Z. Name one formula (that is not my own) that does so for fractal antennas. There is a very simple formula for correlating the resonance of a wire antenna frequency/length. Name one formula (that is not my own) that does so for fractal antennas.

I've read a lot of this tripe that endlessly re-discovers the Koch Triadic/Quadratic/.... Unless you've come across some remarkable treatise that reveals correlations that uniquely associates the fractal math with the technical outcome, then such fluff pieces are academic masturbation.

The golden glow on the horizon:
>the technology shows promise.
as sincere as it is, has no justifiable basis beyond the same emotion

stirred with the promise of snake-oil curing ____. This field has been tilled for a decade (cohen keeps inflating his resume to push that further back) and no new age has grown from that effort. As such, Marconi captured the world's imagination in less time, and we have the math to correlate the reality of that achievement. Clearly the sum of the 21st century researchers of fractal antennas do not equal the total of one 19th century Italian gentleman dabbler.

73's
Richard Clark, KB7QHC

1226. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 18:12:02 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhc30b$7ev$1@news.service.uci.edu>
Source record: 69876

Jim Higgins wrote:

> On Mon, 26 Sep 2005 11:51:06 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>Reg Edwards wrote:
>>
>>
>>>The symbol of Christianity is an instrument of torture.
>>>
>>>It's amazing it has so many adherents.
>>
>>Especially when they could have just as easily chosen a lion devouring a
>>man as their symbol. Blaming crucifixion on Christians is a little like
>>blaming Jews for the Holocaust. It neglects a lot of relevant history,
>>don't you think?
>
>
> Christians blaming the crucifixion on anyone is what I'd call stuck on
> stupid. Instead of blaming anyone, Christians should be looking for
> someone to thank. The crucifixion and following return from the dead
> is at the very core of Christianity. Without it it's arguable whether
> Christianity would exist. Those looking to place blame are simply
> ignorant of the major dogma on which their religion is based.

Who said anything about looking for someone to blame? Besides you, I mean.

1227. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 18:14:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <y_f_e.1022$Fi3.772@newssvr29.news.prodigy.net>
Source record: 70023

Reg Edwards wrote:

> Cec, I notice that you and others have begun to use my description of
> "indicate" rather than "measure".

What a meter movement "measures" is current. What a meter "indicates"
can be anything in the world depending upon the calibration scale.
--
73, Cecil http://www.qsl.net/w5dxp

1228. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 18:17:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <b1g_e.1025$Fi3.925@newssvr29.news.prodigy.net>
Source record: 70024

Reg Edwards wrote:
> "Antenna or Feedline?" please.

If the meter is calibrated for the feedline Z0, it will read
the SWR on the feedline.

If the meter is calibrated for the antenna Z0, it will read
the SWR on the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

1229. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 18:20:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <or2jj1pgqlqaqjm4oioabqo6lqv8n4vsoe@4ax.com>
Source record: 70025

On Tue, 27 Sep 2005 15:48:35 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>But the meter is ambiguous. It cannot distinguish between loads of 0
>ohms and infinite ohms. Additional information is required.

Hi Reggie,

Without recourse to that "additional information," explain how you
achieve the unambiguous by your method of probing lines (be they
parallel, coaxial, or waveguide).

In other words, your objection is a non sequitur, it is meaningless
because you need the same additional information and you cannot
demonstrate any measurable difference between the manifold methods of
coming to the same determination.

Of course, if you throw a spanner in the other guy's gear-box, you
might win the race.

73's
Richard Clark, KB7QHC

1230. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 18:53:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <404jj1111vbijsoj8h22342kito60p244p@4ax.com>
Source record: 69877

On Tue, 27 Sep 2005 17:29:10 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>If's and But's are not required.
>The antenna is just an arbitrary load.
>Does the meter reading indicate SWR on the feedline (which is what is
>usually required), or does it not?
>This is not a "catch question". It is not a troll.
No, of course it isn't (must be all those other posts then)
>"Antenna or Feedline?" please.
>KISS

Hi Reggie,

Ah yes! That "additional information" finally surfaces as a
requirement doesn't it?

SWR "on the feedline" is like dust thrown into the eyes of the rubes
before the elephant appears in front of them. Presumably, "on the
feedline" is akin to the ark holding a sacred artifact like the finger
of St. Heavybottom.

The traditional slotted line used for probe determination of SWR comes
with two connectors like that commonplace SWR meter (and the slotted
line probe connects to a - SWR METER! albeit, not the commonplace
variety, but odd how the tide of time has not yet altered the name to
TLI). And if we were to substitute the slotted line for commonplace
SWR (or t'other way 'round), both/either/each would face the same
issues and offer the same results. Imagine that, not a whit of
difference, except that the probes can add error through in-expert
use. Whoops! Same issues of how things can/do go wrong.

So, the ultimate question of the universe (yadda-yadda-yadda) is what
difference does having a transmission line between these two
connectors make on the outcome of what SWR exists AT the load
connector? A rhetorical difference! After-all, you would need
"extraordinarily more information" to express where the SWR resided,
wouldn't you? ;-)

Any artificial constraint you toss in as an objection exists for
yourself as well. I can see Kelvinator swinging his cane now. Did I
say lower 6th? They would probably hoot you down to upper 5th.

73's
Richard Clark, KB7QHC

1231. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 19:06:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhc57kpvv1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69878

> "Reg Edwards"
> >
> > "Antenna or Feedline?" please.
> > KISS
> ----------
>
> Antenna.
>
> And a big smooch to you, too.
>

Rich, thanks for the smooch.

But I'm afraid you are wrong. The meter correctly indicates SWR on the feedline when it is located at the antenna end of the line.

But don't worry too much about it. It seems you are in good company. So much for the technical education of radio engineers.

It all comes about because of so-called SWR meters being called SWR meters - which they are not. At least not when located at the transmitter end of transmission lines as they nearly always are.

When located adjacent to the transmitter they are TLI's. Transmitter Loading Indicators. And SWR has very little or nothing to do with it.

Reg.

1232. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 19:06:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhc57kpvv2@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69879

Cec, you can make the meter read anything you like just by twiddling
the calibration pot. Of what bloody use is that? !**?!!

Just answer the obvious question. No If's or But's

Reg.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:b1g_e.1025$Fi3.925@newssvr29.news.prodigy.net...
> Reg Edwards wrote:
> > "Antenna or Feedline?" please.
>

1233. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 19:09:16 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhc6d1$92h$1@news.service.uci.edu>
Source record: 69882

Jim Higgins wrote:

> On Tue, 27 Sep 2005 11:12:02 -0700, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>
>>Jim Higgins wrote:
>>
>>
>>>On Mon, 26 Sep 2005 11:51:06 -0700, Jim Kelley <jwkelley@nospam.edu>
>>>wrote:
>>>
>>>
>>>
>>>>Reg Edwards wrote:
>>>>
>>>>
>>>>
>>>>>The symbol of Christianity is an instrument of torture.
>>>>>
>>>>>It's amazing it has so many adherents.
>>>>
>>>>Especially when they could have just as easily chosen a lion devouring a
>>>>man as their symbol. Blaming crucifixion on Christians is a little like
>>>>blaming Jews for the Holocaust. It neglects a lot of relevant history,
>>>>don't you think?
>>>
>>>
>>>Christians blaming the crucifixion on anyone is what I'd call stuck on
>>>stupid. Instead of blaming anyone, Christians should be looking for
>>>someone to thank. The crucifixion and following return from the dead
>>>is at the very core of Christianity. Without it it's arguable whether
>>>Christianity would exist. Those looking to place blame are simply
>>>ignorant of the major dogma on which their religion is based.
>>
>>Who said anything about looking for someone to blame? Besides you, I mean.
>
>
> You ask who raised the concept of blame? It wasn't me. See above.
> I'll give you credit for not snipping it.

I'll give you credit for apparently not understanding what it says
above. It obviously laments the laying of blame - in this case, on
Christians and Jews. Your comment may apply to something, but certainly

not to anything I said. Thanks for your input though, Jim.

1234. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 19:13:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhc5kc$r1p$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69880

Rich, your abuse of the English language renders it impossible for me
or anybody else to make any sense of what you are waffling about.

Punchinello, G4FGQ

1235. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 19:22:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tm6jj1pvngd8gab0vjs1tac59m7o9ac88l@4ax.com>
Source record: 69881

On Tue, 27 Sep 2005 19:13:16 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Rich, your abuse of the English language renders it impossible for me
>or anybody else to make any sense of what you are waffling about.

Aw Reggie,

Are you using a prescription grade wine glass when you were trying to
read it? Or can we blame it on the grape? No ifs ands or buts now
because with each new post the question becomes more remote and harder
for you to answer.

73's
Richard Clark, KB7QHC

1236. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 20:05:08 UTC
From: richardharrison@webtv.net
Message-ID: <19159-4339A5F4-273@storefull-3252.bay.webtv.net>
Source record: 69883

Reg Edawds, G4FGQ wrote:
"R&B`s cavity magnetron was developed at Birmingham University in the midst of the air raids on that industrial city."

Prior to Randall & Boot, magnetrons were low-power devices, outclassed ny klystrons. R & B`s resonant-cavity magnetron, operating at 10 cm exuded 100x more power than previous magnetrons and allowed smaller hardware and imptoved image definition.. The 6 KW GEC manufactured version given to the U.S. in August 1940 was shipped by ordinary parcel post to arouse no suspicion of its importance. It has been called the most important shipment ever to arrive on U.S. shores.

The resonant-cavity magnetron was an awesome contribution to victory in WW-2 against both Germany and Japan. Their radar development lagged far behind.

My ship in WW-2 had only one spare part kept in the captain`s safe, the Raytheon resonant-cavity magnetron for our Raytheon navigational radar system. Fortunately, we never needed to replace it.

After WW-2, Rayrheon shifted production to their bew "Radar Range". The Japanese soon caught up with their ubiquitous microwave ovens. They were more motivated. Our houses were already equipped with oil, gas, and electric ranges aplenty. Everyone, it turned out, was ready for microwave too.

Klystrons were not washed up either. The most powerful generators ever built were klystrons. The speed detector used to ticket your car probably uses a laser. All radar isn`t pulsed radar. Radar altometers use separate transmitter and receiver antennas. They transmit an FM signal whose modulation frequency is changing at a certain rate. This is continuously compared with the modulation frequency of the received echo to tell how far away the reflection point is.

The television signal you watch off the air was probably generated by a large klystron.

Best regards, Richard Harrison, KB5WZI

1237. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 20:18:47 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4339a94f_3@newsfeed.slurp.net>
Source record: 69884

"Reg Edwards"
> But I'm afraid you are wrong. The meter correctly indicates
> SWR on the feedline when it is located at the antenna end
>of the line.

Remove the feedline, and connect the 100 ohm antenna through the SWR meter calibrated for 50 ohms, directly to the transmitter. The meter has a reading. The measurement will have the same value as before, neglecting any adjustment for having no line loss now. But there is no feedline, so how can there be any SWR on it, you write.

The fact that there is not enough transmission line length in the system for literal standing wave maxima and minima to develop on it does not mean that reflections do not exist in the output load system. It is the value of those reflections that determines the corresponding value of SWR. Reflections can be measured by appropriate instruments regardless of the length of line in the measured system, or even the existence of any transmission line at all.

The convention of the professional engineering community for many decades has been to convert incident and reflected waveform samples into the corresponding value of SWR, no matter if there is insufficient line length in the system for the corresponding maxima and minima to develop fully on it. It doesn't matter, electrically. Your constant diatribes stating that it does is a futile exercise.

Disable the SWR protection in your ham tx and key it to full power into an open or short. There is no transmission line where standing wave maxima and minima could exist, but your tx will burn up anyway.

Maybe save your response until tomorrow morning, when your Merlot buzz has worn off :)

RF

1238. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 20:41:25 UTC
From: richardharrison@webtv.net
Message-ID: <21565-4339AE75-966@storefull-3253.bay.webtv.net>
Source record: 69885

Teg, G4FGQ wrote:
"Err, no, the meter is telling what it sees at the point of measurement."

Yes, and that is a ratio depending on "rho", the reflection coefficient.

We know that rho equals:

the square root of reflected pwr / fwd pwr

And: VSWR = 1+rho / 1-rho

VSWR is a function of the reflection coefficient

You drive an automobile and glance at the speedometer. It is an electrical meter giving an indication proportional to vehicle speed.

You look at an SWR (TLI) meter giving an indication calibrated to be proportional to SWR.

Best regards, Richard Harrison, KB5WZI

1239. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 20:58:48 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4339b2af_3@newsfeed.slurp.net>
Source record: 69886

>> "Reg Edwards"
>> But I'm afraid you are wrong. The meter correctly indicates
>> SWR on the feedline when it is located at the antenna end
>>of the line.
> _____________

PS:

In this example the mismatch between the antenna and the line is the source of the reflection that results in system SWR. Convention is to state that the SWR belongs to the antenna, not the line -- although the added stress on components applies only to the line and tx, and not to the antenna.

An ideal SWR meter will read that antenna reflection to have the same value when installed at either end of the line, or anywhere along its length (assuming
a perfect 50 ohm line, and neglecting line loss).

RF

1240. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 21:06:36 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dhcc8s$b1$1@mail.specsol.com>
Source record: 69887

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> Jim, I'm sorry you are unable to answer the simple question "Feedline
> or Antenna?".
> ----
> Reg.

It appears you have no interest in understanding and simply wish to
throw out straw men, red herrings, and who knows what to complicate
a very simple concept.

--
Jim Pennino

Remove .spam.sux to reply.

1241. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 21:13:02 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <7tcjj1pibskpa8gkpba9tnvu1esikl3ed9@4ax.com>
Source record: 69888

On Tue, 27 Sep 2005 15:21:51 +0000 (UTC), jimp@specsol.spam.sux.com
wrote:

>Owen Duffy <owen@no.where> wrote:
>> On Tue, 27 Sep 2005 02:54:31 +0000 (UTC), jimp@specsol.spam.sux.com
>> wrote:
>
>> >Owen Duffy <owen@no.where> wrote:
>> >> On Tue, 27 Sep 2005 02:25:11 +0000 (UTC), jimp@specsol.spam.sux.com
>> >> wrote:
>> >
>> >
>> >> >SWR is nothing more than a dimensionless impedance ratio.
>
>> The fundamental definition of SWR flows from the behaviour and
>> properties of RF transmission lines.
>
>And power=EI. And it also equals I^2*R and E^2/R.
>
>SWR can be expressed in terms of power ratios, current ratios, and
>impedance ratios.
>
>> When a transmission line is terminated in an impedance other than its
>> characteristic impedance, there will be both a forward wave and a
>> reflected wave of such magnitude to resolve the conditions that must
>> apply at the termination.
>
>Irrelevant.
>
>> The forward wave and the reflected wave sum at all points along the
>> line having regard for their magnitudes and relative phase to produce
>> a "standing wave". The Standing Wave Ratio (SWR or VSWR) is defined to
>> mean the ratio of the maximum to the minimum of the magnitude of the
>> standing wave voltage pattern along the line.
>
>Is is also defined as a current ratio and an impedance ration.
>
>> The SWR on a lossless line can be calculated knowing the complex
>> characteristic impedance of the line and the complex load impedance.
>
>What no waves, just impedences!! Now you are contidicting yourself.
>
>> The SWR on the line does not depend in any way on some unrelated
>> independent reference resistance as you suggest in your formula.

>
>Read it again.
>
>The R is the R of the thing at the end of the line.
>
>The X is the X of the thing at the end of the line.
>
>The X is the impedance of the line.
>
>> You seem to be suggesting that your redefined SWR is a really good
>> (obscure) way to talk about an impedance (independently of a
>> transmission line) in terms of some standardised reference value, and
>> you can throw away the fundamental meaning of SWR to support your
>> SWR(50) concept. In your terms (independently of a transmission line),
>> for instance, a Z of 60+j10 would be SWR(50)=1.299, and so would an
>> infinite number of other Zs have SWR(50)=1.299... how is that of
>> value. To know Z is 60+j10 is to know more than to know SWR(50)=1.299.
>
>The equations given are general and can be derived from first priciples.
>
>The Z in the equations is the Z of your reference, i.e. 50 for a 50
>Ohm system.
>
>SWR is *ALWAYS* relative to some reference impedance.

Jim, your comments are full of inconsistencies (like pronumeral X
having two different meanings in the same formula, equations described
as "general" but which do not allow for a reactance component in your
"reference z" which is actually the characteristic impedance of the
line in the real world, equations derived from first principles and
you state the first principles are "irelevant").

In the absence of logic in your writing, I won't waste anymore time...
you have some deeply entrenched misconceptions and seem to have built
a large framework of simple views (like power=EI... a DC circuits
concept) to support the misconceptions.

Owen
--

1242. UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 21:44:43 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1127857483.866370.308610@z14g2000cwz.googlegroups.com>
Source record: 69889

It is said that a transmitted UWB pulse should not have any DC because of the transmitting antenna:

"Without getting into the details of the physical generation of UWB waveforms, it is sufficient to note in this regard that the transmitting antenna has the general effect of differentiating the time waveform presented to it. As a consequence the transmitted pulse does not have a DC (direct current) value-the integral of the waveform over its duration must equal zero."

(page 4,
http://www.antd.nist.gov/wctg/manet/NIST_UWB_Report_April03.pdf)

Would someone please explain that for me?

Thanks!

-- Harry

1243. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 21:52:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9aj_e.3180$KQ5.2163@newssvr12.news.prodigy.com>
Source record: 69890

Reg Edwards wrote:
> Cec, you can make the meter read anything you like just by twiddling
> the calibration pot. Of what bloody use is that? !**?!!
>
> Just answer the obvious question. No If's or But's

I did answer the question, Reg. You just didn't like the
answer.

Let's say we have an SWR meter at point 'x' in the following
diagram:

XMTR---1WL 50 ohm coax---x---1WL 75 ohm coax---100 ohm load

If the meter is calibrated for 50 ohms, it will indicate the
SWR on the 50 ohm coax, 2:1, on the source side of the meter.

If the meter is calibrated for 75 ohms, it will indicate the
SWR on the 75 ohm coax, 1.33:1, on the load side of the meter.

An SWR meter samples the magnitude and phase of the voltage,
samples the magnitude and phase of the current, assumes
it exists in the Z0 environment for which it was calibrated,
and accurately reports those results.

If the SWR meter is installed in a Z0 environment other than
that for which it was calibrated, the instrument is being
misused and the operator is at fault, not the instrument.
Any instrument can be misused.
--
73, Cecil http://www.qsl.net/w5dxp

1244. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 21:54:09 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <dhcf21$a72$1@mail.specsol.com>
Source record: 69891

Owen Duffy <owen@no.where> wrote:
> On Tue, 27 Sep 2005 15:21:51 +0000 (UTC), jimp@specsol.spam.sux.com
> wrote:

> >Owen Duffy <owen@no.where> wrote:
> >> On Tue, 27 Sep 2005 02:54:31 +0000 (UTC), jimp@specsol.spam.sux.com
> >> wrote:
> >>
> >> >Owen Duffy <owen@no.where> wrote:
> >> >> On Tue, 27 Sep 2005 02:25:11 +0000 (UTC), jimp@specsol.spam.sux.com
> >> >> wrote:
> >> >>
> >> >>
> >> >> >SWR is nothing more than a dimensionless impedance ratio.
> >>
> >> The fundamental definition of SWR flows from the behaviour and
> >> properties of RF transmission lines.
> >>
> >And power=EI. And it also equals I^2*R and E^2/R.
> >
> >SWR can be expressed in terms of power ratios, current ratios, and
> >impedance ratios.
> >
> >> When a transmission line is terminated in an impedance other than its
> >> characteristic impedance, there will be both a forward wave and a
> >> reflected wave of such magnitude to resolve the conditions that must
> >> apply at the termination.
> >>
> >Irrelevant.
> >
> >> The forward wave and the reflected wave sum at all points along the
> >> line having regard for their magnitudes and relative phase to produce
> >> a "standing wave". The Standing Wave Ratio (SWR or VSWR) is defined to
> >> mean the ratio of the maximum to the minimum of the magnitude of the
> >> standing wave voltage pattern along the line.
> >>
> >Is is also defined as a current ratio and an impedance ration.
> >
> >> The SWR on a lossless line can be calculated knowing the complex
> >> characteristic impedance of the line and the complex load impedance.
> >>
> >What no waves, just impedences!! Now you are contidicting yourself.
> >
> >> The SWR on the line does not depend in any way on some unrelated

> >> independent reference resistance as you suggest in your formula.
> >
> >Read it again.
> >
> >The R is the R of the thing at the end of the line.
> >
> >The X is the X of the thing at the end of the line.
> >
> >The X is the impedance of the line.
> >
> >> You seem to be suggesting that your redefined SWR is a really good
> >> (obscure) way to talk about an impedance (independently of a
> >> transmission line) in terms of some standardised reference value, and
> >> you can throw away the fundamental meaning of SWR to support your
> >> SWR(50) concept. In your terms (independently of a transmission line),
> >> for instance, a Z of 60+j10 would be SWR(50)=1.299, and so would an
> >> infinite number of other Zs have SWR(50)=1.299... how is that of
> >> value. To know Z is 60+j10 is to know more than to know SWR(50)=1.299.
> >
> >The equations given are general and can be derived from first priciples.
> >
> >The Z in the equations is the Z of your reference, i.e. 50 for a 50
> >Ohm system.
> >
> >SWR is *ALWAYS* relative to some reference impedance.

> Jim, your comments are full of inconsistencies (like pronumeral X
> having two different meanings in the same formula, equations described
> as "general" but which do not allow for a reactance component in your
> "reference z" which is actually the characteristic impedance of the
> line in the real world, equations derived from first principles and
> you state the first principles are "irelevant").

The last line is obviously a typo, it should be:

The Z is the impedance of the line.

Z is an impedance. An impedance is an absolute value.

The impedance of RG-8 coax, for example, is approximately 50 Ohms.

As I said, if you don't believe the equations, go get some resistors
and capacitors and do an experiment.

Until you do that you have no case.

> In the absence of logic in your writing, I won't waste anymore time...
> you have some deeply entrenched misconceptions and seem to have built
> a large framework of simple views (like power=EI... a DC circuits
> concept) to support the misconceptions.

Sigh, the power thing was a simple illustration of the fact that a
thing can often be represented a number of different ways.

How about acceleration is the first derivative of velocity and also
the second derivative of position? Do you like this example better?

> Owen
> --

--
Jim Pennino

Remove .spam.sux to reply.

1245. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 22:00:41 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <dij_e.3181$KQ5.873@newssvr12.news.prodigy.com>
Source record: 69892

Jim Kelley wrote:
> I'll give you credit for apparently not understanding what it says
> above. It obviously laments the laying of blame - in this case, on
> Christians and Jews.

The Romans were responsible for the crucifix. If the
Jews had been responsible, we would be wearing stones
around our necks.
--
73, Cecil http://www.qsl.net/w5dxp

1246. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 22:07:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <yoj_e.3182$KQ5.2052@newssvr12.news.prodigy.com>
Source record: 69893

Richard Harrison wrote:
> You drive an automobile and glance at the speedometer. It is an
> electrical meter giving an indication proportional to vehicle speed.

And if you think it is calibrated in km/hour when it is
actually calibrated in miles/hour, your speed reading will
be in error and you may get a ticket. This is akin to an
SWR meter being calibrated for the wrong Z0.
--
73, Cecil http://www.qsl.net/w5dxp

1247. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 22:14:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <nvj_e.3184$KQ5.265@newssvr12.news.prodigy.com>
Source record: 69894

Harry wrote:
> Would someone please explain that for me?

DC steady-state does not cause electrons to emit photons.
For RF photons to be emitted from a copper wire dipole, the
free electrons must be accelerated and decelerated. The DC
component cannot accomplish that feat.
--
73, Cecil http://www.qsl.net/w5dxp

1248. Manual for HP 1707B Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 22:19:02 UTC
From: Zen Navigator <dahall.aefb0@orange.net>
Message-ID: <1127859542.417746.144600@f14g2000cwb.googlegroups.com>
Source record: 69895

Hi,

As anyone a paper or electronic manual for the HP 1707B Hewlett Packard
Oscilloscope. I believe there is an A version, which I think would be
o.k.

Maybe know of a website where it can be downloaded, preferably for free

Will pay for any postage or materials if required.

dahall.aefb0@orange.net

Dave

M0GSM

1249. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 22:25:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <IFj_e.3185$KQ5.1068@newssvr12.news.prodigy.com>
Source record: 69896
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> The religious openly declare that their belief system is centered
> about the concept of G-d.

Here's an interesting study on the subject, it says:

http://www.timesonline.co.uk/article/0,,2-1798944,00.html

"RELIGIOUS belief can cause damage to a society, contributing towards high murder rates, abortion,
sexual promiscuity and suicide, according to research published today.

According to the study, belief in and worship of God are not only unnecessary for a healthy society
but may actually contribute to social problems.

The study counters the view of believers that religion is necessary to provide the moral and ethical
foundations of a healthy society."
--
73, Cecil http://www.qsl.net/w5dxp

1250. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 22:38:12 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhcipq$f7t$1@news.service.uci.edu>
Source record: 69897

Cecil Moore wrote:

> Harry wrote:
>
>> Would someone please explain that for me?
>
>
> DC steady-state does not cause electrons to emit photons.

Except in flashlights, apparently.

> For RF photons to be emitted from a copper wire dipole, the
> free electrons must be accelerated and decelerated. The DC
> component cannot accomplish that feat.

Quantum mechanics is completely unnecessary here, Cecil. I think
Faraday still provides the best explanation.

ac6xg

1251. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 22:51:52 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhcie8eis1@engnntp2.cig.mot.com>
Source record: 69900

Lightning generally goes wherever it decides. However, I have been advised that it generally dislikes sharp turns in conductors it happens to follow. Think of this as a "quarter turn" and as a result represents some inductance and therefore a little more impedance that the straight path. With these super high currents, that's a lot of magnetic field around the conductor. A look at the mag field and that is must be compressed inside the quarter turn, should help you to see this concept. With this in mind, the turn at the bottom of the tower can be where a coax (shield)ground can go, thus encouraging conduction to ground. Having the required tower ground at this point also 'encourages" the blast of current to take that path rather than the coax.

Remember, however, that

1- There will still be significant voltage on the coax, even if the strike goes down to the closer tower ground. This will be up to and can exceed any suppressor placed there.

2- This current can and does produce very large induced currents in ALL near-by conductors, so any and all nearby wires will sustain high voltages. (many a time I have heard a small click in the house which happens along with a near-by strike (not delayed) Flash simultaneous with click, then boom fraction of a second later.

3- Put an analog VOM on your antenna some time - either when rain is near or not. It can be on the ma ranges or volts, doesn't matter because of the way they are made. For a DVM only the ma range, but it's not as dramatic as the needle moving. Watch it gradually build up to some current (micro amps to ma) Then it will collapse or go negative when lightning strikes near by. Try connecting the meter across the antenna feed line or from either/both feedline sides to ground. Tx disconnected.

73, Mr. Wizzard, K9DCI

"Ham op" <hamop@comcast.net> wrote in message
news:3dmdnRMzg6RrC6XeRVn-jQ@comcast.com...
> rob wrote:
>
> > N7ZZT - Eric Oyen wrote:
> >
> >> wizard12342002@yahoo.com wrote:
> >>
> >>
> >>> Suppose I have an antenna some distance from the house. I run the
> >>> transmission line down from the antenna, bury the line, run it
> >>> underground to the house, place a lightning arrestor and ground just

> >>> outside the house, then run the transmission line up the side of the
> >>> house to the operating position on the second floor. Does anyone see a
> >>> problem with this arrangement? I can't imagine that a lightning would
> >>> "want" to travel back up toward the operating position when it has a
> >>> good ground (at the arrestor) closer to the antenna.
> >>>
> >>> -JJ
> >>
> >>
> >> you would be better to place a lightning arrestor at the tower (and
> >> ground
> >> the tower as well) and perhaps 1 or 2 along the coax to your house (all
> >> ground rodded). This method is referred to as "defense in depth"
> >>
> >>
> > .
> > Wouldn't this encourage lightning to go through your tower? (with the
> > risk of the concrete holding the tower up being cracked/ or worse)
> > I would think that putting earths a safe distance away from the tower's
> > support would be better ? (BTW I am not an expert!)
> > Not sure how they protect HT Pylons here in the UK - or even that they
> > are protected?
> >
> > Rob
>
> Here in the USA the National Electrical Code [NEC] requires that each
> leg of the tower be grounded at the tower approximately 1 meter from the
> tower. Each of the three ground rods shall be 2.5 meters long and
> connected together by a #6 AWG wire. The tower shall also be connected
> to the house 'earthing' connection at the service entrance.
>
> The coax from the tower to the house has a directly clamped, not
> soldered, connection from the braid to a ground rod [also 2.5 meters
> long] where it enters the house. [RF travels on the inside of the braid,
> so this connection does not impact RF performance.] This ground rod also
> connects to the 'earthing' connection.
>
> Your requirements in GB may be different.
>
> Lightning goes wherever lightning wants to go. After installing your
> tower disconnect everything from it when not in use; radios, coax cable,
> control cable, etc.
>

1252. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 23:10:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f8kjj1l9h18lggs8gh08sb3qmn9n76r96v@4ax.com>
Source record: 69898

On Tue, 27 Sep 2005 22:00:41 GMT, Cecil Moore <mycall@arrl.net> wrote:

>The Romans were responsible for the crucifix. If the
>Jews had been responsible, we would be wearing stones
>around our necks.
according to Lenny Bruce, if updated (ca. 1962 years later), it would
be Electric Chairs.

1253. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 23:27:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tpkjj1lvdte6ot3u36pl44k5r8iljeene6@4ax.com>
Source record: 69899

On 27 Sep 2005 14:44:43 -0700, "Harry" <harry0d88@aol.com> wrote:

>Would someone please explain that for me?

Hi Harry,

Because the media, space, does not have DC continuity, but acts rather more like an infinite succession of inductances and capacitances that transforms the original waveform (a) into (b) whose DC average is zip. It should be said that this is not due strictly to the antenna, but all paths within the complete communication circuit.

And to anticipate the yahoos who interject that yes there is an R component, its contribution (short of the ï¿½ther turning into a plasma) is of no consequence to the outcome you observe.

This is an answer, but it may fall quite short of an explanation.

73's
Richard Clark, KB7QHC

1254. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-27 23:48:31 UTC
From: jgboyles@aol.com
Message-ID: <1127864911.304163.64680@g43g2000cwa.googlegroups.com>
Source record: 69901

Jim Kelley wrote:
> Cecil Moore wrote:
>
> > Harry wrote:
> >
> >> Would someone please explain that for me?
> >
> >
> > DC steady-state does not cause electrons to emit photons.
>
> Except in flashlights, apparently.
>
> > For RF photons to be emitted from a copper wire dipole, the
> > free electrons must be accelerated and decelerated. The DC
> > component cannot accomplish that feat.
>
> Quantum mechanics is completely unnecessary here, Cecil. I think
> Faraday still provides the best explanation.
>
> ac6xg

With a ns pulse into a zero resistance conductor in free space all
energy should be radiated, so no DC component if you look at the input
power. However if you introduce the same pulse to a circuit that has
magnetic properties, i.e. a ferrite inductor as an example, there is
energy used to align the molecules in the material, not radiated, which
results in a DC component. In a flashlight, most of the energy is
heat, which will result in a big DC component with no radiation rf
wise.
That's really advanced stuff for a Ham Radio Newsgroup.
Gary N4AST

1255. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 01:11:20 UTC
From: Rockinghorse Winner <rockinghorse@anonymous.to>
Message-ID: <Y4m_e.513$Aw.7914@typhoon.sonic.net>
Source record: 69902

Ham op <hamop@comcast.net> writes:

>The reference to Cecil's web site is VG if you do not want to use a
>tuner. Cecil does a great job with tuning stubs. I use a tuner.

>Some have stated that multiples of 1/2 wavelength can produce RF in the
>shack. In 50+ years I have not experienced this. I may be JUST LUCKY!

>Do you plan on using a tuner?

Yes, I think I'll buy the MFJ QRP tuner.

--
R*Horse rwinner.blogspot.com

1256. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 01:55:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <HKm_e.7213$6e1.4112@newssvr14.news.prodigy.com>
Source record: 69903

Jim Kelley wrote:
> Quantum mechanics is completely unnecessary here, Cecil. I think
> Faraday still provides the best explanation.

In this particular case, quantum mechanics offers the
easiest-to-understand explanation. As Feynman put it:
"So now, I present to you the three basic actions, from
which all the phenomena of light (including RF) and
electrons arise.
-Action #1: A photon goes from place to place.
-Action #2: An electron goes from place to place.
-Action #3: An electron emits or absorbs a photon."

QED^2 :-)
--
73, Cecil http://www.qsl.net/w5dxp

1257. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 02:21:29 UTC
From: nm5k@wt.net
Message-ID: <1127874089.511506.215640@o13g2000cwo.googlegroups.com>
Source record: 69904

many a time I have heard a small click in the house which happens along
with a near-by strike (not delayed) Flash simultaneous with click,
then
boom fraction of a second later.

I' ve heard that arc many times at my ground connection
just outside the window. Sometimes with strikes that might
be a few blocks away. As far as the "click" one usually hears
with a super close strike, according to Gary Coffman, he claims
that is picked up directly by the auditory nerve, if I remember right.
Even deaf people can hear that "click". When my mast got struck,
which is like 10-15 ft away from me, the sound was like a lightbulb
being thrown on the ground outside my window. Of course, the
sonic boom is much louder...:/
MK

1258. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 02:28:34 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <vnvjj1lqv9t82s9b12mlrr9mcqqc7k9e37@4ax.com>
Source record: 69905
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 27 Sep 2005 22:25:44 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Matt Osborn wrote:
>> The religious openly declare that their belief system is centered
>> about the concept of G-d.
>
>Here's an interesting study on the subject, it says:
>
>http://www.timesonline.co.uk/article/0,,2-1798944,00.html
>
>"RELIGIOUS belief can cause damage to a society, contributing towards high murder rates,
abortion,
>sexual promiscuity and suicide, according to research published today.
>
>According to the study, belief in and worship of God are not only unnecessary for a
healthy society
>but may actually contribute to social problems.
>
>The study counters the view of believers that religion is necessary to provide the moral
and ethical
>foundations of a healthy society."

Cecil, if you want a few good laughs, Google the phrase "Flying
Spaghetti Monster" and read some of the listed links.

1259. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 03:08:17 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <FqydnQus7eCClKfeRVn-vA@adelphia.com>
Source record: 69906
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:
> On Sun, 25 Sep 2005 22:31:47 -0700, Cmdr Buzz Corey <me@that.moc>
> wrote:
>
>
>>>Just what we need - a bunch of testosterone-charge assholes punching
>>>out people that don't believe in their god. It's pretty obvious who
>>>the real jerk is in your story, and it isn't the professor.
>>>
>>
>>It's a joke son.
>
>
> Yes, and I've heard this joke told before by people who think they're
> being clever. Unfortunately, there are too many people that have this
> mentality in real life. They are the ones who say, "You're free, as
> long as you think the same way as me."

There are a number of people who do not think that that is a joke, they
think that it is a parable.

- Mike KB3EIA -

1260. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 03:09:32 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <MPn_e.328806$5N3.311019@bgtnsc05-news.ops.worldnet.att.net>
Source record: 69907

Harry,

Forget all the nonsense about photons, continuity of space, and other blather. This is simply a matter of mathematics.

In general the initial waveform will consist of a constant DC level and a number of AC components. Any DC component in the original pulse is lost when the pulse is differentiated by the transmitting antenna, leaving only the differentiated AC components. Therefore the integral of the differentiated waveform has a zero DC value. Of course one could always add in a constant to the integrated result, but that would not have much physical meaning in the context under discussion.

73,
Gene
W4SZ

Harry wrote:
> It is said that a transmitted UWB pulse should not have any DC because
> of the transmitting antenna:
>
>
>
> "Without getting into the details of the physical generation of UWB
> waveforms, it is sufficient to note in this regard that the
> transmitting antenna has the general effect of differentiating the time
> waveform presented to it. As a consequence the transmitted pulse does
> not have a DC (direct current) value-the integral of the waveform
> over its duration must equal zero."
>
> (page 4,
> http://www.antd.nist.gov/wctg/manet/NIST_UWB_Report_April03.pdf)
>
> Would someone please explain that for me?
>
> Thanks!
>
> -- Harry
>

1261. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 04:05:56 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <gg5kj1h1vjnv8vlalesdhiocou62keki9l@4ax.com>
Source record: 69908

On Wed, 28 Sep 2005 01:11:20 GMT, Rockinghorse Winner
<rockinghorse@anonymous.to> wrote:

>Ham op <hamop@comcast.net> writes:
>
>>The reference to Cecil's web site is VG if you do not want to use a
>>tuner. Cecil does a great job with tuning stubs. I use a tuner.
>
>>Some have stated that multiples of 1/2 wavelength can produce RF in the
>>shack. In 50+ years I have not experienced this. I may be JUST LUCKY!
>
>>Do you plan on using a tuner?
>
>
>Yes, I think I'll buy the MFJ QRP tuner.

The instruction book I got with my mfj 989c tuner has a section on
ladder line lengths to gravitate to, or avoid, depending on band. It
can be downloaded free from the mfj web site.

bob
k5qwg

1262. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 04:07:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhd4tp$23b$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69909

There is no mystery about the 'required additional information'.

The nearest the so-called SWR meter ever gets to measuring anything is the "magnitude of the reflection coefficient", MRC, which arises due to the impedance of whatever is presented to the meter's output terminals. (Recall, this impedance is the 4th variable arm of the meter's RF resistance bridge.)

This impedance can have an angle anywhere between 90 and -90 degrees. And the MRC can have an angle in any of the 4 quadrants, ie., anywhere between 0 and 360 degrees.

But the meter is capable of indicating ONLY the MRC. All the angle information is lost and gone forever. This is equivalent to losing information about the location along the line of the peaks and troughs in the standing wave. That is, of course, if a long line extending back from the input of the meter to the transmitter actually exists.

Now, if the line with standing wave exists, the magnitude of the SWR can be calculated from -

SWR = (1 + MRC) / (1 - MRC)

or the meter scale can be calibrated in terms of SWR.

It is frequently thought the SWR can be used to calculate the power lost in the line. But, particularly when the the line is less than 1/4-wavelength long, this is not so. It requires the location of peaks and troughs to be known - which they are not.

It is also thought that by rearranging the equation it is possible to calculate the reflection coefficient from the indicated SWR. Wrong again - can't be done, and in any case the reflection coefficient is useless without an angle.

So the indicated SWR is not of much use except to provide a topic of conversation. On the other hand, just by recalibrating the meter scale, you can have a valuable, indispensible TLI.

By the way, I hear Californian wine makers have been hijacking the names of French grape-growing districts and have been obliged to re-calibrate their bottles. Ah well, back to the Chilian stuff.

Reg.

1263. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 04:23:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <196kj19n7tkhbgjtior3sdefahom8rn1n4@4ax.com>
Source record: 69910

On Wed, 28 Sep 2005 04:07:21 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>There is no mystery about the 'required additional information'.

Hi Reg,

Of course, no one thought so except you - until now, and you still
have nothing to offer that distinguishes the probe method from the
common SWR meter available to every CB operator.

>By the way, I hear Californian wine makers have been hijacking the
>names of French grape-growing districts

Boy, are you late in taking in your newspaper. This has been going on
since the American vineyards saved the French lines from a devastating
rust blight decades ago. There is no original French line that has
not been re-planted from American root cuttings for half a century or
more after the Germans tilled their soil with Stukas.

73's
Richard Clark, KB7QHC

1264. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 04:36:15 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6f49f$433a1dec$97d56a13$23945@ALLTEL.NET>
Source record: 69911
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

The conclusions he draws are a convolution of logic.

1. The US is a religious country.
2. The US has a high murder rate
3. The US has a high rate of VD, drug use, and aids.

He concludes that statements 2 and 3 are caused by statement 1.

Utter nonsense, at the risk of upsetting liberals I would suggest that 2 and
3 can can more easily be tied to minorities than religion.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:IFj_e.3185$KQ5.1068@newssvr12.news.prodigy.com...
> Matt Osborn wrote:
> > The religious openly declare that their belief system is centered
> > about the concept of G-d.
>
> Here's an interesting study on the subject, it says:
>
> http://www.timesonline.co.uk/article/0,,2-1798944,00.html
>
> "RELIGIOUS belief can cause damage to a society, contributing towards high
murder rates, abortion,
> sexual promiscuity and suicide, according to research published today.
>
> According to the study, belief in and worship of God are not only
unnecessary for a healthy society
> but may actually contribute to social problems.
>
> The study counters the view of believers that religion is necessary to
provide the moral and ethical
> foundations of a healthy society."
> --
> 73, Cecil http://www.qsl.net/w5dxp

1265. Re: Free tv for only 1 euro

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 05:33:24 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <EWp_e.23701$ib1.21706@tornado.ohiordc.rr.com>
Source record: 69912

Not interested...go spam somewhere else!

"Christopher O'Callaghan" <d.ocallaghan@iolfree.ie> wrote in message
news:dh73mgmoo1@reader01.news.esat.net...
> Might i recommend this to you. Ebay item number 5297402959
>
>
> 1 euro for tv on your computer.Its very good and thought you might be
> interested.
>
> All the best
>
> Chris
>
>
>

1266. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 07:13:32 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1127891612.179165.113960@g47g2000cwa.googlegroups.com>
Source record: 69913

What does it mean by "when the pulse is *differentiated* by the
transmitting antenna" ?

Can I say that because an antenna can be modeled as a series of
inductors and capacitors like a transmission line, the DC part of the
pulse won't radiate from the antenna?

-- Harry

Gene Fuller wrote:
> Harry,
>
> Forget all the nonsense about photons, continuity of space, and other
> blather. This is simply a matter of mathematics.
>
> In general the initial waveform will consist of a constant DC level and
> a number of AC components. Any DC component in the original pulse is
> lost when the pulse is differentiated by the transmitting antenna,
> leaving only the differentiated AC components. Therefore the integral of
> the differentiated waveform has a zero DC value. Of course one could
> always add in a constant to the integrated result, but that would not
> have much physical meaning in the context under discussion.
>
> 73,
> Gene
> W4SZ
>
> Harry wrote:
> > It is said that a transmitted UWB pulse should not have any DC because
> > of the transmitting antenna:
> >
> >
> >
> > "Without getting into the details of the physical generation of UWB
> > waveforms, it is sufficient to note in this regard that the
> > transmitting antenna has the general effect of differentiating the time
> > waveform presented to it. As a consequence the transmitted pulse does
> > not have a DC (direct current) value-the integral of the waveform
> > over its duration must equal zero."
> >
> > (page 4,
> > http://www.antd.nist.gov/wctg/manet/NIST_UWB_Report_April03.pdf)
> >
> > Would someone please explain that for me?
> >

> > Thanks!
> >
> > -- Harry
> >

1267. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 08:05:30 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <bLednVogSdlW06feRVn-ug@comcast.com>
Source record: 69914
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

kashe@sonic.net wrote:

>>>Not to mention Hitler.
>>
>>And we have a Godwin, all...
>
>
> Dumb shit -- the reference is apropos in the midst of a
> discussion of mass murderers. You lose.

Discussion of mass murderers who were allegedly atheists. Reductio ad
Hitlerum.

And also Guy's corollary, asshole.

>>Btw, Hitler, if you must bring him up, was a Christian.

1268. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 11:39:44 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <Qs-dnSliAYYUH6feRVn-iQ@comcast.com>
Source record: 69915

Another bit of good advice. Run your coax down the tower on the INSIDE
of the tower [in the space created by the three legs].

Steve Nosko wrote:
> Lightning generally goes wherever it decides. However, I have been advised
> that it generally dislikes sharp turns in conductors it happens to follow.
> Think of this as a "quarter turn" and as a result represents some inductance
> and therefore a little more impedance that the straight path. With these
> super high currents, that's a lot of magnetic field around the conductor. A
> look at the mag field and that is must be compressed inside the quarter
> turn, should help you to see this concept. With this in mind, the turn at
> the bottom of the tower can be where a coax (shield)ground can go, thus
> encouraging conduction to ground. Having the required tower ground at this
> point also 'encourages" the blast of current to take that path rather than
> the coax.
>
>
>
> Remember, however, that
>
> 1- There will still be significant voltage on the coax, even if the strike
> goes down to the closer tower ground. This will be up to and can exceed any
> suppressor placed there.
>
>
>
> 2- This current can and does produce very large induced currents in ALL
> near-by conductors, so any and all nearby wires will sustain high voltages.
> (many a time I have heard a small click in the house which happens along
> with a near-by strike (not delayed) Flash simultaneous with click, then
> boom fraction of a second later.
>
>
>
> 3- Put an analog VOM on your antenna some time - either when rain is near or
> not. It can be on the ma ranges or volts, doesn't matter because of the way
> they are made. For a DVM only the ma range, but it's not as dramatic as the
> needle moving. Watch it gradually build up to some current (micro amps to
> ma) Then it will collapse or go negative when lightning strikes near by.
> Try connecting the meter across the antenna feed line or from either/both
> feedline sides to ground. Tx disconnected.
>
>
>

>
>
> 73, Mr. Wizzard, K9DCI
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:3dmdnRMzg6RrC6XeRVn-jQ@comcast.com...
>
>>rob wrote:
>>
>>
>>>N7ZZT - Eric Oyen wrote:
>>>
>>>
>>>>wizard12342002@yahoo.com wrote:
>>>>
>>>>
>>>>
>>>>>Suppose I have an antenna some distance from the house. I run the
>>>>>transmission line down from the antenna, bury the line, run it
>>>>>underground to the house, place a lightning arrestor and ground just
>>>>>outside the house, then run the transmission line up the side of the
>>>>>house to the operating position on the second floor. Does anyone see a
>>>>>problem with this arrangement? I can't imagine that a lightning would
>>>>>"want" to travel back up toward the operating position when it has a
>>>>>good ground (at the arrestor) closer to the antenna.
>>>>>
>>>>>-JJ
>>>>
>>>>
>>>>you would be better to place a lightning arrestor at the tower (and
>>>>ground
>>>>the tower as well) and perhaps 1 or 2 along the coax to your house (all
>>>>ground rodded). This method is referred to as "defense in depth"
>>>
>>>
>>>.
>>>Wouldn't this encourage lightning to go through your tower? (with the
>>>risk of the concrete holding the tower up being cracked/ or worse)
>>>I would think that putting earths a safe distance away from the tower's
>>>support would be better ? (BTW I am not an expert!)
>>>Not sure how they protect HT Pylons here in the UK - or even that they
>>>are protected?
>>>
>>>Rob
>>
>>Here in the USA the National Electrical Code [NEC] requires that each
>>leg of the tower be grounded at the tower approximately 1 meter from the
>>tower. Each of the three ground rods shall be 2.5 meters long and
>>connected together by a #6 AWG wire. The tower shall also be connected
>>to the house 'earthing' connection at the service entrance.

>>
>>The coax from the tower to the house has a directly clamped, not
>>soldered, connection from the braid to a ground rod [also 2.5 meters
>>long] where it enters the house. [RF travels on the inside of the braid,
>>so this connection does not impact RF performance.] This ground rod also
>>connects to the 'earthing' connection.
>>
>>Your requirements in GB may be different.
>>
>>Lightning goes wherever lightning wants to go. After installing your
>>tower disconnect everything from it when not in use; radios, coax cable,
>>control cable, etc.
>>
>
>
>

1269. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 12:03:37 UTC
From: Dave <noone@nowhere.com>
Message-ID: <LNidndLMo8wCG6feRVn-2g@crocker.com>
Source record: 69916

and what is that really supposed to do?

"Ham op" <hamop@comcast.net> wrote in message
news:Qs-dnSliAYYUH6feRVn-iQ@comcast.com...
> Another bit of good advice. Run your coax down the tower on the INSIDE of
> the tower [in the space created by the three legs].
>
> Steve Nosko wrote:
>> Lightning generally goes wherever it decides. However, I have been
>> advised
>> that it generally dislikes sharp turns in conductors it happens to
>> follow.
>> Think of this as a "quarter turn" and as a result represents some
>> inductance
>> and therefore a little more impedance that the straight path. With these
>> super high currents, that's a lot of magnetic field around the conductor.
>> A
>> look at the mag field and that is must be compressed inside the quarter
>> turn, should help you to see this concept. With this in mind, the turn
>> at
>> the bottom of the tower can be where a coax (shield)ground can go, thus
>> encouraging conduction to ground. Having the required tower ground at
>> this
>> point also 'encourages" the blast of current to take that path rather
>> than
>> the coax.
>>
>>
>>
>> Remember, however, that
>>
>> 1- There will still be significant voltage on the coax, even if the
>> strike
>> goes down to the closer tower ground. This will be up to and can exceed
>> any
>> suppressor placed there.
>>
>>
>>
>> 2- This current can and does produce very large induced currents in ALL
>> near-by conductors, so any and all nearby wires will sustain high
>> voltages.
>> (many a time I have heard a small click in the house which happens along
>> with a near-by strike (not delayed) Flash simultaneous with click, then

>> boom fraction of a second later.
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>>
>>
>> 3- Put an analog VOM on your antenna some time - either when rain is near
>> or
>> not. It can be on the ma ranges or volts, doesn't matter because of the
>> way
>> they are made. For a DVM only the ma range, but it's not as dramatic as
>> the
>> needle moving. Watch it gradually build up to some current (micro amps
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>> ma) Then it will collapse or go negative when lightning strikes near by.
>> Try connecting the meter across the antenna feed line or from either/both
>> feedline sides to ground. Tx disconnected.
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>>
>>
>>
>>
>> 73, Mr. Wizzard, K9DCI
>>
>> "Ham op" <hamop@comcast.net> wrote in message
>> news:3dmdnRMzg6RrC6XeRVn-jQ@comcast.com...
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>>>rob wrote:
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>>>>N7ZZT - Eric Oyen wrote:
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>>>>
>>>>>wizard12342002@yahoo.com wrote:
>>>>>
>>>>>
>>>>>
>>>>>>Suppose I have an antenna some distance from the house. I run the
>>>>>>transmission line down from the antenna, bury the line, run it
>>>>>>underground to the house, place a lightning arrestor and ground just
>>>>>>outside the house, then run the transmission line up the side of the
>>>>>>house to the operating position on the second floor. Does anyone see a
>>>>>>problem with this arrangement? I can't imagine that a lightning would
>>>>>>"want" to travel back up toward the operating position when it has a
>>>>>>good ground (at the arrestor) closer to the antenna.
>>>>>>
>>>>>>-JJ
>>>>>
>>>>>
>>>>>you would be better to place a lightning arrestor at the tower (and
>>>>>ground
>>>>>the tower as well) and perhaps 1 or 2 along the coax to your house (all

>>>>>ground rodded). This method is referred to as "defense in depth"
>>>>
>>>>
>>>>.
>>>>Wouldn't this encourage lightning to go through your tower? (with the
>>>>risk of the concrete holding the tower up being cracked/ or worse)
>>>>I would think that putting earths a safe distance away from the tower's
>>>>support would be better ? (BTW I am not an expert!)
>>>>Not sure how they protect HT Pylons here in the UK - or even that they
>>>>are protected?
>>>>
>>>>Rob
>>>
>>>Here in the USA the National Electrical Code [NEC] requires that each
>>>leg of the tower be grounded at the tower approximately 1 meter from the
>>>tower. Each of the three ground rods shall be 2.5 meters long and
>>>connected together by a #6 AWG wire. The tower shall also be connected
>>>to the house 'earthing' connection at the service entrance.
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>>>The coax from the tower to the house has a directly clamped, not
>>>soldered, connection from the braid to a ground rod [also 2.5 meters
>>>long] where it enters the house. [RF travels on the inside of the braid,
>>>so this connection does not impact RF performance.] This ground rod also
>>>connects to the 'earthing' connection.
>>>
>>>Your requirements in GB may be different.
>>>
>>>Lightning goes wherever lightning wants to go. After installing your
>>>tower disconnect everything from it when not in use; radios, coax cable,
>>>control cable, etc.
>>>
>>
>>
>>
>

1270. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 12:07:05 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-2809050807210001@jbw-mac.itd.nrl.navy.mil>
Source record: 69917

In article <6muij11sgp4h5hj9u39ndqfir0cocpvkf0@4ax.com>, Richard Clark <kb7qhc@comcast.net> wrote:

> Hi John,
>
> Don't you see a bit of disconnect between these statements?
>
> How long do you think it took Marconi to go from experimental antennas
> to science, to production? And this was from when they banged rocks
> together, not after a century of introspection on the subject.
>
> To answer my question, and to show the perspective of failure for
> fractals:
> At the age of 19 he was performing his first experiments with antenna
> and transmission of RF;
> At the age of 22 he had his first patent for same;
> At the age of 27 he transmitted across the Atlantic;
> At the age of 35 he was awarded the Nobel Prize for all things
> considered.
>

I don't see the point here. Marconi was dealing with rather elementary (and physically large) wire structures and did not have to generally concern himself with design issues such as antenna gain/radiation pattern, efficiency, driving point impedance, size, weight, etc. Back in Marconi's time it might have gone down like this: Try it and see if it works. Wow, it works! Now if we could time-travel to that era we could ask: Could we tweak the antenna for higher gain? Is the transmit antenna optimally matched to our spark-gap transmitter? Gosh I don't know. What's antenna gain?

Packing an antenna with required performance, for example, into a cell phone is not as simple as it sounds. I don't see any reason to get in a dither over a particular antenna type if its performance is well documented and its theoretical basis is in concert with (does not violate) electromagnetic theory. Granted, I do see a heck of a lot more papers on patch antennas than I do fractal types but so what? I don't ever remember seeing any papers on E/H or crossed-field antennas in any IEEE pub nor do I ever expect to. I'm also very leery of antenna performance claims and specious explanations provided by websites such as www.antennex.com even though a lot of their contributors are our Canadian ham brothers. An amateur radio license does not make one an antenna engineer. The ham may be a prolific inventor/tinkerer, perhaps with some applicable technical knowledge that facilitates him/her "stumbling" upon a great antenna design. But he/she is not an antenna/electronics/electrical engineer

(unless they have pursued that course of study). Sincerely,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

1271. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 13:03:11 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhe4af$15da$1@f04n12.cac.psu.edu>
Source record: 69918
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

N2EY@AOL.COM wrote:
> Mike Coslo wrote:
>
>
>>>"Pardon me while I slip out of these wet clothes
>>>and into a dry
>>>martini." - Groucho (or was it Bugs Bunny?)
>
>
> I think it was Groucho
>
>> What happened to all the old Bugs Bunny cartoons anyway?
>>
>
> Warner Bros. has them safely tucked away. Some that were made in the
> 1940s are not shown anymore because they contain parodies and
> stereotypes now considered racist.
>
> --
>
> I think you were asking about Foghorn Leghorn...
>
> "Nice girl, but about as sharp as a sack o' wet mice"
>
> "DAWG! I say, dawg, you look like two miles o' bad road!"
>
> "That widder hen reminds me of the road from Fort Worth to Dallas - no
> curves"
>
> "No, I better not look - I just might be in there"
>
> "That dawg reminds me of Paul Revere's ride - a little light in the
> belfry.."

Son, I SAY, Son! I ain't no chicken! Now that over there, THAT's a
chicken!.........

Actually, Ol' Foghorn is probably not the problem. There are a number
of old WB cartoons that have some rather strong stereotype of the folks
we were fighting during WWII (the big one) Considering that they are now
our allies, there might be a little sensitivity thing going on.

Personally, I think they should be shown, especially when introduced in the proper context. They are of historical value, and in the context of the times, were understandable.

Oh - and they were darn funny too!

- Mike KB3EIA -

1272. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 13:09:55 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <433A95E1.9E558364@earthlink.net>
Source record: 69919
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael Coslo wrote:
>
> N2EY@AOL.COM wrote:
> >
> > Warner Bros. has them safely tucked away. Some that were made in the
> > 1940s are not shown anymore because they contain parodies and
> > stereotypes now considered racist.
> >
> > --
> >
> > I think you were asking about Foghorn Leghorn...
> >
> > "Nice girl, but about as sharp as a sack o' wet mice"
> >
> > "DAWG! I say, dawg, you look like two miles o' bad road!"
> >
> > "That widder hen reminds me of the road from Fort Worth to Dallas - no
> > curves"
> >
> > "No, I better not look - I just might be in there"
> >
> > "That dawg reminds me of Paul Revere's ride - a little light in the
> > belfry.."
>
> Son, I SAY, Son! I ain't no chicken! Now that over there, THAT's a
> chicken!.........
>
> Actually, Ol' Foghorn is probably not the problem. There are a number
> of old WB cartoons that have some rather strong stereotype of the folks
> we were fighting during WWII (the big one) Considering that they are now
> our allies, there might be a little sensitivity thing going on.
>
> Personally, I think they should be shown, especially when introduced in
> the proper context. They are of historical value, and in the context of
> the times, were understandable.
>
> Oh - and they were darn funny too!
>
> - Mike KB3EIA -

I used this for my sig file for a while: "I say, the boy is so stupid
that he tried to make a back up copy of his hard drive on the Xerox
machine!" It took a couple months before someone asked if it was

supposed to be Foghorn. :(Talk about big gaps in the modern
educational system!
--
?

Michael A. Terrell
Central Florida

1273. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 13:10:11 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhe4ni$1dq8$1@f04n12.cac.psu.edu>
Source record: 69920
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:

> Matt Osborn wrote:
>
>> The religious openly declare that their belief system is centered
>> about the concept of G-d.
>
>
> Here's an interesting study on the subject, it says:
>
> http://www.timesonline.co.uk/article/0,,2-1798944,00.html
>
> "RELIGIOUS belief can cause damage to a society, contributing towards
> high murder rates, abortion, sexual promiscuity and suicide, according
> to research published today.

I wouldn't doubt it. The stronger the religion, the worse the evils
have to be. They are partners. One must have the other.

There was a series a few years ago, called "The Pagan Invasion". It was
broadcast on one of the national Religion channels. I used to watch it
because there was some pretty decent 3-D animation in it. (for the time)
But when you saw what those folk believed in, it was downright scary.

If those folk were to come into power, there is no doubt that the Salem
Witchcraft trials would be a role model for government.

> According to the study, belief in and worship of God are not only
> unnecessary for a healthy society but may actually contribute to social
> problems.

Well, its a pretty good thing if you happen to be worshiping the same
God.....

> The study counters the view of believers that religion is necessary to
> provide the moral and ethical foundations of a healthy society."

I cudda toldya that! ;^)

- Mike KB3EIA -

1274. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 13:21:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhe5cb$539$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69921
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

```
> > Personally, I think they should be shown, especially when
introduced in
> > the proper context. They are of historical value, and in the
context of
> > the times, were understandable.
> >
==================================

Censorship appears to be in action.

Who is the censor?

==================================
```

1275. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 13:34:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhe651lbr1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69922

Rich, I couldn't care two hoots about fractal antennas.

But it's a pleasure to read you when you set your mind to writing in
plain English.

Keep it up!

Reg.

1276. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 13:36:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhe691$7a7$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69923

```
> What's antenna gain?
============================
It's whatever the writer wishes it to be.
```

1277. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 14:11:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <uwx_e.1294$rl1.1292@newssvr27.news.prodigy.net>
Source record: 69924
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> Maybe we should rebuild New Orleans in England, it would balance the
> scales.

We indeed should rebuild New Orleans somewhere that is
not below sea level.
--
73, Cecil http://www.qsl.net/w5dxp

1278. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 14:14:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <vzx_e.1297$rl1.264@newssvr27.news.prodigy.net>
Source record: 69925

Bob Miller wrote:
> The instruction book I got with my mfj 989c tuner has a section on
> ladder line lengths to gravitate to, or avoid, depending on band. It
> can be downloaded free from the mfj web site.

Hopefully, the lengths to avoid are associated with specific
loads. Avoiding 1/4WL of ladder-line when feeding a 1/2WL
dipole may be good advice but 1/4WL of ladder-line is ideal
for feeding a one wavelength dipole.
--
73, Cecil http://www.qsl.net/w5dxp

1279. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 14:23:18 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <qHx_e.1302$rl1.336@newssvr27.news.prodigy.net>
Source record: 69926

Reg Edwards wrote:
> It is frequently thought the SWR can be used to calculate the power
> lost in the line. But, particularly when the the line is less than
> 1/4-wavelength long, this is not so. It requires the location of peaks
> and troughs to be known - which they are not.

In my no-tuner system of tuning, the peaks and troughs are known.
The purely resistive current maximum point is always located at
the balun/choke.
--
73, Cecil http://www.qsl.net/w5dxp

1280. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 14:31:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <nPx_e.1303$rl1.355@newssvr27.news.prodigy.net>
Source record: 69927

Richard Clark wrote:
> Boy, are you late in taking in your newspaper. This has been going on
> since the American vineyards saved the French lines from a devastating
> rust blight decades ago. There is no original French line that has
> not been re-planted from American root cuttings for half a century or
> more after the Germans tilled their soil with Stukas.

A lot of those American wine-making families had French roots. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1281. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 14:34:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <XRx_e.1305$rl1.973@newssvr27.news.prodigy.net>
Source record: 69928
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:

> 1. The US is a religious country.
> 2. The US has a high murder rate
> 3. The US has a high rate of VD, drug use, and aids.
>
> He concludes that statements 2 and 3 are caused by statement 1.

If I was religious enough to believe that God would forgive
me of murder, I might have done the deed myself. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1282. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 14:36:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <MTx_e.1308$rl1.833@newssvr27.news.prodigy.net>
Source record: 69929

Harry wrote:
> What does it mean by "when the pulse is *differentiated* by the
> transmitting antenna" ?

It means that steady-state DC is incapable of generating photons.
--
73, Cecil http://www.qsl.net/w5dxp

1283. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 15:02:31 UTC
From: richardharrison@webtv.net
Message-ID: <16282-433AB087-21@storefull-3254.bay.webtv.net>
Source record: 69930

Dave wrote:
"And what is that really supposed to do?"

"That" may be the suggestion to run the coax inside the tower or strapped to a leg.

Lightning is a transient electric current which follows the path of least impedancee. A conductive tower has more cross section and therefore less inductance per unit length than a coax cable. When the cable is in close proximity with the conductive tower, it is likely the lightning will prefer the tower to the cable for a path to earth. If the tower is wood or plastic, run the coax inside steel conduit.

The tower should better support the lightning than the coax.

Another good suggestion was to ground each leg of the tower, 3 or 4 usually, to its own substantial ground rod. This lowers impedance of the earth connection. The heavy cables connecting the rods should be run outside the concrete block used as a tower base to bypass lightning current around the concrete which never completely dries. Its contained moisture can form steam from an enormous electric current blasting the block asunder.

Best regards, Richard Harrison, KB5WZI

1284. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 15:42:17 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhedkp$1fr8$1@f04n12.cac.psu.edu>
Source record: 69931
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Reg Edwards wrote:

>>> Personally, I think they should be shown, especially when
>
> introduced in
>
>>>the proper context. They are of historical value, and in the
>
> context of
>
>>>the times, were understandable.
>>>
>
> ==========
>
> Censorship appears to be in action.
>
> Who is the censor?

It's the new old way. This particular version of censorship probably comes from the left end of the spectrum. But the other end has it's own censor targets!

- Mike -

1285. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 15:48:15 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhee00$o8g$1@f04n12.cac.psu.edu>
Source record: 69932
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:

> Matt Osborn wrote:
>
>> Maybe we should rebuild New Orleans in England, it would balance the
>> scales.
>
>
> We indeed should rebuild New Orleans somewhere that is
> not below sea level.

Absolutely. I don't support money going to rebuilding NO in it's present spot.

The French Quarter is okay where it is. It will eventually become an island, and should last for quite a while yet. Seems like a charming way to get to Mardi Gras - by a boat.

But no matter how much money we pour into th erest of NO, it will sink. I suppose that we could try a Netherlands type approach, with huge dikes and all, but I doubt that there is enough room on the sides to do that, and besides, the Netherlands doesn't have to worry about hurricanes either.

- Mike KB3EIA -

1286. You too can receive $50,000 from spending only $5.00...read this to find out how, and receive a special added bonus!!! You too can receive $50,000 from spending only $5.00...read this to find out how, and receive a special added bonus!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:01:39 UTC
From: Brooklynspy <cpeddy@cisphl.org>
Message-ID: <1127921397.854371.280710@g49g2000cwa.googlegroups.com>
Source record: 69933

Reading This Will Change Your Life!!!

Imagine waking up every day knowing that you don't have any financial worries. Imagine going to bed every night feeling completely at PEACE because you and your loved ones are financially secure.

A little while back, I was browsing through a newsgroup, just like you are now, and came across an article that said you could make thousands of dollars within weeks with only an initial investment of $5.00! So I thought, "Yeah right, this must be another scam", but like most normal humans, I was curious, so I kept reading... I also did an Internet search (I did not want to be caught by another get rich quick scam), and found nothing but success stories.

It said that you should send $1.00 to each of the 5 names and addresses stated in the article. You then place your own name and address in the bottom of the list at the 5th position, and post the article in at least 200 newsgroups. (There are thousands)

No catch, that was it.

So after thinking it over, and talking to a few people first, I thought about
trying it. I figured "what have I got to lose except 5 stamps and $5.00, right?" People spend $5.00 on things that bring MUCH less return than this does!

Then I invested the measly $5.00 (Yes I used the word "measly" because $5.00
really is a measly amount compared to the money I have made through my initial
investment).

Well GUESS WHAT!!

... within 7-10 days, I started getting money in the mail! I was shocked! I figured it would end soon, but the money just kept coming in. This is so amazing, in my first week, I made about $25.00. By the end of the second week I was thrilled to discover that I had made a total of over $1,000.00! Oh my God, in the third week I had over $10,000.00 and it's still growing.

I Realized...This Is How Life Should Be!!
And I Guarantee You Can Live This Way Right Now!!

This is now my fourth outstanding week and I have made just over $42,000.00 and
it's still coming in rapidly. It's certainly worth the $5.00, and 5 stamps, I have spent more than that on lottery tickets!! Make sure you print a copy of this article NOW, so you can get this fantastic information when you need it.

Let me tell you how this works and most importantly, why it works...

I promise you that if you follow the directions exactly, that you will start making more money than you thought possible by doing something so easy! Read this entire message carefully! (print it out or download it). Follow the simple directions and watch your money pour in! It's easy, It's legal, and...

It's The Perfect Opportunity At The Perfect Time!!
I'm Dead Serious!!

VERY IMPORTANT: This is not a rip-off; it is not indecent; it is not illegal; and it is virtually no risk - This is the best deal ever, and it really works!!! If all of the following instructions are adhered to, you will receive extraordinary dividends from an investment is only $5.00 (Plus postage).

PLEASE NOTE: Follow these directions EXACTLY, and $50,000 or more can be yours in 20 to 60 days. Don't you think it's time for your dreams to come true? It has nothing to do with luck, this is a very powerful, and truly amazing system that has proven to increase the fortunes of ordinary people time and time again.

The Bottom Line Is This

This program remains successful because of the honesty and integrity of the participants. Please continue its success by carefully adhering to the instructions.
You will now become part of the Mail Order business. In this business your product is not solid and tangible, it's a service. You are in the business of developing Mailing Lists. Many large corporations are happy to pay big bucks for quality lists.

Here are the four easy steps to success:

STEP 1:

Get 5 separate pieces of paper and write the following on each piece of

paper "PLEASE PUT ME ON YOUR MAILING LIST." Now get 5 US $1.00 bills and place ONE inside EACH of the 5 pieces of paper so the bill will not be seen through the envelope (to prevent thievery).

Next, place one paper in each of the 5 envelopes and seal them. You should now have 5 sealed envelopes, inside each envelope should have a

piece of paper stating the phrase...

"PLEASE PUT ME ON YOUR MAILING LIST."
(please add your printed name and mailing address under this phrase)

Remember: A US $1.00 bill, as payment for your name going on the mailing list, must also be in each envelope.

What you are doing is creating a service. THIS IS ABSOLUTELY LEGAL! You are requesting a legitimate service and you are paying for it! Like most of us I was a little skeptical and a little worried about the legal aspects of it all. So I checked it out with the U.S. Post Office (1-800-725-2161) and they confirmed that it is indeed legal!

Mail the 5 envelopes to the following addresses:

1) J Roth
2901 Barton Skyway 3406
Austin, TX 78746
2) Jesse James
1778 Swift Ave.
Ventura, Ca 93003
3) Andrew L
P.O. Box 84
Cardinal, VA 23025
4) Jake S
4561 w mcnab rd #17
Pompano beach, Fl 33069
5) Jack P (A1)
13 Roosevelt Place
Brooklyn, NY 11233

STEP 2:

Now take the 1st name off the list that you see above, move the other names up (5 becomes 4, 4 becomes 3, etc...) and add YOUR name as number five on the list.

STEP 3:

Change anything you need to, but try to keep this article as close to original as possible. Now, post your amended article to at least 200 newsgroups. (I think there are close to 32,000+) All you need are 200, but remember, the more you post, the more money you make! This is perfectly legal! If you have any doubts, refer to Title 18 Sec. 1302 & 1341 of the Postal lottery laws. Keep a copy of these steps for yourself and, whenever you need money, you can use it again, and again.

PLEASE REMEMBER that this fantastic program remains highly successful because of the honesty and integrity of the participants and by carefully adhering to all the directions. Look at it this way. If you are of integrity, the program will continue, and the money that so many others have received will come your way.

NOTE: You may want to retain every name and address sent to you, either on a
computer or hard copy and keep the notes people send you. This VERIFIES

that you are truly providing a service. (Also, it might be a good idea to wrap the $1 bill in dark paper to reduce the risk of mail theft). So, as each post is downloaded and the directions carefully followed, five members will be reimbursed for their participation as a List Developer with one dollar each. Your name will move up the list geometrically so that when your name reaches the ..1 position you will be receiving thousands of dollars in CASH!!! What an opportunity for only $5.00 ($1.00 for each of the first five people listed above). This AAA system is very legit, and is perfect for creating financial security. This program is also worth 100x the amount you will spend to start it.

Special Bonus Offer

Thanks to PayPal and the Internet, this investment is now virtually ZERO! And what's more, the entire process is FASTER, EASIER, and MORE LUCRATIVE than it has EVER been!

I WAS SHOCKED WHEN I SAW HOW MUCH MONEY CAME FLOODING INTO MY PAYPAL ACCOUNT

That's right my PayPal account. It is now possible to achieve the same or even greater returns by listing emails that have their own PayPal accounts. The only things you will need are: An email address. A Business PayPal account with at least $6 deposited in it, and just 15 to 30 minutes of your time. This program takes just half an hour to set up. After that, there is absolutely no work whatsoever to do on your part. You have absolutely NOTHING to lose, and there is NO LIMIT to the amount of income you can generate from this one single business program.
Just follow the instructions exactly as set out below and then prepare yourself for a HUGE influx of cash over the next 30 days! Here's what you need to do to get started NOW. . .

REQUIREMENTS

1. An email address
2. A Premier or Business PayPal account

STEP 1:

Setting up your FREE PayPal Account It's extremely safe and very easy to set up a FREE PayPal account! Copy and paste this to the address bar

https://www.paypal.com (notice the secure "https" within the link). Be sure to sign up for a free PREMIER or BUSINESS account (and not just a PERSONAL account) otherwise you won't be able to receive credit card payments from other people.

STEP 2:

Sending PayPal money "It is an undeniable law of the universe that we must first give in order to receive." Now all you have to do is send $1.00 by way of PayPal to each of the six email addresses listed below. Make sure the subject of the payment says...

PLEASE PUT ME ON YOUR EMAIL LIST
(this keeps the program 100% legal...so please don't forget!)

Note: (If you do not see the full email address for the 6 members, just

hit reply to this email and they will show up.)

(Just in case you still haven't opened your PayPal account yet, use this link to open one in your name), https://www.paypal.com

1.) wilsoncrenshaw@msn.com
2.) prem_ks@hotmail.com
3.) corey_grayson@hotmail.com
4.) sueandbrian@execulink.com
5.) postachio@hotmail.com
6.) brooklynspy007@yahoo.com

STEP 3:
Adding Your Email Address
After you send your six $1.00 payments, it's your turn to add your email address to the list! Take the #1) email off the list that you see above, move the other
addresses up one (6 becomes 5 & 5 becomes 4, etc) then put YOUR email address (the one used in your Pay Pal account) as #6) on the list.

MAKE SURE THE EMAIL YOU SUPPLY IS EXACTLY AS IT APPEARS IN YOUR PAYPAL ACCOUNT.

STEP 4:

The Pure Joy of Receiving PayPal Money!
You are now ready to post your copy of this message, to at least 200 newsgroups, message boards, etc.

All you need is 200, but remember, the more you post, the more money you make - as well as everyone else on the list! In this situation your

job is to let as many people see this letter as possible. So they will make you and me rich!!!! You can even start posting the moment your email is confirmed. Payments will still appear in your PayPal account even while your bank account is being confirmed.
Remember stick to the game plan, be honest and don't get carried away and you'll make some cash! Good luck out there.

DIRECTIONS FOR HOW TO POST TO NEWSGROUPS

Step 1:

You do not need to re-type this entire letter to do your own posting. Simply put your cursor at the beginning of this letter and drag your Cursors to the bottom of this document, and select 'copy' from the edit

menu. This will copy the entire letter into the computer's memory.

Step 2:

Open a blank 'notepad' file and place your cursor at the top of the

blank page. From the 'edit' menu select 'paste'. This will paste a copy

of the letter into notepad so that you can add your name to the list.

Step 3:

Save your new notepad file as a .txt file. If you want to do your postings in different settings, you'll always have this file to go back to.

Step 4:

Use Netscape or Internet explorer and try searching for various newsgroups (on-line forums, message boards, chat sites, discussions, etc.)
Step 5:

Visit these message boards and post this article as a new message by highlighting the text of this letter and selecting paste from the edit menu. Fill in the Subject, this will be the header that everyone sees as they scroll through the list of postings in a particular group, click the post message button.
You're done with your first one!

Congratulations...THAT'S IT!

All you have to do is jump to different newsgroups and post away, after you get the hang of it, it will take about 30 seconds for each newsgroup!

REMEMBER, THE MORE NEWSGROUPS YOU POST IN, THE MORE MONEY YOU WILL MAKE!! BUT YOU HAVE TO POST A MINIMUM OF 200

That's it! You will begin receiving money from around the world within days! You may eventually want to rent a P.O.Box due to the large amount

of mail you will receive. If you wish to stay anonymous, you can invent

a name to use, as long as the postman will deliver it.

JUST MAKE SURE ALL THE ADDRESSES ARE CORRECT.

Now the WHY part:

Out of 200 postings, say I receive only 5 replies (a very low example).

So then I made $5.00 with my name at ..5 on the letter. Now, each of the 5 persons who just sent me $1.00 make the MINIMUM 200 postings, each with my name at ..5 and only 5 persons respond to each of the original 5, that is another $25.00 for me, now those 25 each make 200 MINIMUM posts with my name at ..4 and only 5 replies each, I will bring

in an additional $125.00! Now, those 125 persons turn around and post the MINIMUM 200 with my name at ..3 and only receive 5 replies each, I will make an additional $626.00! OK, now here is the fun part, each of those 625 persons post a MINIMUM 200 letters with my name at ..2 and they each only receive 5 replies, that just made me 3,125.00! Those 3,125 persons will all deliver this message to 200 newsgroups with my name at ..1 and if still ONLY 5 persons per 200 newsgroups react I will receive $15,625,00! With an original investment of only $5.00! AMAZING! When your name is no longer on the list, you just take the latest posting in the newsgroups, and send out another $5.00 to names on the list, putting your name at number 5 again. And start posting again.

1287. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:06:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8fblj1ho8ej0ihucalee6comabmo87h1b3@4ax.com>
Source record: 69934

On Wed, 28 Sep 2005 08:07:05 -0400, wood@itd.nrl.navy.mil (J. B. Wood) wrote:

>I don't see the point here.

Hi John,

Rather simple one given the stark contrast to claims made by fractalists.

What is the mathematical relationship between:
fractal form and drivepoint Z;
fractal form and resonance;
fractal form and performance?

I can answer those questions, can you? Well, perhaps not literally you, but how about any author you've read? No, they are silent on these topics too, except for the most specific and confined sliver of research that has then been grandiosely projected into the general field. Such is "promise," research inflation.

What is the total length of wire needed to construct a Koch Quadratic to resonate in the 40M band? What is the drivepoint Z of a 3rd iteration of a Sierpinski form at resonance? Which form provides better low angle launch characteristics, a Triangle Sweep monopole, or a Koch Triadic monopole? I can answer those questions with specifics.

What is distinctive about 16M of wire constructed in the form of a 2nd Order Sierpinski? Could you have forecast 80 MHz bandwidth below and including the 2M band from the formulaic expression? I know you couldn't.

For the 1st, 2nd, 3rd, and 4th iterations of a fractal form, can you express how much the progression of resonance shift will occur? Worse yet, can you relate the math of the iteration to ANY frequency? You would have to visit my work first to do that.

If after all these years of study, you cannot find these basic questions answered in the research, and they were all commonly derived for Marconi antennas; it follows that there is nothing distinctive about your dismissal:
>rather elementary
>(and physically large) wire structures and did not have to generally
>concern himself with design issues such as antenna gain/radiation pattern,
>efficiency, driving point impedance, size, weight, etc.
now being offered as a fractal boon to mankind. And yet Marconi and others DID quantify all these characteristics even if you diminish

that past era's need or care in marked contrast to their explicit role, that is center stage today.

Simply put, "research" it is not. What has been published is and has always been called "hi-grading." If this term is unfamiliar to you, it comes from the mining community where a prospector only works the best deposits and ignores the rest. The "researchers" are not describing any qualities of the generic fractal form, they have simply confined their studies to those that have been discovered to have interesting characteristics and have discarded the rest. They could have as easily been focused on Penrose tiles and made the same "discoveries" once they discarded those tiles that were performance busts. This does not elevate Penrose tiles to the status of "having promise."

These discoveries are still based on CHANCE not prediction. Fractals are the Three Card Monty of antenna research.

73's
Richard Clark, KB7QHC

1288. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:09:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhef83kho1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69935

"Richard Harrison" wrote
> Lightning is a transient electric current which follows the path of
> least impedancee.

==========

A better way of studying and predicting what happens during a
lightning stroke is to consider conductors to be transmission lines
having R, L, C and G, and a velocity factor. The generator is a high
impedance, narrow, pulse of current.

Reflections from the ends can be considered. Very crude estimates of
system parameters are inevitable but much better than nothing.

Reg, G4FGQ.

1289. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:14:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <30glj1h90n30iq0vvobans279m8bil7uml@4ax.com>
Source record: 69936

On Wed, 28 Sep 2005 12:03:37 -0000, "Dave" <noone@nowhere.com> wrote:

>and what is that really supposed to do?

Hi Dave,

The presumption Phil offers is that it would serve to choke the surge, or at least serve as a faraday shield to further strike coupling. It could also act as a below wavelength cuttoff attenuator.

Barring any offered explanations and having seen none of these claims made, nor the suggestion neither; I would warn these are only speculations made by me.

73's
Richard Clark, KB7QHC

1290. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:16:05 UTC
From: richardharrison@webtv.net
Message-ID: <4766-433AC1C5-12@storefull-3258.bay.webtv.net>
Source record: 69937

Jim Kelley, AC6XG wrote:
"I think Farqaday stilll provides the best explanation."

Yes. Faraday showed d-c had nothing to do with wireless. It was the a-c motivating wireless electrical coupling.

An Englishman, Faraday, constructed a transformer in 1831. He used two isolateed coils of wire wound on the same spool. He connected a galvanometer across one coil. He noticed a brief deflection of the galvanometer each time he connected or disconnected a battery to the second coil.

Joseph Henry, a professor at Albany Academy in New York was independently making the same observations at the same time as Faraday. When Henry got news of Faraday`s discoveries, he made no effort to claim credit for his own work but often referred to Faraday`s discovery.

It was the change in the magnetic field which induced electricity without a direct connection, not the value of the steady magnetic field itself.

Same with antennas. A battery connected to an antenna sends no signal. A varying field is required to produce a signal in an antenna.

Best regards, Richard Harrison, KB5WZI

1291. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:43:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cfhlj19qkrjf417a7mavq7tdqa9bbg7090@4ax.com>
Source record: 69938

On Wed, 28 Sep 2005 11:16:05 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Same with antennas. A battery connected to an antenna sends no signal. A >varying field is required to produce a signal in an antenna.

Hi Richard,

As much as the practical consequence is supported by this statement, it is not literally true.

The battery (which requires no attachment, but neither does it suffer one) does send a signal. It happens to be a static polar field. Any charge within the vicinity (and arguably that is out to the edge of the cosmos) will perceive its presence, OR its absence. Hence it contains at least binary information. If we know the polarity of the charge, then it contains at least quadratic information.

Within the dynamics and scope of life, there are many static charge signals that hinge upon these 2 bits of information. Now, given I used the terms dynamic and static in the same breath....

73's
Richard Clark, KB7QHC

1292. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:47:59 UTC
From: Dave <noone@nowhere.com>
Message-ID: <N96dnUZqCdraVKfeRVn-qg@crocker.com>
Source record: 69939

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:30glj1h90n30iq0vvobans279m8bil7uml@4ax.com...
> On Wed, 28 Sep 2005 12:03:37 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>and what is that really supposed to do?
>
> Hi Dave,
>
> The presumption Phil offers is that it would serve to choke the surge,
> or at least serve as a faraday shield to further strike coupling. It
> could also act as a below wavelength cuttoff attenuator.
>
> Barring any offered explanations and having seen none of these claims
> made, nor the suggestion neither; I would warn these are only
> speculations made by me.
>

these are speculations that have been made by many without sufficient
testing. the holes in towers are generally much too large to act as a
reasonable faraday cage. nor is the change in inductance from being inside
the tower vs strapped to a leg likely to affect the surge voltages enough to
make a difference. (and it makes removal or replacement much harder!)
besides, even if being inside the tower somehow prevents voltage from being
induced on the cable, it has to exit the tower somewhere... and since the
insulation on any common cable can't withstand the possible hundreds to
thousands of kv potentials caused by lightning they are going to be
punctured anyway if not properly connected to the tower with appropriate
arresters. the same goes for running cables in conduit, if the end of the
couduit is at a high voltage from the lightning currents it will arc over to
the cables where they exit unless properly equalized.

Also, the world class lightning expert i used to work with just laughed at
the idea that a bend in a wire could cause lightning to not follow it. and
in all the work i did on their very detailed lightning simulation software
there was no consideration given for bends in the wires... and in all the
research into algorithms i remember no journal papers discussing bending of
wires as a form of lightning protection... and i'm sure that if it was a
good method it would be widely used since it is so easy to do.

1293. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 16:55:16 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhek4ghsc1@news.service.uci.edu>
Source record: 69944

Harry wrote:

> What does it mean by "when the pulse is *differentiated* by the
> transmitting antenna" ?

Mathematically it means to take the derivitive, or evaluate the slope of a time varying quantity. Electronically it means the antenna acts as a high pass filter - effectively blocking DC and attenuating low frequency signals.

jk

Cecil Moore wrote:

> It means that steady-state DC is incapable of generating photons.

You forgot about the flashlight again, didn't ya Cecil. Photons are generated when the steady state DC source is applied to the light bulb inside. They are allowed to escape through the clear part in the front of the flashlight. :-)

By the way, my nephew just graduated from UCSD with a bachelors in Photonics Engineering. He told me that the photonics engineering discipline is virtually all applied wave mechanics.

ac6xg

1294. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 17:10:59 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87br2dxgm4.fsf@qmc.ph.msstate.edu>
Source record: 69940

>Joseph Henry, a professor at Albany Academy in New York was
>independently making the same observations at the same time as Faraday.
>When Henry got news of Faraday`s discoveries, he made no effort to claim
>credit for his own work but often referred to Faraday`s discovery.
>
>It was the change in the magnetic field which induced electricity
>without a direct connection, not the value of the steady magnetic field
>itself.

Slight correction: it is the change in the magnetic flux that gives
induced EMF. You can get an induced current from a constant
magnetic field if the circuit loop moves in or out of the field,
changing the flux throught the loop.

Tor
N4OGW

1295. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 17:15:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ycA_e.3308$KQ5.2821@newssvr12.news.prodigy.com>
Source record: 69941

Richard Clark wrote:
> These discoveries are still based on CHANCE not prediction.

Your own presumably valuable existence was
"based on CHANCE, not prediction".
--
73, Cecil http://www.qsl.net/w5dxp

1296. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 17:20:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhejck$45b$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69942

I would like to see a design for a 160m fractal which works better
than a half-wave dipole or a 5/8-wave vertical.

Reg.

1297. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 17:32:51 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-2809051333060001@jbw-mac.itd.nrl.navy.mil>
Source record: 69943

In article <8fblj1ho8ej0ihucalee6comabmo87h1b3@4ax.com>, Richard Clark <kb7qhc@comcast.net> wrote:

> Simply put, "research" it is not. What has been published is and has
> always been called "hi-grading." If this term is unfamiliar to you,
> it comes from the mining community where a prospector only works the
> best deposits and ignores the rest. The "researchers" are not
> describing any qualities of the generic fractal form, they have simply
> confined their studies to those that have been discovered to have
> interesting characteristics and have discarded the rest. They could
> have as easily been focused on Penrose tiles and made the same
> "discoveries" once they discarded those tiles that were performance
> busts. This does not elevate Penrose tiles to the status of "having
> promise."
>
> These discoveries are still based on CHANCE not prediction. Fractals
> are the Three Card Monty of antenna research.
>
> 73's
> Richard Clark, KB7QHC

Well, Richard I'll certainly be looking forward to your next IEEE paper on the subject where you can set the rest of the antenna design world straight since you clearly have this expertise ;-) I'll state up front that I have definitely not published any fractal-design antenna papers. I choose to keep an open mind on the subject whether or not "hi-grading" takes place or not. Engineering has never been an exact science and quite often you simply cannot easily write an equation for an electrical property as a function of say, frequency. When it comes to antennas things get messy in hurry when you go beyond basic geometries. If you think not, try perusing the pages of "Antenna Theory", Vols. I and II by Collin and Zucker (published by McGraw-Hill)

Show me a fractal (or some other type) antenna and some repeatable, measured data. If you have modelled it with an antenna modelling program (e.g. the Numerical Electromagnetics Code (NEC)) and the modelled and measured data compare favorably, that's good. We can then decide if we have a candidate fractal antenna for inclusion into, for example, a cell phone, gps receiver or RFID tag that provides the sought-after antenna characteristics for that application. I should also state that my comments are in consideration of all applications requiring antennas in small spaces, not exclusively those of interest to the amateur radio community. Sincerely,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory

4555 Overlook Avenue, SW
Washington, DC 20375-5337

1298. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 17:51:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <85llj1dbo1mku2nicskt5v53ekig8j0mrv@4ax.com>
Source record: 69946

On Wed, 28 Sep 2005 17:20:20 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I would like to see a design for a 160m fractal which works better
>than a half-wave dipole or a 5/8-wave vertical.

Hi Reggie,

Each are 16 meters tall:

2nd Order Koch Quadratic monopole at 26 MHz exhibits:
http://www.qsl.net/kb7qhc/antenna/fractal/Constant%20Height/2nd%20order/16%20meter%20tall%20Quadratic%20Koch%202nd%20order%2026%20MHz%20Elevation%20Lobes.gif

2nd Order MB Curve monopole at 25 MHz exhibits:
http://www.qsl.net/kb7qhc/antenna/fractal/Constant%20Height/2nd%20order/16%20meter%20tall%20Quadratic%20Koch%202nd%20order%2026%20MHz%20Elevation%20Lobes.gif

2nd Order Sierpinski monopole at 26 MHz exhibits:
http://www.qsl.net/kb7qhc/antenna/fractal/Constant%20Height/2nd%20order/16%20meter%20Sierpinski%202nd%20order%2026%20MHz%20Elevation%20Lobes.gif

Simply (sic) scale to the 160M band (230 meters tall, more or less).

I could offer eight more, but then you don't really qualify what you
mean by the subjective term "better." They are all "better" on paper,
which I suppose means they show promise. ;-)

See John, Phil, Dave, Jim, Harry, David, Owen, Fred, Rod? How many
papers, articles, links, or claims gushed over the airwaves offer as
much succinct response as above? One design is asked for and I can
offer 11.

73's
Richard Clark, KB7QHC

1299. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 17:54:38 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <73mlj158ae210i2vutdik3hg5t0987jlsn@4ax.com>
Source record: 69947

On Wed, 28 Sep 2005 14:14:51 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Bob Miller wrote:
>> The instruction book I got with my mfj 989c tuner has a section on
>> ladder line lengths to gravitate to, or avoid, depending on band. It
>> can be downloaded free from the mfj web site.
>
>Hopefully, the lengths to avoid are associated with specific
>loads. Avoiding 1/4WL of ladder-line when feeding a 1/2WL
>dipole may be good advice but 1/4WL of ladder-line is ideal
>for feeding a one wavelength dipole.

They're fairly specific about loads -- their manual is at
http://www.mfjenterprises.com/products.php?prodid=MFJ-989C with pages
7 and 8 talking about feedline lengths.

bob
k5qwg

1300. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 18:02:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <45mlj11krduvrcc4f49tlsg5j2ljtulhnr@4ax.com>
Source record: 69948

On Wed, 28 Sep 2005 13:32:51 -0400, wood@itd.nrl.navy.mil (J. B. Wood) wrote:

>Well, Richard I'll certainly be looking forward to your next IEEE paper on
>the subject where you can set the rest of the antenna design world
>straight since you clearly have this expertise ;-)

Hi John,

That was done some 4 years ago, several times over by Steve Best, V9SRB. If you wish to commemorate the fractal's demise, then visit the scene of that massacre.

>Show me a fractal (or some other type) antenna and some repeatable,
>measured data. If you have modelled it with an antenna modelling program
>(e.g. the Numerical Electromagnetics Code (NEC)) and the modelled and
>measured data compare favorably, that's good.

I've done just this for Reggie in a separate post. It barely represents 1% of my work.

>We can then decide if we
>have a candidate fractal antenna for inclusion into, for example, a cell
>phone, gps receiver or RFID tag that provides the sought-after antenna
>characteristics for that application.

Those same papers also invalidated these presumed attributes, and they were done according to first principles, not the chance of discovery.

The archives are rich in this material's coverage. These same postings also offer the bane of fractal implementation - excessive convolution.

As is so painfully obvious, if fractals were a good idea, we would be using them now.

73's
Richard Clark, KB7QHC

1301. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 18:44:28 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <5nolj1h16e03suln9o3jmsf3irv2eta2l5@4ax.com>
Source record: 69949
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 28 Sep 2005 11:48:15 -0400, Michael Coslo
<mjc5@enoughalready.psu.edu> wrote:

> Absolutely. I don't support money going to rebuilding NO in it's
>present spot.
>
> The French Quarter is okay where it is. It will eventually become an
>island, and should last for quite a while yet. Seems like a charming way
>to get to Mardi Gras - by a boat.
>
> But no matter how much money we pour into th erest of NO, it will sink.
>I suppose that we could try a Netherlands type approach, with huge
>dikes and all, but I doubt that there is enough room on the sides to do
>that, and besides, the Netherlands doesn't have to worry about
>hurricanes either.
>
> - Mike KB3EIA -

I wonder why they don't rebuild New Orleans the way they built Venice,
Italy. Venice was built by people who were trying to get away from
Attila the Hun. Attila wanted farmland, so the nomads of that area
fled and settled in what was a swamp, and they built a city on a
swamp.

(Of course, the first one sank into the swamp, so they built a second
one. THAT one sank into the swamp, so they built a third one. THAT one
burned down, fell over, and then sank into the swamp...but the fourth
one stayed up!)

Seriously, though, New Orleans as a city of canals has a certain
romantic flair to it.

1302. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 18:52:48 UTC
From: Cmdr Buzz Corey <me@that.moc>
Message-ID: <eZWdnSlyDpEbSqfeRVn-gA@gbronline.com>
Source record: 69945
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael Coslo wrote:
> N2EY@AOL.COM wrote:
>
>> Mike Coslo wrote:
>>
>>
>>>> "Pardon me while I slip out of these wet clothes
>>>> and into a dry
>>>> martini." - Groucho (or was it Bugs Bunny?)
>>
>>
>>
>> I think it was Groucho
>>
>>> What happened to all the old Bugs Bunny cartoons anyway?
>>>
>>
>> Warner Bros. has them safely tucked away. Some that were made in the
>> 1940s are not shown anymore because they contain parodies and
>> stereotypes now considered racist.
>>
>> --
>>
>> I think you were asking about Foghorn Leghorn...
>>
>> "Nice girl, but about as sharp as a sack o' wet mice"
>>
>> "DAWG! I say, dawg, you look like two miles o' bad road!"
>>
>> "That widder hen reminds me of the road from Fort Worth to Dallas - no
>> curves"
>>
>> "No, I better not look - I just might be in there"
>>
>> "That dawg reminds me of Paul Revere's ride - a little light in the
>> belfry.."
>
>
> Son, I SAY, Son! I ain't no chicken! Now that over there, THAT's a
> chicken!.....
>
>

> Actually, Ol' Foghorn is probably not the problem. There are a
> number of old WB cartoons that have some rather strong stereotype of the
> folks we were fighting during WWII (the big one) Considering that they
> are now our allies, there might be a little sensitivity thing going on.
>
> Personally, I think they should be shown, especially when introduced
> in the proper context. They are of historical value, and in the context
> of the times, were understandable.
>
> Oh - and they were darn funny too!
>
> - Mike KB3EIA -
>

Some of the 'Little Rascals' can't be show today because they aren't PC,
shame, because they are funny.

1303. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 19:47:23 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dheuh3$ml1$1@news.service.uci.edu>
Source record: 69954

Cecil Moore wrote:

> I didn't realize that a UWB pulse involved flashlights
> but I learn strange new things from you all the time.

You didn't learn that from me. What you should have learned is that DC
can generate photons, contrary to your repeated assertions.

ac6xg

1304. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 20:04:48 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-2809051605040001@jbw-mac.itd.nrl.navy.mil>
Source record: 69950

In article <45mlj11krduvrcc4f49tlsg5j2ljtulhnr@4ax.com>, Richard Clark <kb7qhc@comcast.net> wrote:

> On Wed, 28 Sep 2005 13:32:51 -0400, wood@itd.nrl.navy.mil (J. B. Wood)
> wrote:
>
> >Well, Richard I'll certainly be looking forward to your next IEEE paper on
> >the subject where you can set the rest of the antenna design world
> >straight since you clearly have this expertise ;-)
>
> Hi John,
>
> That was done some 4 years ago, several times over by Steve Best,
> V9SRB. If you wish to commemorate the fractal's demise, then visit
> the scene of that massacre.
>

Well, Steve Best is no slouch when it comes to antennas. I think he was working for Navy shipboard antenna maker Chu & Associates when I last met him some years back. Sincerely,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

1305. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 20:08:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <tLC_e.7382$6e1.1147@newssvr14.news.prodigy.com>
Source record: 69951

Jim Kelley wrote:
> You forgot about the flashlight again, didn't ya Cecil.

I didn't realize that a UWB pulse involved flashlights
but I learn strange new things from you all the time.
--
73, Cecil http://www.qsl.net/w5dxp

1306. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 20:18:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <EUC_e.7384$6e1.2423@newssvr14.news.prodigy.com>
Source record: 69952

Reg Edwards wrote:
> I would like to see a design for a 160m fractal which works better
> than a half-wave dipole or a 5/8-wave vertical.

A fractal antenna is a space-saving device and cannot
"work better than" full sized antennas. A comparison
of fractal antennas and small loops would be much more
interesting.
--
73, Cecil http://www.qsl.net/w5dxp

1307. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 20:24:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <2_C_e.7387$6e1.1775@newssvr14.news.prodigy.com>
Source record: 69953
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:
> Seriously, though, New Orleans as a city of canals has a certain
> romantic flair to it.

Canals below sea level have a habit of becoming big lakes.
--
73, Cecil http://www.qsl.net/w5dxp

1308. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 20:54:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jqD_e.7398$6e1.6989@newssvr14.news.prodigy.com>
Source record: 69955

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> I didn't realize that a UWB pulse involved flashlights
>> but I learn strange new things from you all the time.
>
> You didn't learn that from me. What you should have learned is that DC
> can generate photons, contrary to your repeated assertions.

My repeated assertions are about the *SUBJECT* of this thread,
i.e. UWB pulses. Do I need to quote the meaning of the word,
"context", for you?
--
73, Cecil http://www.qsl.net/w5dxp

1309. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 21:22:24 UTC
From: richardharrison@webtv.net
Message-ID: <13319-433B0990-119@storefull-3255.bay.webtv.net>
Source record: 69957

Reg, G4FGQ wrote:
"A better way of studying and predicting what happens during a lightning strike is to consider conductors to be transmission lines having R, L, C, and G, and a velocity factor."

Could be. I reiterate that experience shows lightning taking the easy accessible path.

If you don`t want lightning traveling on the outside of your coax, hide the coax from the lightning, increase the impedance of the coax exterior, and give the lightning a lower impedance alternate path.

A conductor can offer inductive reactance in addition to its resistance. Put some twists and turns in the coax. A coil`s inductance is proportional to the square of its number of turns.

The inductance of a straight wire is directly proportional to its length and varies inversely with its diameter. Terman says connecting wire inductance can be minimized by making the diameter large (1955 edition, page 13).

If you want to know the inductance of anything, a good place to start looking is Terman`s 1943 "Radio Engineers` Handbook". Someone asked the impedance of a link couplling loop a few days ago. You can find its inductance using the handbook and if you know the frequency the calculation is easy.

In my previous posting, I suggested placing the coax in close proximity with the much larger diameter radio tower. I reasoned that the larger tower has proportionally less inductance and would likely take a lion`s share of the lightning current.

The coax would be better off inside the tower where it is somewhat screened from strikes.

Working decades with radio towers and cables, I`ve seen this protection work.

Richard Harrison, KB5WZI

1310. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 21:34:14 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <433B0CA1.2388ED9F@earthlink.net>
Source record: 69956
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cmdr Buzz Corey wrote:
>
> Some of the 'Little Rascals' can't be show today because they aren't PC,
> shame, because they are funny.

No, but you can find a lot of them on "Dollar Store" DVDs. ;-)

--
?

Michael A. Terrell
Central Florida

1311. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 21:38:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Y2E_e.7452$6e1.5693@newssvr14.news.prodigy.com>
Source record: 69958

Reg Edwards wrote:
> I would like to see a design for a 160m fractal which works better
> than a half-wave dipole or a 5/8-wave vertical.

Reg, I just modeled a 160m dipole (246 ft) Vs a 150 ft.
overall length fractal dipole, both at 100 ft. The gain
of the full sized dipole was 5.54 dBi at 45 deg TOA and
the gain of the fractal dipole was 5.24 dBi at 45 deg TOA.
You think you could tell the difference on the air?

Looking from above, it looks like this:

```
-----+ +-----x-----+ +-----
| | | |
+----+ +-----+
```

Each section is 25 ft. It's just a way of folding an
antenna that meets the fractal specifications.
--
73, Cecil http://www.qsl.net/w5dxp

1312. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 21:53:25 UTC
From: Ham op <hamop@comcast.net>
Message-ID: <3P6dndiR6vEMj6beRVn-rQ@comcast.com>
Source record: 69960
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Cecil Moore wrote:

> Matt Osborn wrote:
>
>> Maybe we should rebuild New Orleans in England, it would balance the
>> scales.
>
>
> We indeed should rebuild New Orleans somewhere that is
> not below sea level.

Cecil, please tell your congressman to not approve rebuilding funds for
the lower levels of NO.

1313. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 21:59:07 UTC
From: K <K@spam.net>
Message-ID: <LmE_e.19$o57.11@tornado.socal.rr.com>
Source record: 69959

Boy, you guys are 'playing' with fire. You're gonna get the 'dragon' out of his lair yet, and that 'mess' will start all over again! har.

k

"Cecil Moore" <mycall@arrl.net> wrote in message news:Y2E_e.7452$6e1.5693@newssvr14.news.prodigy.com...
> Reg Edwards wrote:
>> I would like to see a design for a 160m fractal which works better
>> than a half-wave dipole or a 5/8-wave vertical.
>
> Reg, I just modeled a 160m dipole (246 ft) Vs a 150 ft.
> overall length fractal dipole, both at 100 ft. The gain
> of the full sized dipole was 5.54 dBi at 45 deg TOA and
> the gain of the fractal dipole was 5.24 dBi at 45 deg TOA.
> You think you could tell the difference on the air?
>
> Looking from above, it looks like this:
>
> -----+ +-----x-----+ +-----
> | | | |
> +----+ +-----+
>
> Each section is 25 ft. It's just a way of folding an
> antenna that meets the fractal specifications.
> --
> 73, Cecil http://www.qsl.net/w5dxp

1314. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 22:12:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n95mj11q5c9u4gj0gsr6dngge3qjpd9v5s@4ax.com>
Source record: 69961

On Wed, 28 Sep 2005 20:54:39 GMT, Cecil Moore <mycall@arrl.net> wrote:
>My repeated assertions are about the *SUBJECT* of this thread,
>i.e. UWB pulses. Do I need to quote the meaning of the word,
>"context", for you?
On Wed, 28 Sep 2005 14:36:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>It means that steady-state DC is incapable of generating photons.
We can guess which dictionary changes the meanings.

1315. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 22:14:56 UTC
From: kashe@sonic.net
Message-ID: <ld5mj1lo8359l614efi1vf0qt38la7nsn9@4ax.com>
Source record: 69962
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 26 Sep 2005 16:53:05 -0500, Matt Osborn <> wrote:

>
>Gravity has never been proven. How much more basic can one get?
>

How about you let us know after you return from your walk on
the ceiling.

1316. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 22:17:16 UTC
From: kashe@sonic.net
Message-ID: <4f5mj1pmlba815ke74cku2nikc6o1ll6gp@4ax.com>
Source record: 69963
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 26 Sep 2005 22:30:50 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Matt Osborn wrote:
>> Gravity has never been proven.
>
>I know the answer to this one from my hippie days.
>
>There is no gravity! The earth sucks!

With one exception. I've heard that helicopter pilots say
helicopters can't really fly -- they're so ugly the earth repels them.

1317. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 23:08:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <LnF_e.3362$KQ5.1619@newssvr12.news.prodigy.com>
Source record: 69964

K wrote:
> Boy, you guys are 'playing' with fire. You're gonna get the 'dragon' out of
> his lair yet, and that 'mess' will start all over again! har.

Heh, heh, the 'F' word on this newsgroup is "fractal". :-)
--
73, Cecil http://www.qsl.net/w5dxp

1318. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 23:41:26 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <433B2A70.99249279@earthlink.net>
Source record: 69965
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

kashe@sonic.net wrote:
>
> On Mon, 26 Sep 2005 16:53:05 -0500, Matt Osborn <> wrote:
>
> > >
> > >Gravity has never been proven. How much more basic can one get?
> > >
>
> How about you let us know after you return from your walk on
> the ceiling.

Don't be silly! He can't walk in the ceiling, because it blows! ;-)

--
?

Michael A. Terrell
Central Florida

1319. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 23:45:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <dWF_e.3366$KQ5.2100@newssvr12.news.prodigy.com>
Source record: 69966

Richard Clark wrote:
> On Wed, 28 Sep 2005 14:36:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>It means that steady-state DC is incapable of generating photons.
>
> We can guess which dictionary changes the meanings.

I'm obviously, in context, referring to coherent photons, Richard.
Would you care to explain the physics behind coherent DC photons?
--
73, Cecil http://www.qsl.net/w5dxp

1320. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 23:49:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <quamj199vol4usskje1gte8t3i47v1gtqh@4ax.com>
Source record: 69967

On Wed, 28 Sep 2005 23:45:13 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Would you care to explain the physics behind coherent DC photons?
DC gozinta
Photon comesoutta

1321. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 23:52:00 UTC
From: kashe@sonic.net
Message-ID: <m3bmj1dl4hstfos7ngid3u2sjpcrharq0k@4ax.com>
Source record: 69968
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 26 Sep 2005 11:11:12 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Mon, 26 Sep 2005 03:13:56 GMT, kashe@sonic.net wrote:
>
>>>>>>It's bad enough that people feel a need to believe in any deities at
>>>>>>all, but when you have to listen to a bunch of old men in robes half a
>>>>>>world away tell you how to live your life, you're pretty screwed up.
>>>>>>
>>>>>> Is this a slam against our Muslim brethren? A comment on the
>>>>>>position of Saudi Arabian women?
>>>>>
>>>>>Pope worshipers and Mohamahdists are all the same to me...
>>>>
>>>> That says more about you than about them.
>>>
>>>Such as?
>>
>> If you have to ask ....
>
>Ambiguity will get you nowhere.

If that's ambiguous, you should get back whatever money you
wasted on an education.

1322. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 23:54:01 UTC
From: kashe@sonic.net
Message-ID: <i6bmj11adjephohj6s8r2n7jtnq6pbl4vs@4ax.com>
Source record: 69969
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

>"Ham op" <hamop@comcast.net> wrote in message
>news:88WdnbrHqZgpkbreRVn-tg@comcast.com...
>> Jerry wrote:
>>

> So, the term 'BIGOT' is a prejudicial pre judgment.

Just as that's a tautological redundancy.

1323. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-28 23:56:11 UTC
From: kashe@sonic.net
Message-ID: <p9bmj1t6boaoa0fscj71eiojqqbo3efhh4@4ax.com>
Source record: 69970
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

>Tom Donaly wrote:
>>
>> Faith and works are, like voltage and current, inextricably intertwined.

They are not.

>> The proof of faith is the good work. Those who do no good have no faith.

Your logic book get lost in the hurricane? Come back when you
can name the logical fallacy you just committed.

1324. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 00:09:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <6hG_e.3369$KQ5.1335@newssvr12.news.prodigy.com>
Source record: 69971

Jim Kelley wrote:

> Cecil Moore wrote:
>> I didn't realize that a UWB pulse involved flashlights
>> but I learn strange new things from you all the time.
>
> You didn't learn that from me. What you should have learned is that DC
> can generate photons, contrary to your repeated assertions.

Just in case someone doesn't understand your silly humor, Jim, here's
the original posting:

"It is said that a transmitted UWB pulse should not have any DC because
of the transmitting antenna:"

Antennas emit coherent photons. As far as I know, there's no such thing
as a DC coherent photon, but if I'm wrong, please enlighten us. It's obvious
that I was talking about coherent photons but just for you I will repeat with
the context included this time:

Steady-state DC is incapable of generating coherent photons from an antenna.
--
73, Cecil http://www.qsl.net/w5dxp

1325. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 00:11:29 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jmc9on86rvfcc@corp.supernews.com>
Source record: 69972

Cecil Moore wrote:
> K wrote:
>
>> Boy, you guys are 'playing' with fire. You're gonna get the 'dragon'
>> out of his lair yet, and that 'mess' will start all over again! har.
>
>
> Heh, heh, the 'F' word on this newsgroup is "fractal". :-)

Let the games begin......

1326. Re: UWB pulse signal fuzzy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 00:14:53 UTC
From: ml <m@di.net>
Message-ID: <m-A9F6F6.20145628092005@news.verizon.net>
Source record: 69974

Iok so i am confused on a few things

the photo part

so regardless of weither or not there is or isn't ac or dc , when i xmit (ham or other freq's) are photons being generated??

where would they be?? nearfield? around the antenna?

how would i measure the presence/qty of such??

the other thing i got fuzzy on

static polar field as Mr. clark mentions so why does the battery produce it /how?? are you referring to the fact that is has 'mass' and therefore.... or did i miss the obvious

thanks

fuzzylogic
fuzzynavels
fuzzypeaches

1327. Re: antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 00:56:06 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11jmccok8luhte3@corp.supernews.com>
Source record: 69973

I have a remote tuner in my garage, about 100 feet from my shack. The fluorescent lights flicker in the garage when I transmit with the amplifier on. I suspect this means there are high voltages in the garage. It still works. I us the metal interior of the garage for a ground. The steel sheets that form the interior of the garage are wired together.

Michael W0EZI

"Scott" <acepilot@bloomer.net> wrote in message
news:4OednblHo-PBtaTeRVn-hQ@bright.net...
> Nah, RF is good for burning off warts and such ;)
>
> Scott
> N0EDV
>
> Dave Platt wrote:
>
> This can lead to
>> "RF in the shack" problems, and you may need a really good RF ground
>> for the tuner and rig just to keep RF voltages on the equipment
>> chassis from being a problem.
>>

1328. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 00:58:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8uemj1lgp1di9n1lot8rsi1hijmjp2v7r4@4ax.com>
Source record: 69975

On Thu, 29 Sep 2005 00:09:38 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Steady-state DC is incapable of generating coherent photons from an antenna.
My Flashlight does it every time. Maybe you need new batteries.

What you DON'T say is what you are using for an antenna for those
photons. It would be ridiculous to use a 20M dipole. Maybe you don't
have the right antenna.

1329. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 01:29:05 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <BrH_e.334548$5N3.124446@bgtnsc05-news.ops.worldnet.att.net>
Source record: 69826

Cecil Moore wrote:

[snip]

> Steady-state DC is incapable of generating coherent photons from an
> antenna.

Cecil,

Have you ever heard of a laser diode? You may well use one every day.
Billions of them are made every year for CD players and many other gadgets.

DC goes in; coherent photons come out.

This item is actually a transducer in which electromagnetic fields in a
conductor are converted to electromagnetic fields in space.

Hmmmm, sounds a lot like the function of an antenna.

73,
Gene
W4SZ

1330. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 01:52:24 UTC
From: N2EY@AOL.COM
Message-ID: <1127958744.838040.32970@z14g2000cwz.googlegroups.com>
Source record: 69827
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Michael Coslo wrote:
> Cecil Moore wrote:
>
> > Matt Osborn wrote:
> >
> >> Maybe we should rebuild New Orleans in England, it would balance the
> >> scales.
> >
> >
> > We indeed should rebuild New Orleans somewhere that is
> > not below sea level.

How about Death Valley?
>
> Absolutely. I don't support money going to rebuilding NO > in it's
> present spot.

I agree 100%. But you watch, the money will be poured into it just like
the water.
>
> The French Quarter is okay where it is. It will
> eventually become an
> island, and should last for quite a while yet.
> Seems like a charming way
> to get to Mardi Gras - by a boat.
>
> But no matter how much money we pour into th erest of
> NO, it will sink.
> I suppose that we could try a Netherlands type approach,
> with huge
> dikes and all, but I doubt that there is enough room on the
> sides to do
> that, and besides, the Netherlands doesn't have to worry about
> hurricanes either.

The levees are dikes, aren't they?

There are some important other differences.

It's my understanding that the Dutch built their dikes and filled
in/pumped out the polders as a way of getting more farmland without
fighting wars with their neighbors, and as a way of *reducing* storm
damage. They don't build cities on below-sea-level land. And the way
they deal with the reclaimed land results in it slowly but surely

rising, not sinking.

But they don't put cities there.

--

There's a bigger problem even than Katrina behind all this...

Modern technology has made almost anything possible from a theoretical point of view. NO could be rebuilt with levees and pumps capable of withstanding a Cat 5 storm, for example.

But the problem is that such solutions, while technically possible, are often prohibitively expensive, particularly on a large scale. Not just to build, but to maintain. Who is going to pay the taxes so that a rebuilt NO can be kept dry?

Or to put it another way - *why* should NO be built in such a highrisk location when there are so many better alternatives?

Just because something can be done doesn't mean it should be done.

I wonder if Shrub ever played SimCity?

73 de Jim, N2EY

1331. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 02:54:34 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <KHI_e.1509$rl1.1349@newssvr27.news.prodigy.net>
Source record: 69828
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

kashe@sonic.net wrote:
>>Tom Donaly wrote:
>>
>>>Faith and works are, like voltage and current, inextricably intertwined.
>
>
> They are not.
>
>
>>>The proof of faith is the good work. Those who do no good have no faith.
>
>
> Your logic book get lost in the hurricane? Come back when you
> can name the logical fallacy you just committed.

Some of the lower forms of American Christianity try to separate faith
and works. That allows them salvation without substance, the lazy man's
path to life without end.
My last two sentences are statements of truth, not a logical
progression. Each has to be taken alone, by itself. (A religious
fundamentalist insisting on logical consistency constitutes a
pretty good joke.) Let me repeat: Those who do no good have no
faith. Next time you and your friends are sitting around speaking
in tongues, you should discuss this. Maybe, if you all think real
hard, together, you can puzzle out what it means.
73,
Tom Donaly, KA6RUH

1332. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 03:26:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <E9J_e.635$sL3.163@newssvr13.news.prodigy.com>
Source record: 69830

Richard Clark wrote:

> On Thu, 29 Sep 2005 00:09:38 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>Steady-state DC is incapable of generating coherent photons from an antenna.
>
> My Flashlight does it every time. Maybe you need new batteries.

Your flashlight is NOT generating DC coherent photons.
--
73, Cecil http://www.qsl.net/w5dxp

1333. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 03:31:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <OeJ_e.636$sL3.91@newssvr13.news.prodigy.com>
Source record: 69831

Gene Fuller wrote:
> DC goes in; coherent photons come out.

An RF antenna emits photons coherent with the RF supply frequency.
An LED does not emit photons coherent with the DC supply frequency
and neither do flashlights. This is what I have been trying to say.
--
73, Cecil http://www.qsl.net/w5dxp

1334. Re: UWB pulse signal fuzzy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 03:35:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <7iJ_e.1076$Y_5.969@newssvr11.news.prodigy.com>
Source record: 69829

ml wrote:

> Iok so i am confused on a few things
>
> the photo part
>
> so regardless of weither or not there is or isn't ac or dc , when i
> xmit (ham or other freq's) are photons being generated??
>
>
> where would they be?? nearfield? around the antenna?
>
> how would i measure the presence/qty of such??
>
>
> the other thing i got fuzzy on
>
> static polar field as Mr. clark mentions so why does the battery
> produce it /how?? are you referring to the fact that is has 'mass' and
> therefore.... or did i miss the obvious
>
>
>
> thanks
>
>
> fuzzylogic
> fuzzynavels
> fuzzypeaches

Don't listen to these guys. They're changing the subject by changing the scale of the argument in order
to digladiate with one another. The truth is, that if an antenna really differentiates a signal so that what it radiates is based on the rate of change of the original signal, then the DC part of the original signal won't contribute to the radiation because the rate of change of a constant(the DC part)is zero. It isn't any more complicated than that.
73,
Tom Donaly, KA6RUH

1335. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 03:44:15 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <cqJ_e.9932$GK2.46@lakeread07>
Source record: 69832

Richard Clark wrote:

> On Tue, 27 Sep 2005 07:39:01 -0400, wood@itd.nrl.navy.mil (J. B. Wood)
> wrote:
>
>>numerous papers with measured data on fractal design have been published
> ...
>>I think it's too early to say whether or not fractal antennas will be....
>
> Hi John,
>
> Don't you see a bit of disconnect between these statements?
>
> How long do you think it took Marconi to go from experimental antennas
> to science, to production? And this was from when they banged rocks
> together, not after a century of introspection on the subject.
>
> To answer my question, and to show the perspective of failure for
> fractals:
> At the age of 19 he was performing his first experiments with antenna
> and transmission of RF;
> At the age of 22 he had his first patent for same;
> At the age of 27 he transmitted across the Atlantic;
> At the age of 35 he was awarded the Nobel Prize for all things
> considered.
>
> Well, we won't go as far as the Nobel; after all, it requires some
> demonstration of a unique contribution to science. But on the other
> hand, "research" on fractal things are all expressed in the same
> breathless excitement of "discovery" and yet they've been circling the
> same arid landscape like vultures in search for carrion.
>
> Let's simply look at the science stripped from these gushing claims,
> and the teary-eyed exultation that attends fractals. The simple
> dipole or monopole have a not to complex formula for the description
> of their drive point Z. Name one formula (that is not my own) that
> does so for fractal antennas. There is a very simple formula for
> correlating the resonance of a wire antenna frequency/length. Name
> one formula (that is not my own) that does so for fractal antennas.
>
> I've read a lot of this tripe that endlessly re-discovers the Koch
> Triadic/Quadratic/.... Unless you've come across some remarkable
> treatise that reveals correlations that uniquely associates the
> fractal math with the technical outcome, then such fluff pieces are

> academic masturbation.
>
> The golden glow on the horizon:
>>the technology shows promise.
> as sincere as it is, has no justifiable basis beyond the same emotion
> stirred with the promise of snake-oil curing ____. This field has
> been tilled for a decade (cohen keeps inflating his resume to push
> that further back) and no new age has grown from that effort. As
> such, Marconi captured the world's imagination in less time, and we
> have the math to correlate the reality of that achievement. Clearly
> the sum of the 21st century researchers of fractal antennas do not
> equal the total of one 19th century Italian gentleman dabbler.
>
> 73's
> Richard Clark, KB7QHC
can you send me an e-mail on this subject in private. I am working on a
small project that seeks to tune in HDTV signals (or standard tv in
general) and I would like some input on how to design a good fractal that
would work with a minimum of complexity...

e-maik in sig...

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

1336. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 04:40:22 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <OeK_e.9980$GK2.6666@lakeread07>
Source record: 69833

J. B. Wood wrote:

> In article <6muij11sgp4h5hj9u39ndqfir0cocpvkf0@4ax.com>, Richard Clark
> <kb7qhc@comcast.net> wrote:
>
>> Hi John,
>>
>> Don't you see a bit of disconnect between these statements?
>>
>> How long do you think it took Marconi to go from experimental antennas
>> to science, to production? And this was from when they banged rocks
>> together, not after a century of introspection on the subject.
>>
>> To answer my question, and to show the perspective of failure for
>> fractals:
>> At the age of 19 he was performing his first experiments with antenna
>> and transmission of RF;
>> At the age of 22 he had his first patent for same;
>> At the age of 27 he transmitted across the Atlantic;
>> At the age of 35 he was awarded the Nobel Prize for all things
>> considered.
>>
>
> I don't see the point here. Marconi was dealing with rather elementary
> (and physically large) wire structures and did not have to generally
> concern himself with design issues such as antenna gain/radiation pattern,
> efficiency, driving point impedance, size, weight, etc. Back in Marconi's
> time it might have gone down like this: Try it and see if it works. Wow,
> it works! Now if we could time-travel to that era we could ask: Could we
> tweak the antenna for higher gain? Is the transmit antenna optimally
> matched to our spark-gap transmitter? Gosh I don't know. What's antenna
> gain?
>
> Packing an antenna with required performance, for example, into a cell
> phone is not as simple as it sounds. I don't see any reason to get in a
> dither over a particular antenna type if its performance is well
> documented and its theoretical basis is in concert with (does not violate)
> electromagnetic theory. Granted, I do see a heck of a lot more papers on
> patch antennas than I do fractal types but so what? I don't ever remember
> seeing any papers on E/H or crossed-field antennas in any IEEE pub nor do
> I ever expect to. I'm also very leery of antenna performance claims and
> specious explanations provided by websites such as www.antennex.com even
> though a lot of their contributors are our Canadian ham brothers. An
> amateur radio license does not make one an antenna engineer. The ham may

> be a prolific inventor/tinkerer, perhaps with some applicable technical
> knowledge that facilitates him/her "stumbling" upon a great antenna
> design. But he/she is not an antenna/electronics/electrical engineer
> (unless they have pursued that course of study). Sincerely,
>
> John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
> Naval Research Laboratory
> 4555 Overlook Avenue, SW
> Washington, DC 20375-5337
well,
I am of the old school on this one myself: try it out, measure it and then duplicate the results (scientific method). personally, I'd like to get some of the math down first, and then get some building ideas and see what can be made to work for the average home user/ham...

I've built many an antenna since before I became a ham. There is walys something new to be learned from the building (such as math, construction techniques and the like).

I agree with what Richard Clarke says on this, any marketing hype is just that: snake oil salesmanship. I want to see real numbers and real results before I believe what someones marketing dept. printed up.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

1337. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 04:40:50 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <iirmj113n6dobudntercht4kqub6o2iik@4ax.com>
Source record: 69835
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 28 Sep 2005 23:52:00 GMT, kashe@sonic.net wrote:

>>>>>Pope worshipers and Mohamahdists are all the same to me...
>>>>>
>>>>> That says more about you than about them.
>>>>
>>>>Such as?
>>>
>>> If you have to ask ....
>>
>>Ambiguity will get you nowhere.
>
> If that's ambiguous, you should get back whatever money you
>wasted on an education.

YOU are the one that wants to play games and won't answer my question.
You also wait several days before posting any response, which leads me
to believe that you have to wait until mommy and daddy are out of the
house before you can get on the computer.

1338. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 04:43:55 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <8iK_e.9981$GK2.2615@lakeread07>
Source record: 69834

Richard Clark wrote:

> As is so painfully obvious, if fractals were a good idea, we would be
> using them now.
>
> 73's
> Richard Clark, KB7QHC

its not that we can't use them, its just that we don't yet know how to use them (let alone design one that works, or so my searching seems to indicate).

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

1339. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 05:02:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5brmj11a47ct0pdv1trsr4s40i7etepemu@4ax.com>
Source record: 69836

On Wed, 28 Sep 2005 20:44:15 -0700, N7ZZT - Eric Oyen
<n7zzt@127.0.0.1> wrote:

>can you send me an e-mail on this subject in private. I am working on a
>small project that seeks to tune in HDTV signals (or standard tv in
>general) and I would like some input on how to design a good fractal that
>would work with a minimum of complexity...

Hi Eric,

Yes, but the purpose of a newsgroup is to enlarge the general
understanding of a topic.

As for your topic of HDTV signals, the simple answer is one of the
oldest fractals (which is one of those claim grabs where the bastard
technology adopts its own grandparents for legitimacy's sake alone).

Try the Log Periodic Dipole Array. It is certainly wide band, but I'm
not so sure this equates to phase distortion free - if that is a
problem. I cannot say the problem interests me because I'm of the
opinion that HDTV will be serving HD crap. I long ago gave up on
cable because I was no more interested in 200 channels of crap than a
dozen or so over the air. Netflix is cheaper.

As for wide band fractals:

Bandwidth goes contrary to small size. Fractals boast of being small.
Widebandedness does not come with small, even if it does come with
being fractal. The design alluded to in another posting with this
kind of wide bandwidth:
http://www.qsl.net/kb7qhc/antenna/fractal/Constant%20Fractal/2nd%20Order/Sierpinski%2016M%20wire%202nd%20order%20377%20Ohm%20SWR%20Special.gif
covers EVERY VHF TV channel with below 2:1 SWR.

This design comes with a huge price. It consumes 64 meters of wire!

If you are looking for gain, you are looking at size again. If not in
the overall spread, then in the overall outline. Fractals only boast
of size (when they are smaller) because they can be tailored for a
match. TV antennas, for years, have long solved matching problems.

If you are looking for radiation lobe characteristics, fractals are
not notably intuitive models of symmetry. In fact they are as
perverted in their kinky patterns as they are with their kinky wire.

You could build an array from these loops:
http://www.qsl.net/kb7qhc/antenna/fractal/Square%20Gasket/index.htm
which performs just as well or better than its larger, conventional

design, but you clearly state above:
>would work with a minimum of complexity...
which negates nearly the entire topic.

If none of this dissuades you, write me offline and we will keep it there. Certainly there is a limit to the interest online, and it usually dies at about the 5 or 6th post in the thread as it did here. The only thing that kept it alive in times past was the carnival atmosphere and hucksterism.

73's
Richard Clark, KB7QHC

1340. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 05:04:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pbtmj1tpb47kce0qk3tqeuagt4cma178ot@4ax.com>
Source record: 69837

On Thu, 29 Sep 2005 03:26:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Your flashlight is NOT generating DC coherent photons.
Mine does. Like I said, yours probably needs batteries, or perhaps it
is suffering a dimbulb behind the on/off switch.

1341. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 05:05:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fgtmj1tgvl2d3p039d7403rko1412jjf3j@4ax.com>
Source record: 69838

On Thu, 29 Sep 2005 03:31:58 GMT, Cecil Moore <mycall@arrl.net> wrote:
>This is what I have been trying to say.
If you understood what you were saying, you would probably stop saying
it.

1342. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 05:18:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9otmj1hvu45fcui3mfdr5gags939sripig@4ax.com>
Source record: 69839

On Wed, 28 Sep 2005 21:43:55 -0700, N7ZZT - Eric Oyen
<n7zzt@127.0.0.1> wrote:

>Richard Clark wrote:
>
>> As is so painfully obvious, if fractals were a good idea, we would be
>> using them now.
>>
>> 73's
>> Richard Clark, KB7QHC
>its not that we can't use them, its just that we don't yet know how to use
>them (let alone design one that works, or so my searching seems to
>indicate).

Hi Eric,

One of the Amazing Randy's most compelling points made is that experts
are the easiest marks of the con-man, and make great suckers for
complex scams.

It remains painfully obvious to the non-expert that such remarkable
qualities would naturally surface quickly as the mainstream choice.

It has not happened for very many, good reasons. If "we" don't know
how to use them, and you cannot find anyone who can, it stands to
reason that only an expert could make sense of this.

Really, fractals make kewel patterns, and they should be more useful
than spirographings for tots, but as for the rest of it there is a
useful saying that aptly fits:
A solution in search of a problem.

73's
Richard Clark, KB7QHC

1343. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 06:30:20 UTC
From: Charlie <charlie@play.com>
Message-ID: <11jn2gsmlkkkjcf@news.supernews.com>
Source record: 69840
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom if what you say is true about no works = no faith and subsequently no salvation...where were the good works from the thief on the cross who, according to Christian scripture, was saved and is already in heaven?

--

Charlie

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message news:KHI_e.1509$rl1.1349@newssvr27.news.prodigy.net...
> kashe@sonic.net wrote:
>>>Tom Donaly wrote:
>>>
>>>>Faith and works are, like voltage and current, inextricably intertwined.
>>
>>
>> They are not.
>>
>>
>>>>The proof of faith is the good work. Those who do no good have no faith.
>>
>>
>> Your logic book get lost in the hurricane? Come back when you
>> can name the logical fallacy you just committed.
>
> Some of the lower forms of American Christianity try to separate faith
> and works. That allows them salvation without substance, the lazy man's
> path to life without end.
> My last two sentences are statements of truth, not a logical
> progression. Each has to be taken alone, by itself. (A religious
> fundamentalist insisting on logical consistency constitutes a
> pretty good joke.) Let me repeat: Those who do no good have no
> faith. Next time you and your friends are sitting around speaking
> in tongues, you should discuss this. Maybe, if you all think real
> hard, together, you can puzzle out what it means.
> 73,
> Tom Donaly, KA6RUH

1344. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 06:56:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ueM_e.654$sL3.167@newssvr13.news.prodigy.com>
Source record: 69841

Richard Clark wrote:
> On Thu, 29 Sep 2005 03:26:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>Your flashlight is NOT generating DC coherent photons.
>
> Mine does. Like I said, yours probably needs batteries, or perhaps it
> is suffering a dimbulb behind the on/off switch.

Assuming your flashlight does generate photons with a frequency
of zero Hz, how do you detect them?
--
73, Cecil http://www.qsl.net/w5dxp

1345. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 08:16:51 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <G6ydnUhSrtJoP6beRVn-iw@comcast.com>
Source record: 69842
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

> You're walking on an assumption that is called gravity. Just like
> G-d, plenty of evidence but no proof.

What pisses me off about your posts is this almost deliberate attempt to obfuscate by equivocating, word playing and substituting terms which are incompatible. You keep doing it in almost every post and it gets tired fast. Like, for instance, in the example above: "plenty of evidence but no proof" is meaningless drivel. Of all the scientific disciplines, only mathematics deals with proof. Others, physics included, deal with evidence which is derived from a direct or indirect observation of certain phenomena and is the basis for a theory, such as the gravitational theory, for example.
Therefore, to say that there is "no proof" for gravity is gibberish, even in the solipsist sense.

73 .... WA7AA

P.S. I am dying to hear some "evidence" of what you call "G-d". I am sure the Nobel committee would be interested as well.

1346. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 09:28:46 UTC
From: N2EY@AOL.COM
Message-ID: <1127986126.905715.137570@g47g2000cwa.googlegroups.com>
Source record: 69843
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Charlie wrote:
> Tom if what you say is true about no works = no faith and
> subsequently no
> salvation...where were the good works from the thief on the
> cross who,
> according to Christian scripture, was saved and is already in
> heaven?

I can answer that one..

One of the thieves was reportedly cussing and making fun, challenging
Him to prove He was better than they were. The "good thief" told the
"bad thief" to be quiet, because while they deserved what they got, He
had done nothing wrong. Then the "good thief" asked to be remembered.

It may not seem like much of a "good work", but it was all the good
thief could do. His faith came very near the end of his life.
But what about those whose faith comes much earlier in life?

73 de Jim, N2EY
>
> --
>
> Charlie
>
>
>
>
>
>
> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
> news:KHI_e.1509$rl1.1349@newssvr27.news.prodigy.net...
> > kashe@sonic.net wrote:
> >>>Tom Donaly wrote:
> >>>
> >>>>Faith and works are, like voltage and current, inextricably intertwined.
> >>
> >>
> >> They are not.
> >>
> >>
> >>>>The proof of faith is the good work. Those who do no good have no faith.
> >>
> >>

> >> Your logic book get lost in the hurricane? Come back when you
> >> can name the logical fallacy you just committed.
> >
> > Some of the lower forms of American Christianity try to separate faith
> > and works. That allows them salvation without substance, the lazy man's
> > path to life without end.
> > My last two sentences are statements of truth, not a logical
> > progression. Each has to be taken alone, by itself. (A religious
> > fundamentalist insisting on logical consistency constitutes a
> > pretty good joke.) Let me repeat: Those who do no good have no
> > faith. Next time you and your friends are sitting around speaking
> > in tongues, you should discuss this. Maybe, if you all think real
> > hard, together, you can puzzle out what it means.
> > 73,
> > Tom Donaly, KA6RUH

1347. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 11:53:54 UTC
From: Rasputin IV <boinkaroink@spoonshelvesers.com>
Message-ID: <165cf$433bd5e4$d1cc41b8$20958@snip.allthenewsgroups.com>
Source record: 69844
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in message
news:v8udndGEGeWRzareRVn-jA@comcast.com...

> Even if you don't believe in Allah, Aphrodite, Ares, Athena, Apollo,
> Artemis, Babaluaye, Bacchus, Baldur, Bast, Bellona, Brahma, Brigid,
> Ceres, Cupid, Cerridwen, Demeter, Diana, Dione, Dionysus, Eris, Eos,
> Eleggua, , El Shaddai, Elohim, Eshu, Ereshkigal, Frigga, Frey, Freya,
> Gaea, Lord Genesa, Hades, Hebe, Hera, Helios, Hel, Hephaestus, Hermes,
> Hestia, Horus, Ibeji, Ifa, Inanna, Indra, Ishana, Ishtar, Isis, Janus,
> Juno, Jehovah, Jove, Jupiter, Kali. Krishna Kronos, Korravai, Loki,
> Lugh, Lord Indra, Manitou, Mars, Mercury, Minerva, Mercurius, Morrigan,
> Nahuiquiahuitl, Nanahuatzin, Nephthys, Neptune, Obatala, Odin, Ogun,
> Oshosi, Oshun, Osiris, Oya, Orunmila, Olokun, Olodumare, Pluto,
> Persephone, Poseidon, Proserpina, Quetzalcoatl, Ra, Lord Rama, Rhea,
> Saturn, Set, Selene, Shango, Lord Siva, Tammuz, Thor, Tir, Tiw, Uranus,
> Venus, Vesta, Vishnu, Vesta, Vulcan, Wotan, Yahweh, Yemaya, Zeus, and
> thousands of others, they believe in you!

But you forgot the most important Deity in your list above: "Bob" !

Learn about "Bob" here -----> www.subgenius.com

"You'll pay to know what you really think"
- JR "Bob" Dobbs 1959

"Act like a dumbshit and they'll treat you like an equal"
- JR "Bob" Dobbs 1961

1348. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 12:25:52 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhgmgf$1fjc$1@f04n12.cac.psu.edu>
Source record: 69845
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

N2EY@AOL.COM wrote:
> Michael Coslo wrote:
>
>>Cecil Moore wrote:
>>
>>
>>>Matt Osborn wrote:
>>>
>>>
>>>>Maybe we should rebuild New Orleans in England, it would balance the
>>>>scales.
>>>
>>>
>>>We indeed should rebuild New Orleans somewhere that is
>>>not below sea level.
>
>
> How about Death Valley?
>
>> Absolutely. I don't support money going to rebuilding NO > in it's
>>present spot.
>
>
> I agree 100%. But you watch, the money will be poured into it just like
> the water.
>
>>The French Quarter is okay where it is. It will
>>eventually become an
>>island, and should last for quite a while yet.
>>Seems like a charming way
>>to get to Mardi Gras - by a boat.
>>
>>But no matter how much money we pour into th erest of
>>NO, it will sink.
>>I suppose that we could try a Netherlands type approach,
>>with huge
>>dikes and all, but I doubt that there is enough room on the
>>sides to do
>>that, and besides, the Netherlands doesn't have to worry about
>>hurricanes either.
>
>

> The levees are dikes, aren't they?

The Netherlands version of dikes are to levees as a FT-9000 is to a
Rock Mite. I watched a documentary on the things once, and they are
quite a feat of engineering. They are considered one of the seven
woncers of the modern world.

> There are some important other differences.
>
> It's my understanding that the Dutch built their dikes and filled
> in/pumped out the polders as a way of getting more farmland without
> fighting wars with their neighbors, and as a way of *reducing* storm
> damage. They don't build cities on below-sea-level land. And the way
> they deal with the reclaimed land results in it slowly but surely
> rising, not sinking.
>
> But they don't put cities there.

http://geography.about.com/library/weekly/aa033000a.htm

According to this link over 60 percent of the population if the
Netherlands is living beneath sea level.

> --
>
> There's a bigger problem even than Katrina behind all this...
>
> Modern technology has made almost anything possible from a theoretical
> point of view. NO could be rebuilt with levees and pumps capable of
> withstanding a Cat 5 storm, for example.
>
> But the problem is that such solutions, while technically possible, are
> often prohibitively expensive, particularly on a large scale. Not just
> to build, but to maintain. Who is going to pay the taxes so that a
> rebuilt NO can be kept dry?
>
> Or to put it another way - *why* should NO be built in such a highrisk
> location when there are so many better alternatives?

Darned if I know. I don't want my tax money going to rebuilding it in
the same place.

> Just because something can be done doesn't mean it should be done.
>
> I wonder if Shrub ever played SimCity?

The Sims are evil and promote all kinds of sexual abberations.

http://www.electricvenom.com/2005/07/26/sims2-sinful/

An amazing link, that! I guess we better cover up the dirty bits on
the "Justice" statues again.....

- Mike KB3EIA -

1349. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 12:29:17 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhgmmt$1fjc$2@f04n12.cac.psu.edu>
Source record: 69846
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Ted wrote:

> On Wed, 28 Sep 2005 23:52:00 GMT, kashe@sonic.net wrote:
>
>
>
>>>>>>>Pope worshipers and Mohamahdists are all the same to me...
>>>>>>
>>>>>> That says more about you than about them.
>>>>>
>>>>>Such as?
>>>>
>>>> If you have to ask ....
>>>
>>>Ambiguity will get you nowhere.
>>
>> If that's ambiguous, you should get back whatever money you
>>wasted on an education.
>
>
> YOU are the one that wants to play games and won't answer my question.
> You also wait several days before posting any response, which leads me
> to believe that you have to wait until mommy and daddy are out of the
> house before you can get on the computer.

kashe is just using us as his/her straight men. You know, toss out a few insults, make irrelevant comments. I like to read them because a few are funny.

- Mike KB3EIA -

1350. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:35 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433b5e7f@fidonet.org>
Source record: 69847

"Richard Harrison" bravely wrote to "All" (28 Sep 05 16:22:24)
--- on the heady topic of "Re: Lightning Question"

RH> From: richardharrison@webtv.net (Richard Harrison)
RH> Xref: core-easynews rec.radio.amateur.antenna:217540

RH> A conductor can offer inductive reactance in addition to its
RH> resistance. Put some twists and turns in the coax. A coil`s inductance
RH> is proportional to the square of its number of turns.

I think you are missing one thing that seems to be much too obvious.
Air conducts 10 times better than the plastic insulation in the coax
and the lightning will simply jump over the twists and turns, without
the slightest effort.

What you really want to do is to give lightning an alternate path that
conducts better than the air, so that your coax is ignored.

However, I think you are right in giving the coax path more inductance
because the lightning leader is a high frequency phenomenon and it is
the leader that initiates the path for the lightning strike.

A*s*i*m*o*v

... Always remember you're unique - just like everyone else.

1351. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:36 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433a129b@fidonet.org>
Source record: 69851

"Cecil Moore" bravely wrote to "All" (27 Sep 05 22:14:43)
--- on the heady topic of "Re: UWB pulse signal has no DC? Why?"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:217466

CM> Harry wrote:
> Would someone please explain that for me?

CM> DC steady-state does not cause electrons to emit photons.
CM> For RF photons to be emitted from a copper wire dipole, the
CM> free electrons must be accelerated and decelerated. The DC
CM> component cannot accomplish that feat.

Very true on the macro scale but even a DC potential becomes
discontinuous at a microscopic level. Remember that there is a
distance between atoms, electrons, molecules and are not continuous.
How is it done except if not by photons, virtual or otherwise, whether
the context is AC or DC?

A*s*i*m*o*v

... Pandora's Law: Never open a box you didn't close yourself

1352. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:37 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_432f8413@fidonet.org>
Source record: 69850

"Cecil Moore" bravely wrote to "All" (19 Sep 05 09:27:25)
--- on the heady topic of "Re: 73 Ohms, How do you get it?"

CM> Subject: Re: 73 Ohms, How do you get it?
CM> Xref: core-easynews rec.radio.amateur.antenna:216868

CM> pezSV7BAXdag wrote:
> The limit for Z does not exist
> or is (in general) the complex infinity.

CM> As the length of a dipole is increased, for the same
CM> power input, more energy is radiated during the first
CM> transcient cycle and less is available for reflection
CM> from the ends of the dipole. Reflected energy is what
CM> is causing the feedpoint impedance to change. As the
CM> length of the dipole is incrementally increased, the
CM> magnitude of the reflected energy is incrementally
CM> decreased. I believe Balanis alludes to this characteristic
CM> of standing-wave antennas.

CM> The feedpoint impedance is Zfp = (Vfor+Vref)/(Ifor+Iref)
CM> using phasor addition.

CM> The limit of that equation as Vref and Iref go to zero
CM> is Vfor/Ifor. That's what happens for an infinitely
CM> long dipole. That's also what happens during the transient
CM> phase of a finite dipole. Thus, Vfor/Ifor can be thought
CM> of as the characteristic impedance of the dipole. Seems
CM> to me, Vfor/Ifor could actually be measured during the
CM> transient phase of a long finite dipole. Will a TDR
CM> report the ratio of V/I for an RF pulse?

Cecil, an infinitely long antenna is simply an impedance transformation
between different mediums. i.e. wire to free space.

A*s*i*m*o*v

1353. Re: cell phone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:38 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_431e57e6@fidonet.org>
Source record: 69848

"tjs" bravely wrote to "All" (06 Sep 05 13:29:42)
--- on the heady topic of "Re: cell phone antenna"

Say we point a yagi cut for 900MHz or 2.4GHz at the tower and instead
of using a coax to connect to the cellphone we use a balun to match a
small vertical directly connected to it. Then use the cellphone in
proximity to the yagi/balun/vertical combined antenna. If the yagi has
say +12dB gain then won't the vertical reradiate and recieve with that
added gain or is this one of those perpetual motion impossible gizmos?

A*s*i*m*o*v

tj> From: "tjs" <anon@anon.net>
tj> Services Xref: core-easynews rec.radio.amateur.antenna:216297

tj> If your OK with the possibilty of ruining the phone!
tj> .. you can try to solder a short pigtail of coax to the antenna points
tj> you see in the phone. Put a BNC on the end of the pigtail and use this
tj> to connect any type of experimental antenna you like.

tj> I dont know about in the Phillipines, but most cell phone operate on
tj> several frequency bands, so the antenna is a compromise. If for
tj> instance the frequencies are 900mhz and 2400mhz then you need to force
tj> the phone to operate on say 900 then attach a properly tuned antanna
tj> for 900mhz. Likewise for 2400mhz. A resonant half wave dipole for 900
tj> mhz will be about 33cm (or a quarter wave vertical would be about 16cm
tj> tall with radials of 16cm). Directional antennas would be better but
tj> they are more critical to build and adjust.
tj> One way to solve your problem might be to sit on the roof to talk,
tj> that way you get gain by your height.

tj> Another way might be locate the phone up high, and use a remote
tj> headset, and use voice commands to dial out. You still get the benefit
tj> of height but can stay inside.

tj> You could put the phone in the focus of a corner reflector or
tj> parabolic dish pointed at the cell tower. The phone is the radiator and
tj> the dish gives you gain. This is probably the ideal setup if you are
tj> stationary in not mobile.
tj> Note: Any time you try to remote the antenna you need a length of coax
tj> between the phone and the antenna. At these frequencies, 50ft of even
tj> excellent coax (1/2" diameter) will likely completly ruin any gain the
tj> antenna may give you. You would only be eliminating some sources of
tj> noise by getting up away from the house. Directional antennas give
tj> +gain and the neccessary coax gives -gain but hopefully not as much, so
tj> you come out ahead.

tj> "yhan" <cheian07@yahoo.com> wrote in message
tj> news:1125902678.882565.61710@g47g2000cwa.googlegroups.com...
> greetings,
>
> i am trying to build an external antenna for my cp. i have found

... Bad day: When the bird singing outside is a buzzard!

1354. Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:39 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_4319f13f@fidonet.org>
Source record: 69849

"Fedthecat" bravely wrote to "All" (03 Sep 05 01:32:53)
--- on the heady topic of "Trying to get AM broadcast at job"

Fe> From: "Fedthecat" <Fedthecat@aol.com>
Fe> Xref: core-easynews rec.radio.amateur.antenna:216151

Fe> Bought a small boombox. It has no antenna connection screws, just a
Fe> built-in antenna. It gets no AM stations at all, just static. I work
Fe> in a big GM plant (all steel building). Nobodies radios get AM.

Fe> I mounted a car antenna on a bracket (isolated from the bracket with a
Fe> rubber gromet) and mounted the bracket to a chain link fence 20ft from
Fe> the plant. I hooked a coax center wire to the antenna base. I clamped
Fe> the braided wire to the bracket. At the other end, inside the plant, I
Fe> connected the center wire to the built-in antenna on the radio via an
Fe> alligator clip. I still get no AM. I haven't hooked the braided wire
Fe> to anything because I have no terminals on the radio. Do I hook it to
Fe> any ground, such as an eletrical conduit or can I hook it to the radios
Fe> battery ground terminals(I am not using the battery terminals because
Fe> I am plugged into an outlet)? Am I far enough from the building? Do I
Fe> need to be above the building? Is there a limit to how long my coax
Fe> can be? Any advice is more than I currently have. Thanks...

The radio's built-in whip antenna only works for the FM tuner. The AM
antenna is a ferrite loopstick directly mounted on the circuit board.
There is no connection between the two antennas.

What you might try is to make a coupling loop with some turns of wire
(10+). Connect the ends of this to the coax, center and braid. Then
place the loop vertically near the radio oriented so that the AM
loopstick points at the center of the loop (taped to side of case).
You might improve it by adding a variable trimmer cap in series with
the coax or in parallel across the loop to tune sensitivity.

Other than this try leaving the radio outside and extend the speaker
wire instead.

A*s*i*m*o*v

... <- Grains Of Salt. Take As Needed With Above Message.

1355. Re: Amplfier opinion

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:40 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_4317c2f5@fidonet.org>
Source record: 69852

"Ralph Mowery" bravely wrote to "All" (01 Sep 05 19:38:35)
--- on the heady topic of "Re: Amplfier opinion"

RM> From: "Ralph Mowery" <rmowery28146@earthlink.net>
RM> Xref: core-easynews rec.radio.amateur.antenna:216043

RM> "Ham op" <hamop@comcast.net> wrote in message
RM> news:NqOdnbmOQvihpIveRVn-jA@comcast.com...
> 7.78 Db BETTER [+1 1/4 S unit] than 100 watts.
>
> Upgrade the vertical to a beam and the net gain can be as high as +19.78
> dB [3+ S units] on the path:
> 1] + 6 dB in receive
> 2] + 6 dB in transmit
> 3] + 7.78 dB for the amplifier.
>
> For $1400, a beam has a much better return on investment than an
> amplifier by itself.
>
> The #1 rule I teach new or aspiring hams is "Your station efficiency,
> and your enjoyment, is directly proportional to your antenna."
>

RM> I will agree that it is best to go with a beter antenna, sometimes it
RM> is just not practical. Not many can put up a beam for 80 meters and
RM> not that many for ever 40 meters. Most amps will do 80 to 15 meters.

Just wondering if it wouldn't be possible to compensate for antenna
size, by actively driving the reflective, directive elements using
correctly phased amounts of power from the xmtr output. I'm probably
preaching heresy in the midst of this bunch of laurelled gurus but I
don't mind being told I'm thinking laterally, so shoot your best
flames.

A*s*i*m*o*v

... Firemen are proud of their hoses.

1356. OT - Oscilloscope

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:41 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_430f4ad2@fidonet.org>
Source record: 69853

"Al" bravely wrote to "All" (26 Aug 05 11:26:49)
--- on the heady topic of "OT - Oscilloscope"

Al> From: "Al" <aburzynski@nojunk.satx.rr.com>
Al> Xref: core-easynews rec.radio.amateur.antenna:215746

Al> I acquired a Tektronix 2430A digital oscilloscope and I'm having
Al> problems with it. Is there a newsgroup that would be proper to post
Al> such a question to? Thanks.
Al> Al KA5JGV
Al> San Antonio, TX

Try s.e.r (sci.electronics.repair), there are ex-Tek workers there who
know them inside out.

A*s*i*m*o*v

... Tool: a toy that's profitable to play with.

1357. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 14:31:41 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_430dd78a@fidonet.org>
Source record: 69854

"Dave" bravely wrote to "All" (25 Aug 05 12:48:54)
--- on the heady topic of "Re: Antenna improvements?"

Physicists bounce radar off meteor trails in the upper atmosphere.
This ionized air path reflects radio waves and can be detected.

Da> From: "Dave" <noone@nowhere.com>
Da> Xref: core-easynews rec.radio.amateur.antenna:215723

Da> you missed cfa, and plasma antennas i think.

Da> "CD" <mr.whatever@gmail.com> wrote in message
Da> news:1124971591.454857.181250@z14g2000cwz.googlegroups.com...
> Hey all,
>
> I was curious if you are aware of any new antenna developments /
> techniques in regards to AM broadcasting. I'm specifically interested
> in smaller AM antennas with high power ratings and a broadband response
> between the AM channels.
>
> I've already stumbled upon DLM from the University of Rhode Island,
> Fractal Antennas from UCLA, EH Antennas from Ted Hart, Isotron, etc.
>
> Thanks!
>
> CD

... Acme Corp: Unlimited credit for disadvantaged coyotes.

1358. UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 15:04:29 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1128006269.858078.317850@g47g2000cwa.googlegroups.com>
Source record: 69855

What is the key factor that will make an antenna wide-band?
(compared with narrow-band antennas)

The more I read about UWB antennas, the more I get confused.
(For example: http://www.uwbgroup.ru/pdf/37schantz.pdf
http://ultra.usc.edu/New_Site/MURI/Schaubert0502pptpdf.pdf
)

I believe there must be a simple principle behind all these different
wide-band antennas. Am I right?

-- Harry

1359. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 15:17:34 UTC
From: Dr Nancy Kohen PhD Freaktal Genius <I.am.god@freaktenna.com>
Message-ID: <bd7f4$433c05bc$97d56a13$25995@ALLTEL.NET>
Source record: 69856

After consultashun with my atorney, I am sooing the entire news group. You have used the word FRACTAL (Pat. Pending) and have made nasty remarks that hurt my feelings.

You will all be served and my atorney says you will all be banned from news grups as well as being enjoyined from ever speaking the word FRACTAL (Pat. Pending).

Govern yourselfes accordianly

Dr Nancy Kohen PhD Fractal Genius DXCC and the insperation for the janitor in "Contact"

"David G. Nagel" <nagel@core.com> wrote in message
news:11jmc9on86rvfcc@corp.supernews.com...
> Cecil Moore wrote:
> > K wrote:
> >
> >> Boy, you guys are 'playing' with fire. You're gonna get the 'dragon'
> >> out of his lair yet, and that 'mess' will start all over again! har.
> >
> >
> > Heh, heh, the 'F' word on this newsgroup is "fractal". :-)
>
> Let the games begin......

1360. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 15:23:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <KFT_e.688$sL3.196@newssvr13.news.prodigy.com>
Source record: 69857

Asimov wrote:
> How is it done except if not by photons, virtual or otherwise, whether
> the context is AC or DC?

DC applied to an antenna no doubt creates virtual photons.
My statements should be considered to exclude such virtual
photons. They are meant to include only detectable photons
coherent with the frequency of the driving signal capable
of propagation through free space which are emitted by the
acceleration/deceleration of free electrons in a copper
wire antenna. (Contexts nowadays are sure complicated.)
--
73, Cecil, http://www.qsl.net/w5dxp

1361. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 15:25:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <WHT_e.689$sL3.328@newssvr13.news.prodigy.com>
Source record: 69858

Asimov wrote:
> Cecil, an infinitely long antenna is simply an impedance transformation
> between different mediums. i.e. wire to free space.

We know one of the impedances to be 377 ohms.
Question is, what is the other impedance?
--
73, Cecil, http://www.qsl.net/w5dxp

1362. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 15:50:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <723oj1pb2c2ssca6g6nu09nj516reov3i0@4ax.com>
Source record: 69859

On Thu, 29 Sep 2005 06:56:26 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Assuming your flashlight does generate photons with a frequency
>of zero Hz, how do you detect them?
You must be assuming delectable photons.

1363. Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 15:55:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <88U_e.693$sL3.385@newssvr13.news.prodigy.com>
Source record: 69860

http://apnews.myway.com/article/20050929/D8CTUA3O7.html

1364. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:00:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <re3oj19iocqma4h7hi6ooqcjjr1l0mssuk@4ax.com>
Source record: 69861

On 29 Sep 2005 08:04:29 -0700, "Harry" <harry0d88@aol.com> wrote:
>I believe there must be a simple principle behind all these different
>wide-band antennas. Am I right?

Hi Harry,

They are all pretty much based on the biconical dipole. The most
familiar example is half of it, found at Radio Shack, as the Discone:
http://www.qsl.net/kb7qhc/antenna/Discone/discone.htm

If you have any working knowledge of the Smith Chart, then you may
notice by the degree of the cone apex angle, that the widebandedness
is a function of the flare of the skirt.

The primitive form would be a simple, thick wire, which has an
equivalent known as the Cage:
http://home.comcast.net/~kb7qhc/antennas/verticals/Cage/cage.htm

As the wire gets thicker, its resonance falls and its bandwidth
increases.

73's
Richard Clark, KB7QHC

1365. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:01:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <3IWdnVBwV9BTkqHeRVn-sw@crocker.com>
Source record: 69862

the 'leader' is usually referring to the charge that is coming down from the cloud and attracting the charge on the ground to it. this process is actually relatively slow, as it the growth of the streamers up from the ground. just note how long you have from when your hair starts standing up to dive into a ditch, that is hardly a high frequency event.

"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message news:MSGID_1=3a167=2f133.0_433b5e7f@fidonet.org...
> "Richard Harrison" bravely wrote to "All" (28 Sep 05 16:22:24)
> --- on the heady topic of "Re: Lightning Question"
>
> RH> From: richardharrison@webtv.net (Richard Harrison)
> RH> Xref: core-easynews rec.radio.amateur.antenna:217540
>
> RH> A conductor can offer inductive reactance in addition to its
> RH> resistance. Put some twists and turns in the coax. A coil`s inductance
> RH> is proportional to the square of its number of turns.
>
> I think you are missing one thing that seems to be much too obvious.
> Air conducts 10 times better than the plastic insulation in the coax
> and the lightning will simply jump over the twists and turns, without
> the slightest effort.
>
> What you really want to do is to give lightning an alternate path that
> conducts better than the air, so that your coax is ignored.
>
> However, I think you are right in giving the coax path more inductance
> because the lightning leader is a high frequency phenomenon and it is
> the leader that initiates the path for the lightning strike.
>
> A*s*i*m*o*v
>
> ... Always remember you're unique - just like everyone else.
>

1366. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:02:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <yeU_e.694$sL3.173@newssvr13.news.prodigy.com>
Source record: 69863

Dr Nancy Kohen PhD Freaktal Genius wrote:
> You will all be served and my atorney says you will all be banned from news
> grups as well as being enjoyined from ever speaking the word FRACTAL (Pat.
> Pending).

But, but, but, Nancy, I like fractals and recently posted
a 160m fractal dipole that is within 0.3 dB of the
performance of a full-sized 160m dipole. I don't have a
life so I spend a lot of time on this newsgroup. I'll
waste away to nothing if I don't get my r.r.a.a fix.

1367. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:09:52 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2a32$433c1249$97d56a13$3240@ALLTEL.NET>
Source record: 69864

To make an antenna wideband, you have to decrease the Q, Making the antenna "fatter" is one of the approaches.

For example a standard 12 gauge wire dipole at 3.8 MHz has a bandwidth of about 120 KHz (defined as the 2:1 SWR points) . Making a cage 12" in diameter with 6 wires and depending on height you can cover almost 300 KHz. Use two dipoles with the ends separated by 15 feet and you can cover almost all of the band.

What specific frequencies are you trying to cover? How much SWR can you stand, and what is the link budget?

"Harry" <harry0d88@aol.com> wrote in message
news:1128006269.858078.317850@g47g2000cwa.googlegroups.com...
> What is the key factor that will make an antenna wide-band?
> (compared with narrow-band antennas)
>
> The more I read about UWB antennas, the more I get confused.
> (For example: http://www.uwbgroup.ru/pdf/37schantz.pdf
> http://ultra.usc.edu/New_Site/MURI/Schaubert0502pptpdf.pdf
>)
>
> I believe there must be a simple principle behind all these different
> wide-band antennas. Am I right?
>
> -- Harry
>

1368. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:21:18 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <73063$433c14ac$97d56a13$3806@ALLTEL.NET>
Source record: 69865

Any antenna that only requires an additional 10 towers to support is worthy
of attention.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:yeU_e.694$sL3.173@newssvr13.news.prodigy.com...
> Dr Nancy Kohen PhD Freaktal Genius wrote:
> > You will all be served and my atorney says you will all be banned from
news
> > grups as well as being enjoyined from ever speaking the word FRACTAL
(Pat.
> > Pending).
>
> But, but, but, Nancy, I like fractals and recently posted
> a 160m fractal dipole that is within 0.3 dB of the
> performance of a full-sized 160m dipole. I don't have a
> life so I spend a lot of time on this newsgroup. I'll
> waste away to nothing if I don't get my r.r.a.a fix.

1369. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:32:54 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <KGU_e.10012$GK2.3831@lakeread07>
Source record: 69866

Richard Clark wrote:

> On Wed, 28 Sep 2005 20:44:15 -0700, N7ZZT - Eric Oyen
> <n7zzt@127.0.0.1> wrote:
>
>>can you send me an e-mail on this subject in private. I am working on a
>>small project that seeks to tune in HDTV signals (or standard tv in
>>general) and I would like some input on how to design a good fractal that
>>would work with a minimum of complexity...
>
> Hi Eric,
>
> Yes, but the purpose of a newsgroup is to enlarge the general
> understanding of a topic.
>
> As for your topic of HDTV signals, the simple answer is one of the
> oldest fractals (which is one of those claim grabs where the bastard
> technology adopts its own grandparents for legitimacy's sake alone).

yeah. well, opinions can do that.

>
> Try the Log Periodic Dipole Array. It is certainly wide band, but I'm
> not so sure this equates to phase distortion free - if that is a
> problem. I cannot say the problem interests me because I'm of the
> opinion that HDTV will be serving HD crap. I long ago gave up on
> cable because I was no more interested in 200 channels of crap than a
> dozen or so over the air. Netflix is cheaper.

The application I am looking at makes an LPDA impractical (I am talking
fortable/hand held operation here).

>
> As for wide band fractals:
>
> Bandwidth goes contrary to small size. Fractals boast of being small.
> Widebandedness does not come with small, even if it does come with
> being fractal. The design alluded to in another posting with this
> kind of wide bandwidth:
>
http://www.qsl.net/kb7qhc/antenna/fractal/Constant%20Fractal/2nd%20Order/Sierpinski%2016M%
20wire%202nd%20order%20377%20Ohm%20SWR%20Special.gif
> covers EVERY VHF TV channel with below 2:1 SWR.

ok. something to look at.....

>
> This design comes with a huge price. It consumes 64 meters of wire!

thats a lot of wire man......

>
> If you are looking for gain, you are looking at size again. If not in
> the overall spread, then in the overall outline. Fractals only boast
> of size (when they are smaller) because they can be tailored for a
> match. TV antennas, for years, have long solved matching problems.

not so much gain and usability in portable (read that as unobtrusive)
operation.

>
> If you are looking for radiation lobe characteristics, fractals are
> not notably intuitive models of symmetry. In fact they are as
> perverted in their kinky patterns as they are with their kinky wire.

not planning for transmit with one of these things. strictly a receiver
sty;e setup.

>
> You could build an array from these loops:
> http://www.qsl.net/kb7qhc/antenna/fractal/Square%20Gasket/index.htm
> which performs just as well or better than its larger, conventional
> design, but you clearly state above:
>>would work with a minimum of complexity...
> which negates nearly the entire topic.
>
> If none of this dissuades you, write me offline and we will keep it
> there. Certainly there is a limit to the interest online, and it
> usually dies at about the 5 or 6th post in the thread as it did here.
> The only thing that kept it alive in times past was the carnival
> atmosphere and hucksterism.

well, let me do a little reading and I'll get back to you.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

1370. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:40:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhh5di$dn5$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69867

> What is the key factor that will make an antenna wide-band?
> (compared with narrow-band antennas)
>
> I believe there must be a simple principle behind all these
different
> wide-band antennas. Am I right?

==========

Harry, Yes, you are right.

Simply suppress resonant tendencies. Make antenna Q = 1 such that the feedpoint impedance is always a pure resistance at all working frequencies.

The most simple, most wide-band antenna is just a wire terminated in its characteristic impedance Zo. Simpicity Rules.

Unfortuately and inevitably, at least 50% of the Tx power is dissipated in the termination. But if power is inexpensive, who cares?

There are compromises between bandwidth, directional properties, service area, power-efficiency and physical construction. But there is always more lost on the roundabouts than is gained on the swings.

At HF, when it comes to compromises, you can't beat a 1/2-wave horizontal dipole or a 1/4-wave vertical.

I trust the above somewhat vague information will be of interest. Perhaps further details can be provided by people having practical experience of particular cases such as Fractal and E-H antennas.

Reg, G4FGQ.

1371. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 16:42:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <NPU_e.703$sL3.311@newssvr13.news.prodigy.com>
Source record: 69868

Fred W4JLE wrote:
> Any antenna that only requires an additional 10 towers to support is worthy
> of attention.

That's the basic reason one will not see many fractal
antennas used for HF antennas and practicality was
not the context. But on a higher frequency, with self
supporting material, and bending it down instead of out,
it makes more sense, e.g. 6m, ~5 ft. long instead of ~9
ft. long. Consider the turning radius for a 6m fractal
beam Vs a full-sized one.
--
73, Cecil http://www.qsl.net/w5dxp

1372. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 17:07:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhh71b$5n9$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69869

The standard of discussion on Fractals on this newsgroup certainly
relegates the Fractal antenna to the place it deserves.

But it has not yet descended to the level of the E-H.

Get yourselves organised, Try harder!

Reg.

1373. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 17:12:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhh7ar$k08$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69870

It's so simple to derive the value of 73 ohms.
Just divide 146 by 2.
Or multiply 36.5 by 2.
There are other ways of doing it.

1374. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 17:32:43 UTC
From: David Thompson <thompson@mindspring.com>
Message-ID: <%yV_e.6858$q1.5550@newsread3.news.atl.earthlink.net>
Source record: 69871

BPL sound so nice until you get to the pollution aspect (RFI).

As I told the Atlanta based Earthlink CEO, hams will be a nuisance until one of us ingresses (not really as its not inside a cable) and blocks out the entire system. Then the stuff will really hit the fan. A national article stating that ham radio op KX3XXX imterfered with the city of YYYYY's cable system
would do it,

73 Dave K4JRB

"Cecil Moore" <mycall@arrl.net> wrote in message
news:88U_e.693$sL3.385@newssvr13.news.prodigy.com...
> http://apnews.myway.com/article/20050929/D8CTUA3O7.html

1375. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 17:40:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhh8tk$bt4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69872

Cec, if you divide the well-known 377 ohms by 5.164, which is the
square-root of 26.67, you get precisely 73 ohms.

What's the problem?

Reg

1376. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 17:44:42 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-5534F7.12444229092005@newsclstr02.news.prodigy.com>
Source record: 69873

In article <11j8isc2vp1so0f@corp.supernews.com>,
"Rod Maupin" <gridman@ywave.com> wrote:

> I posted this on the wrong newsgroup a few days ago and no one has answered,
> so I'll try here.
>
> I have a Butternut Vertical (as a secondary antenna) and a regular radial
> system set up with it. I also have a metal roof on my house (here in the
> country in Western Washington). I have been wondering if I can use the
> metal roof as the radial system/ground plane for this antenna. Haven't
> tried it yet. Would this work or would it detune the antenna?
>
> What do you guys think?
>
> Rod KI7CQ

Rod,

Several years ago I tried a 14AVQ vert next to the house with a big
jumper to the tin roof. Boy was that a mistake! It did not work at
all. I gave up on the vert and installed a tower and beam.

FYI, the best improvement ever made to the beam was when we replaced
the tin roof with normal singles. It was like getting a new antenna too.

Good luck with the tin roof. BTW, it did work pretty good with a mag
mount VHF/UHF antenna. HiHi

Dick AA5VU

1377. KenPro 050

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 17:48:02 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <3i9oj15r6qcu4anpc9g947cm5o0dlmpsnl@4ax.com>
Source record: 69874

Has anyone had any experience with the KenPro 050 thrust bearing? I am thinking of using one on a 40 lb monobander, with a K of about 700, three feet above the roator, on a 2" mast, with the antenna extending four feet above the bearing. Since the antenna is lights, I really don't need the bearing to support the vertical weight of the antenna and mast.

They are about a quarter of the price of a TB-2.

Win, w0lz

1378. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 17:57:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <bWV_e.1535$Fi3.341@newssvr29.news.prodigy.net>
Source record: 69875

Cecil Moore wrote:
> Consider the turning radius for a 6m fractal
> beam Vs a full-sized one.

Just modeled a quickie using EZNEC. The fractal beam has two elements with 6 ft. tip to tip spaced two feet apart. Each element looks like this typical fractal with the reflector slightly longer than the driven element:

```
1' 1' 1' 1' 1' 1'
----+ +----x----+ +----
1'| | | |
+----+ +----+
```

Each line is one foot long and the feedpoint is at 40 ft. On 53 MHz, this two element fractal beam has a gain of 12.6 dBi at 7 deg. TOA with a F/B ratio of 18.5 dB. Looks pretty functional to me.
--
73, Cecil http://www.qsl.net/w5dxp

1379. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:00:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CYV_e.1538$Fi3.435@newssvr29.news.prodigy.net>
Source record: 69776

Reg Edwards wrote:
> The standard of discussion on Fractals on this newsgroup certainly
> relegates the Fractal antenna to the place it deserves.

Reg, take a look at my 2-el fractal 6m beam and tell me
what's wrong with 12.6 dBi gain, TOA=7 deg, F/B=18.5 dB.
--
73, Cecil http://www.qsl.net/w5dxp

1380. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:04:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <G0W_e.1550$Fi3.186@newssvr29.news.prodigy.net>
Source record: 69777

Reg Edwards wrote:
> Cec, if you divide the well-known 377 ohms by 5.164, which is the
> square-root of 26.67, you get precisely 73 ohms.

But, but, but, Reg, you said the feedpoint impedance of
an infinite dipole is 1200 ohms, or some such. That's
very close to 377 ohms times pi.
--
73, Cecil http://www.qsl.net/w5dxp

1381. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:07:11 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jobam4aet5f5f@corp.supernews.com>
Source record: 69778

Dr Nancy Kohen PhD Freaktal Genius wrote:

> After consultashun with my atorney, I am sooing the entire news group. You
> have used the word FRACTAL (Pat. Pending) and have made nasty remarks that
> hurt my feelings.
>
> You will all be served and my atorney says you will all be banned from news
> grups as well as being enjoyined from ever speaking the word FRACTAL (Pat.
> Pending).
>
> Govern yourselfes accordianly
>
> Dr Nancy Kohen PhD Fractal Genius DXCC and the insperation for the janitor
> in "Contact"
>
>
> "David G. Nagel" <nagel@core.com> wrote in message
> news:11jmc9on86rvfcc@corp.supernews.com...
>
>>Cecil Moore wrote:
>>
>>>K wrote:
>>>
>>>
>>>>Boy, you guys are 'playing' with fire. You're gonna get the 'dragon'
>>>>out of his lair yet, and that 'mess' will start all over again! har.
>>>
>>>
>>>Heh, heh, the 'F' word on this newsgroup is "fractal". :-)
>>
>>Let the games begin......
>
>
>
Hay I just said, and I quote, "Let the games begin.....". Any threats
to sue will be considered meritless and a counter suit will be initiated.

1382. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:09:30 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <kqaoj1tmok1apmhlbukrbk7uq3m9vt82lb@4ax.com>
Source record: 69779

Years ago in Europe I installed a phased quarter wave vertical array
for 20 meters on an appartment house complex metal roof pointed to
the states. It was very close to 50 ohms at the feed point. The
antenna worked great. The metal was actually under about an inch of
roofing compound, but was well grounded.

Surely, it is worth a try with the Butternut.

Win, w0lz

On Fri, 23 Sep 2005 11:38:03 -0700, "Rod Maupin" <gridman@ywave.com>
wrote:

>I posted this on the wrong newsgroup a few days ago and no one has answered,
>so I'll try here.
>
>I have a Butternut Vertical (as a secondary antenna) and a regular radial
>system set up with it. I also have a metal roof on my house (here in the
>country in Western Washington). I have been wondering if I can use the
>metal roof as the radial system/ground plane for this antenna. Haven't
>tried it yet. Would this work or would it detune the antenna?
>
>What do you guys think?
>
>Rod KI7CQ
>

1383. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:28:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhhbopkul1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69780

Ham radio is gradually on its way out. The authorities will not allow it to interfere with other forms of radio transmission.

In any case, insofar as the authorities are concerned, ham radio is an insecure means of communication. It is difficult to intercept, monitor and control the traffic which passes over it.

Even radio broadcasting is being pushed onto the Internet. It will be noticed the BBC international broadcasts are not now beamed to the USA but are advertised as being readily available to USA listeners via the Internet. The Internet is easily intercepted, monitored and controlled by the authorities. Whoever THEY may be.

They who own and control the means of communication, including that via satellites, will rule the Earth.

Reg.

1384. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:38:54 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <Hv6dnYuPds8qqqHeRVn-tg@comcast.com>
Source record: 69784

That's when I put a small antenna in and get a large antenna out. :-)

Reg Edwards wrote:

>>What's antenna gain?
>
> ============================
> It's whatever the writer wishes it to be.
>
>

1385. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:41:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhhcfunbf1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69781

```
> But, but, but, Reg, you said the feedpoint impedance of
> an infinite dipole is 1200 ohms, or some such. That's
> very close to 377 ohms times pi.
================================

Cec, for once, you ageed with me.

But, but, but, coincidences in arithmetic are certain to occur.
----
Reg.
```

1386. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:43:20 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <C7udnd_bUuNfpaHeRVn-tA@comcast.com>
Source record: 69786

It provides a Faraday cage that shields against nearby stikes.

Dave wrote:

> and what is that really supposed to do?
>
> "Ham op" <hamop@comcast.net> wrote in message
> news:Qs-dnSliAYYUH6feRVn-iQ@comcast.com...
>
>>Another bit of good advice. Run your coax down the tower on the INSIDE of
>>the tower [in the space created by the three legs].
>>
>>Steve Nosko wrote:
>>
>>>Lightning generally goes wherever it decides. However, I have been
>>>advised
>>>that it generally dislikes sharp turns in conductors it happens to
>>>follow.
>>>Think of this as a "quarter turn" and as a result represents some
>>>inductance
>>>and therefore a little more impedance that the straight path. With these
>>>super high currents, that's a lot of magnetic field around the conductor.
>>>A
>>>look at the mag field and that is must be compressed inside the quarter
>>>turn, should help you to see this concept. With this in mind, the turn
>>>at
>>>the bottom of the tower can be where a coax (shield)ground can go, thus
>>>encouraging conduction to ground. Having the required tower ground at
>>>this
>>>point also 'encourages" the blast of current to take that path rather
>>>than
>>>the coax.
>>>
>>>
>>>
>>>Remember, however, that
>>>
>>>1- There will still be significant voltage on the coax, even if the
>>>strike
>>>goes down to the closer tower ground. This will be up to and can exceed
>>>any
>>>suppressor placed there.
>>>
>>>
>>>

>>>2- This current can and does produce very large induced currents in ALL
>>>near-by conductors, so any and all nearby wires will sustain high
>>>voltages.
>>>(many a time I have heard a small click in the house which happens along
>>>with a near-by strike (not delayed) Flash simultaneous with click, then
>>>boom fraction of a second later.
>>>
>>>
>>>
>>>3- Put an analog VOM on your antenna some time - either when rain is near
>>>or
>>>not. It can be on the ma ranges or volts, doesn't matter because of the
>>>way
>>>they are made. For a DVM only the ma range, but it's not as dramatic as
>>>the
>>>needle moving. Watch it gradually build up to some current (micro amps
>>>to
>>>ma) Then it will collapse or go negative when lightning strikes near by.
>>>Try connecting the meter across the antenna feed line or from either/both
>>>feedline sides to ground. Tx disconnected.
>>>
>>>
>>>
>>>
>>>
>>>73, Mr. Wizzard, K9DCI
>>>
>>>"Ham op" <hamop@comcast.net> wrote in message
>>>news:3dmdnRMzg6RrC6XeRVn-jQ@comcast.com...
>>>
>>>
>>>>rob wrote:
>>>>
>>>>
>>>>
>>>>>N7ZZT - Eric Oyen wrote:
>>>>>
>>>>>
>>>>>
>>>>>>wizard12342002@yahoo.com wrote:
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>>>Suppose I have an antenna some distance from the house. I run the
>>>>>>>transmission line down from the antenna, bury the line, run it
>>>>>>>underground to the house, place a lightning arrestor and ground just
>>>>>>>outside the house, then run the transmission line up the side of the
>>>>>>>house to the operating position on the second floor. Does anyone see a
>>>>>>>problem with this arrangement? I can't imagine that a lightning would

>>>>>>>"want" to travel back up toward the operating position when it has a
>>>>>>>good ground (at the arrestor) closer to the antenna.
>>>>>>>
>>>>>>>-JJ
>>>>>>
>>>>>>
>>>>>>you would be better to place a lightning arrestor at the tower (and
>>>>>>ground
>>>>>>the tower as well) and perhaps 1 or 2 along the coax to your house (all
>>>>>>ground rodded). This method is referred to as "defense in depth"
>>>>>
>>>>>
>>>>>.
>>>>>Wouldn't this encourage lightning to go through your tower? (with the
>>>>>risk of the concrete holding the tower up being cracked/ or worse)
>>>>>I would think that putting earths a safe distance away from the tower's
>>>>>support would be better ? (BTW I am not an expert!)
>>>>>Not sure how they protect HT Pylons here in the UK - or even that they
>>>>>are protected?
>>>>>
>>>>>Rob
>>>>
>>>>Here in the USA the National Electrical Code [NEC] requires that each
>>>>leg of the tower be grounded at the tower approximately 1 meter from the
>>>>tower. Each of the three ground rods shall be 2.5 meters long and
>>>>connected together by a #6 AWG wire. The tower shall also be connected
>>>>to the house 'earthing' connection at the service entrance.
>>>>
>>>>The coax from the tower to the house has a directly clamped, not
>>>>soldered, connection from the braid to a ground rod [also 2.5 meters
>>>>long] where it enters the house. [RF travels on the inside of the braid,
>>>>so this connection does not impact RF performance.] This ground rod also
>>>>connects to the 'earthing' connection.
>>>>
>>>>Your requirements in GB may be different.
>>>>
>>>>Lightning goes wherever lightning wants to go. After installing your
>>>>tower disconnect everything from it when not in use; radios, coax cable,
>>>>control cable, etc.
>>>>
>>>
>>>
>>>
>
>

1387. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:45:32 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhhcoc$1fj0$1@f04n12.cac.psu.edu>
Source record: 69782
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Zoran Brlecic wrote:

> Matt Osborn wrote:
>
>> You're walking on an assumption that is called gravity. Just like
>> G-d, plenty of evidence but no proof.
>
>
> What pisses me off about your posts is this almost deliberate attempt to
> obfuscate by equivocating, word playing and substituting terms which are
> incompatible. You keep doing it in almost every post and it gets tired
> fast.
> Like, for instance, in the example above: "plenty of evidence but no
> proof" is meaningless drivel. Of all the scientific disciplines, only
> mathematics deals with proof. Others, physics included, deal with
> evidence which is derived from a direct or indirect observation of
> certain phenomena and is the basis for a theory, such as the
> gravitational theory, for example.
> Therefore, to say that there is "no proof" for gravity is gibberish,
> even in the solipsist sense.

Actually, something that we call gravity undeniably exists. While our understanding of it is incomplete, there is no doubt that it exists. It is there, we see what happens if we drop someting in an area where "gravity" is strong, and in areas where it is virtually nonexistant.

The "proof" if you will, is in the explanation and understanding of what we call gravity, not it's existance.

Now God on the other hand, gives no real evidence at all for existence. Miracles are manifestations of chance, and many things that were once attributed to divine intervention have found ready explanations after we learn more about the universe.

So the statement was incorrect in the first place.

- Mike KB3EIA -

1388. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:51:00 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhhd2k$1fj0$2@f04n12.cac.psu.edu>
Source record: 69783

Cecil Moore wrote:

> http://apnews.myway.com/article/20050929/D8CTUA3O7.html

One of the strangest things I've seen in the computer world is that now that we have all been sold on wireless, they now want us to connect to a wall outlet again!

For the non-computer savvy, being disconnect from the wall is an important thing (probably is for a lot of the savvy also)

- mike KB3EIA -

1389. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 18:52:09 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhhd4p$1fj0$3@f04n12.cac.psu.edu>
Source record: 69785

Reg Edwards wrote:

> Ham radio is gradually on its way out. The authorities will not allow
> it to interfere with other forms of radio transmission.
>
> In any case, insofar as the authorities are concerned, ham radio is an
> insecure means of communication. It is difficult to intercept, monitor
> and control the traffic which passes over it.
>
> Even radio broadcasting is being pushed onto the Internet. It will be
> noticed the BBC international broadcasts are not now beamed to the USA
> but are advertised as being readily available to USA listeners via the
> Internet. The Internet is easily intercepted, monitored and
> controlled by the authorities. Whoever THEY may be.
>
> They who own and control the means of communication, including that
> via satellites, will rule the Earth.

Reg! So gloomy today....

- Mike KB3EIA -

1390. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:01:43 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhhdmn$1gte$1@f04n12.cac.psu.edu>
Source record: 69787

Cecil Moore wrote:

> Cecil Moore wrote:
>
>> Consider the turning radius for a 6m fractal
>> beam Vs a full-sized one.
>
>
> Just modeled a quickie using EZNEC. The fractal beam
> has two elements with 6 ft. tip to tip spaced two
> feet apart. Each element looks like this typical
> fractal with the reflector slightly longer than the
> driven element:
>
> 1' 1' 1' 1' 1' 1'
> ----+ +----x----+ +----
> 1'| | | |
> +----+ +----+
>
> Each line is one foot long and the feedpoint is at
> 40 ft. On 53 MHz, this two element fractal beam has
> a gain of 12.6 dBi at 7 deg. TOA with a F/B ratio
> of 18.5 dB. Looks pretty functional to me.

Isn't that straining the definition of fractal a bit?

Is it possible then that my latest antenna, an OCF dipole, is a fractal?

_______ x ___________________
| |
| |
| |

It has those hangy-down ends, so it sure looks a good bit like yours.

I don't really consider an antenna as fractal until the wires start
folding back toward the center feed in their meandering.

Hey! is a folded dipole a fractal antenna?

- Mike KB3EIA -

1391. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:09:35 UTC
From: Dave <noone@nowhere.com>
Message-ID: <zMidneSNmdZlpqHeRVn-gw@crocker.com>
Source record: 69788

"Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
news:dhhdmn$1gte$1@f04n12.cac.psu.edu...
> Cecil Moore wrote:
>
>> Cecil Moore wrote:
>>
>>> Consider the turning radius for a 6m fractal
>>> beam Vs a full-sized one.
>>
>>
>> Just modeled a quickie using EZNEC. The fractal beam
>> has two elements with 6 ft. tip to tip spaced two
>> feet apart. Each element looks like this typical
>> fractal with the reflector slightly longer than the
>> driven element:
>>
>> 1' 1' 1' 1' 1' 1'
>> ----+ +----x----+ +----
>> 1'| | | |
>> +----+ +----+
>>
>> Each line is one foot long and the feedpoint is at
>> 40 ft. On 53 MHz, this two element fractal beam has
>> a gain of 12.6 dBi at 7 deg. TOA with a F/B ratio
>> of 18.5 dB. Looks pretty functional to me.
>
>
> Isn't that straining the definition of fractal a bit?
>
> Is it possible then that my latest antenna, an OCF dipole, is a fractal?
>
> _______ x ___________________
> | |
> | |
> | |
>
>
> It has those hangy-down ends, so it sure looks a good bit like yours.
>
> I don't really consider an antenna as fractal until the wires start
> folding back toward the center feed in their meandering.
>
> Hey! is a folded dipole a fractal antenna?
>

> - Mike KB3EIA -
>
sure, even a non-folded dipole is a fractal.

1392. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:09:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jqeoj1dfs48bs2arkon96p9a79l07gdl3d@4ax.com>
Source record: 69789

On Thu, 29 Sep 2005 15:01:43 -0400, Michael Coslo
<mjc5@enoughalready.psu.edu> wrote:
>Is it possible then that my latest antenna, an OCF dipole, is a fractal?

Hi Mike,

As it so happens (and if properly choked) your OCF dipole is probably
superior to many fractals on their own terms of being multi resonant.
And regrettably yes, that would then make it fractal by appropriation
and claim by the fractal community (something of the Borg mentality
there).

73's
Richard Clark, KB7QHC

1393. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:22:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhhetk$2h6$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69790

> Reg, take a look at my 2-el fractal 6m beam and tell me
> what's wrong with 12.6 dBi gain, TOA=7 deg, F/B=18.5 dB.
> --
==========
Cec, You know as well as I do, take-off angles are meaningless regarding who might, by some remote coincidence, be at a distance and in a direction to receive.

Front-to-back ratios are equally meaningless. Nobody takes any notice of them when a slight change in frequency, a minute change in antenna dimensions, or the wind direction acting on an antenna is taken into account.

Hardly parameters which can sensibly be used to compare one antenna with another.

I mention this here only for the benefit of novices who may be misled by your comments. ;o)

Reg.

1394. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:26:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <LdX_e.1571$Fi3.601@newssvr29.news.prodigy.net>
Source record: 69791

Michael Coslo wrote:
> Isn't that straining the definition of fractal a bit?

Nope, that's a well known fractal pattern. It even has
a name within the fractal community but it slips my
mind at the moment. It might be a Koch or Hilbert
pattern, I forget. I haven't looked at this stuff in
a coon's age.

```
----+ +----x
| |
+----+
```

That's a first level iteration pattern. The second level
iteration would replace each of those one foot lines with
the same overall pattern as above - something like:

```
----+ +----+ +----+ +----x
| | | | | |
+----+ +----+ +----+ +----+
| |
+----+ +----+
| |
+----+ +----+
| |
+----+
```

There were five wires in the first level iteration. Each of
those five wires is replaced with the original basic pattern.
Do you see five repeats of the original pattern in the above?
--
73, Cecil, http://www.qsl.net/w5dxp

1395. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:33:06 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <SjX_e.16000$Xl2.8950@twister.nyroc.rr.com>
Source record: 69792
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Why is it you guys insist on continuing this conversation? Take it to
e-mail or take it to a newsgroup where it would be not off-topic.

"Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
news:dhhcoc$1fj0$1@f04n12.cac.psu.edu...
>
> Actually, something that we call gravity undeniably exists. While our
> understanding of it is incomplete, there is no doubt that it exists. It is
> there, we see what happens if we drop someting in an area where "gravity"
> is strong, and in areas where it is virtually nonexistant.
>
> The "proof" if you will, is in the explanation and understanding of what
> we call gravity, not it's existance.
>
> Now God on the other hand, gives no real evidence at all for existence.
> Miracles are manifestations of chance, and many things that were once
> attributed to divine intervention have found ready explanations after we
> learn more about the universe.
>
> So the statement was incorrect in the first place.
>
> - Mike KB3EIA -
>

1396. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:40:33 UTC
From: richardharrison@webtv.net
Message-ID: <13320-433C4331-78@storefull-3255.bay.webtv.net>
Source record: 69794

Ian Jackson wrote:
"What is the impedance at the centre of an infinitely long dipole in free space?

It is the antenna`s Zo. This depends on the size of the conductor used to make the dipoole.

Arnold B. Bailey has already worked all this out and presents it in his 1950 edition from Rider`s of "TV and Other Receiving Antennas".

Like the Zo of a transmission line, antenna Zo has nothing to do with reflections and terminations. When you first apply power, energy must flow into the antenna at some definite voltage to current ratio. This is the surge impedance or Zo. If the antenna or line is uniform and infinitely long, the energy sent away is never heard from again. Zo is the only impedance anywhere.

Page 345 gives the surge impedance in ohms for a balanced antenna as:

Zo = 276 log 1/P

P is the circumference of the antenna rod, or periphery, expressed as a fraction of the free-space wavelength (see page 342) This may sound goofy but Bailey has his reasons.

Bailey`s graph on page 345 gives dipole impedances from 70 ohms to 680 ohms for rod peripheries from 1 wavelength down to 0.00001 wavelength

If you have no reflections or standing waves, the impedance you calculate should be the Zo.

Best regards, Richard Harrison, KB5WZI

1397. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 19:43:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <cf6fb$433c441f$97d56a13$10106@ALLTEL.NET>
Source record: 69793

Is that you Phil?

"Cecil Moore" <mycall@arrl.net> wrote in message
news:bWV_e.1535$Fi3.341@newssvr29.news.prodigy.net...
> Cecil Moore wrote:
> > Consider the turning radius for a 6m fractal
> > beam Vs a full-sized one.
>
> Just modeled a quickie using EZNEC. The fractal beam
> has two elements with 6 ft. tip to tip spaced two
> feet apart. Each element looks like this typical
> fractal with the reflector slightly longer than the
> driven element:
>
> 1' 1' 1' 1' 1' 1'
> ----+ +----x----+ +----
> 1'| | | |
> +----+ +----+
>
> Each line is one foot long and the feedpoint is at
> 40 ft. On 53 MHz, this two element fractal beam has
> a gain of 12.6 dBi at 7 deg. TOA with a F/B ratio
> of 18.5 dB. Looks pretty functional to me.
> --
> 73, Cecil http://www.qsl.net/w5dxp

1398. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 20:04:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <5NX_e.1591$Fi3.75@newssvr29.news.prodigy.net>
Source record: 69795

Fred W4JLE wrote:
> Is that you Phil?

:-) I actually attended a meeting with the Fractenna
folk at Intel back in the 90's and did some experiments
with small fractal antennas inside an anechoic chamber.
--
73, Cecil, http://www.qsl.net/w5dxp

1399. Explain Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 20:21:16 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <CtWdnT9nitEh0aHeRVn-sQ@adelphia.com>
Source record: 69796

Would someone be kind enough to explain a balun both voltage and current?

TY

--

Bill
KI4HPZ

1400. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 20:23:43 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e1a8a$433c4d7e$97d56a13$25382@ALLTEL.NET>
Source record: 69797

Like the old joke about the goat, I don't think I would have told that!

"Cecil Moore" <mycall@arrl.net> wrote in message
news:5NX_e.1591$Fi3.75@newssvr29.news.prodigy.net...
> Fred W4JLE wrote:
> > Is that you Phil?
>
> :-) I actually attended a meeting with the Fractenna
> folk at Intel back in the 90's and did some experiments
> with small fractal antennas inside an anechoic chamber.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

1401. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 20:34:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <8dY_e.1601$Fi3.1037@newssvr29.news.prodigy.net>
Source record: 69798

Richard Harrison wrote:
> Page 345 gives the surge impedance in ohms for a balanced antenna as:
>
> Zo = 276 log 1/P
>
> Bailey`s graph on page 345 gives dipole impedances from 70 ohms to 680
> ohms for rod peripheries from 1 wavelength down to 0.00001 wavelength

Is the graph impedance looking into 1/2 of the dipole?
276 log 1/0.00001 = 1380 ohms, just about double the 680 ohm value.
--
73, Cecil, http://www.qsl.net/w5dxp

1402. Re: Explain Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 20:39:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PhY_e.1603$Fi3.376@newssvr29.news.prodigy.net>
Source record: 69799

Jennie wrote:
> Would someone be kind enough to explain a balun both voltage and current?

http://www.w2du.com/r2ch21.pdf

http://eznec.com/misc/ibalun.txt
--
73, Cecil, http://www.qsl.net/w5dxp

1403. Re: Explain Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 20:57:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <_yY_e.1606$Fi3.1408@newssvr29.news.prodigy.net>
Source record: 69800

Jennie wrote:
> Would someone be kind enough to explain a balun both voltage and current?

Also http://www.eznec.com/Amateur/Articles/Baluns.pdf
--
73, Cecil, http://www.qsl.net/w5dxp

1404. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 21:11:04 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433c2eae@fidonet.org>
Source record: 69801

"Cecil Moore" bravely wrote to "All" (29 Sep 05 06:56:26)
--- on the heady topic of "Re: UWB pulse signal has no DC? Why?"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:217576

CM> Richard Clark wrote:
> On Thu, 29 Sep 2005 03:26:28 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>Your flashlight is NOT generating DC coherent photons.
>
> Mine does. Like I said, yours probably needs batteries, or perhaps it
> is suffering a dimbulb behind the on/off switch.

CM> Assuming your flashlight does generate photons with a frequency
CM> of zero Hz, how do you detect them?

With a field mill or a moving coil of wire?

A*s*i*m*o*v

... I installed a sky-light; now the folks above me are mad!

1405. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 21:21:42 UTC
From: Harry <harry0d88@aol.com>
Message-ID: <1128028902.712739.210920@f14g2000cwb.googlegroups.com>
Source record: 69802

I have found some useful information in this paper:

http://www.winlab.rutgers.edu/pub/docs/focus/UWB-G.Lu.pdf

It says that there are basically two ways to make the antenna response
broader
(like the log-periodic antenna or the biconical antenna) : combining
and smoothing, ...

Richard, Fred and Reg, thanks!

-- Harry

1406. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 22:48:07 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <5KednRdRTe278qHeRVn-tg@adelphia.com>
Source record: 69803
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

N2EY@AOL.COM wrote:
> Michael Coslo wrote:
>
>>Cecil Moore wrote:
>>
>>
>>>Matt Osborn wrote:
>>>
>>>
>>>>Maybe we should rebuild New Orleans in England, it would balance the
>>>>scales.
>>>
>>>
>>>We indeed should rebuild New Orleans somewhere that is
>>>not below sea level.
>
>
> How about Death Valley?

Death Valley is not a good place to build a town. Most sub-sea level
locales are really bad places to build, whether there is a flooding
danger or heat issues.
>
>> Absolutely. I don't support money going to rebuilding NO > in it's
>>present spot.
>
>
> I agree 100%. But you watch, the money will be poured into it just like
> the water.

Oh yeah. And the people rebuilding will be hailed as some sort of
neversaydie heroes.

- Mike KB3EIA -

1407. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 22:51:38 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <5KednRZRTe1q8qHeRVn-tg@adelphia.com>
Source record: 69804
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Pat Stevens wrote:
> Why is it you guys insist on continuing this conversation? Take it to
> e-mail or take it to a newsgroup where it would be not off-topic.

I dunno, Why do you top post?

But seriously, you should have a filter on your mail reader that will allow us to post, and then you can just ignore the thread, or simply kill file all of us.

- Mike KB3EIA -

1408. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 22:56:26 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <Mc-dnVlXYdiF7KHenZ2dnUVZ_tKdnZ2d@adelphia.com>
Source record: 69805
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> On Thu, 29 Sep 2005 14:45:32 -0400, Michael Coslo
> <mjc5@enoughalready.psu.edu> wrote:
>
>
>>
>>Zoran Brlecic wrote:
>>
>>
>>>Matt Osborn wrote:
>>>
>>>
>>>>You're walking on an assumption that is called gravity. Just like
>>>>G-d, plenty of evidence but no proof.
>>>
>>>
>>>What pisses me off about your posts is this almost deliberate attempt to
>>>obfuscate by equivocating, word playing and substituting terms which are
>>>incompatible. You keep doing it in almost every post and it gets tired
>>>fast.
>>>Like, for instance, in the example above: "plenty of evidence but no
>>>proof" is meaningless drivel. Of all the scientific disciplines, only
>>>mathematics deals with proof. Others, physics included, deal with
>>>evidence which is derived from a direct or indirect observation of
>>>certain phenomena and is the basis for a theory, such as the
>>>gravitational theory, for example.
>>>Therefore, to say that there is "no proof" for gravity is gibberish,
>>>even in the solipsist sense.
>>
>>
>> Actually, something that we call gravity undeniably exists. While our
>>understanding of it is incomplete, there is no doubt that it exists. It
>>is there, we see what happens if we drop someting in an area where
>>"gravity" is strong, and in areas where it is virtually nonexistant.
>>
>> The "proof" if you will, is in the explanation and understanding of
>>what we call gravity, not it's existance.
>>
>> Now God on the other hand, gives no real evidence at all for existence.
>>Miracles are manifestations of chance, and many things that were once
>>attributed to divine intervention have found ready explanations after we
>>learn more about the universe.

>>
>> So the statement was incorrect in the first place.
>>
>> - Mike KB3EIA -
>
>
> I'm afraid you're still working with assumptions. You believe your
> assumptions of gravity are accurate, but for all we know they may be
> entirely incorrect.

My assumptions do not negate the existence of gravity, whether those assumptions are right or wrong. It exists, it's effects are measurable and known, and it has a profound daily influence on our lives. Quite quantifiable.

- Mike KB3EIA -

1409. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:26:21 UTC
From: kashe@sonic.net
Message-ID: <hvtoj11gmkb7441anirtlge1b7klo259h5@4ax.com>
Source record: 69806
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 28 Sep 2005 14:44:28 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Wed, 28 Sep 2005 11:48:15 -0400, Michael Coslo
><mjc5@enoughalready.psu.edu> wrote:
>
>
>> Absolutely. I don't support money going to rebuilding NO in it's
>>present spot.
>>
>> The French Quarter is okay where it is. It will eventually become an
>>island, and should last for quite a while yet. Seems like a charming way
>>to get to Mardi Gras - by a boat.
>>
>> But no matter how much money we pour into th erest of NO, it will sink.
>>I suppose that we could try a Netherlands type approach, with huge
>>dikes and all, but I doubt that there is enough room on the sides to do
>>that, and besides, the Netherlands doesn't have to worry about
>>hurricanes either.
>>
>> - Mike KB3EIA -
>
>I wonder why they don't rebuild New Orleans the way they built Venice,
>Italy. Venice was built by people who were trying to get away from
>Attila the Hun. Attila wanted farmland, so the nomads of that area
>fled and settled in what was a swamp, and they built a city on a
>swamp.
>
>(Of course, the first one sank into the swamp, so they built a second
>one. THAT one sank into the swamp, so they built a third one. THAT one
>burned down, fell over, and then sank into the swamp...but the fourth
>one stayed up!)
>
>Seriously, though, New Orleans as a city of canals has a certain
>romantic flair to it.

I'm not hearing any interest in turning streets near me into
canals.

1410. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:34:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhhtm9$619$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69808

The impedance looking into the feedpoint of an infinite dipole is
TWICE Zo.

Zo + Zo = 2*Zo.

The formula for Zo doesn't seem right. When the circumference of the
antenna rod is one wavelength, Zo = 0.

And when the circumference is greater than one wavelength, Zo becomes
negative.

For an 18 gauge wire, at a frequency of 183 GHz, something funny
happens.

Reg.

1411. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:35:09 UTC
From: kashe@sonic.net
Message-ID: <r2uoj1pd7deompqns37ht202ob2qbgjip3@4ax.com>
Source record: 69807
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On 28 Sep 2005 18:52:24 -0700, N2EY@AOL.COM wrote:

>
>Michael Coslo wrote:
>> Cecil Moore wrote:
>>
>> > Matt Osborn wrote:
>> >
>> >> Maybe we should rebuild New Orleans in England, it would balance the
>> >> scales.
>> >
>> >
>> > We indeed should rebuild New Orleans somewhere that is
>> > not below sea level.
>
>How about Death Valley?

How much of Death Valley is not below sea level?

From http://hypertextbook.com/facts/2000/MichaelLevin.shtml

The hottest temperature on Earth ever recorded most likely occurred in
Death Valley, California during 43 consecutive days between July 6 and
August 17, 1917. During those days, the temperature was over 48
degrees Celsius (120 degrees Fahrenheit). The national weather service
recorded 56.7 ï¿½C (134 ï¿½F). The date reported there was July 10, 1913.

The elevation in the lowest point is 86 meters below sea level.

>>
>> Absolutely. I don't support money going to rebuilding NO > in it's
>> present spot.
>
>I agree 100%. But you watch, the money will be poured into it just like
>the water.
>>
>> The French Quarter is okay where it is. It will
>> eventually become an
>> island, and should last for quite a while yet.
>> Seems like a charming way
>> to get to Mardi Gras - by a boat.
>>
>> But no matter how much money we pour into th erest of
>> NO, it will sink.

>> I suppose that we could try a Netherlands type approach,
>> with huge
>> dikes and all, but I doubt that there is enough room on the
>> sides to do
>> that, and besides, the Netherlands doesn't have to worry about
>> hurricanes either.
>
>The levees are dikes, aren't they?
>
>There are some important other differences.
>
>It's my understanding that the Dutch built their dikes and filled
>in/pumped out the polders as a way of getting more farmland without
>fighting wars with their neighbors, and as a way of *reducing* storm
>damage. They don't build cities on below-sea-level land. And the way
>they deal with the reclaimed land results in it slowly but surely
>rising, not sinking.
>
>But they don't put cities there.

1412. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:42:08 UTC
From: kashe@sonic.net
Message-ID: <lluoj1tl940rn3ksi4up99c0gaf0tqdocs@4ax.com>
Source record: 69809
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 28 Sep 2005 01:05:30 -0700, Zoran Brlecic
<...WA7AA...@get.lost> wrote:

>kashe@sonic.net wrote:
>
>
>>>>Not to mention Hitler.
>>>
>>>And we have a Godwin, all...
>>
>>
>> Dumb shit -- the reference is apropos in the midst of a
>> discussion of mass murderers. You lose.
>
>Discussion of mass murderers who were allegedly atheists. Reductio ad
>Hitlerum.

Nice -- make it up as you go to support your own childishness
fantasies.

Godwin, etc. is a cute little piece of usenet lore, with no
bearing on the acual discipline of logic.

Correct comparisons are another matter entirely, dipshit.
>
>And also Guy's corollary, asshole.
>
>>>Btw, Hitler, if you must bring him up, was a Christian.

Well, at least you finally got the point.

1413. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:45:59 UTC
From: kashe@sonic.net
Message-ID: <rvuoj1hbpbb90pe0o89dm4auij60ipjufj@4ax.com>
Source record: 69810
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 28 Sep 2005 09:03:11 -0400, Michael Coslo
<mjc5@enoughalready.psu.edu> wrote:

>N2EY@AOL.COM wrote:
>> Mike Coslo wrote:
>>
>>
>>>>>"Pardon me while I slip out of these wet clothes
>>>>and into a dry
>>>>martini." - Groucho (or was it Bugs Bunny?)
>>
>>
>> I think it was Groucho
>>
>>> What happened to all the old Bugs Bunny cartoons anyway?
>>>
>>
>> Warner Bros. has them safely tucked away. Some that were made in the
>> 1940s are not shown anymore because they contain parodies and
>> stereotypes now considered racist.
>>
>> --
>>
>> I think you were asking about Foghorn Leghorn...
>>
>> "Nice girl, but about as sharp as a sack o' wet mice"
>>
>> "DAWG! I say, dawg, you look like two miles o' bad road!"
>>
>> "That widder hen reminds me of the road from Fort Worth to Dallas - no
>> curves"
>>
>> "No, I better not look - I just might be in there"
>>
>> "That dawg reminds me of Paul Revere's ride - a little light in the
>> belfry.."
>
> Son, I SAY, Son! I ain't no chicken! Now that over there, THAT's a
>chicken!.........
>
>
> Actually, Ol' Foghorn is probably not the problem. There are a number
>of old WB cartoons that have some rather strong stereotype of the folks

>we were fighting during WWII (the big one) Considering that they are now
>our allies, there might be a little sensitivity thing going on.
>
> Personally, I think they should be shown, especially when introduced in
>the proper context. They are of historical value, and in the context of
>the times, were understandable.
>
> Oh - and they were darn funny too!
>
> - Mike KB3EIA -

Anyone recently seen an old (40s or so) copy of the Stephen
Foster Songbook? Nearly every facing page with a sketch of happy,
carefree, little darkies, havin' a wunnerful time, singin', dancin'
and playin' their fiddles.

1414. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:48:32 UTC
From: kashe@sonic.net
Message-ID: <n7voj1d6pe1qh9u846l2tou36ko0vqkd35@4ax.com>
Source record: 69811
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Wed, 28 Sep 2005 13:21:15 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> > Personally, I think they should be shown, especially when
>introduced in
>> > the proper context. They are of historical value, and in the
>context of
>> > the times, were understandable.
>> >
>==================================
>
>Censorship appears to be in action.
>
>Who is the censor?
>
>==================================
>

Showing something in its historical context is not censorship.
Would you set up an exhibit of historical KKK robes on your front
porch without an explanation?

1415. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:51:48 UTC
From: kashe@sonic.net
Message-ID: <5fvoj1hrhntk8at0od8pqjm03kap1lkse9@4ax.com>
Source record: 69812
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

We're trying to embarrass your delete key into admitting it's
impotent.

On Thu, 29 Sep 2005 19:33:06 GMT, "Pat Stevens"
<patstevens196@rochester.rr.com> wrote:

> Why is it you guys insist on continuing this conversation? Take it to
>e-mail or take it to a newsgroup where it would be not off-topic.
>
>"Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
>news:dhhcoc$1fj0$1@f04n12.cac.psu.edu...
>>
>> Actually, something that we call gravity undeniably exists. While our
>> understanding of it is incomplete, there is no doubt that it exists. It is
>> there, we see what happens if we drop someting in an area where "gravity"
>> is strong, and in areas where it is virtually nonexistant.
>>
>> The "proof" if you will, is in the explanation and understanding of what
>> we call gravity, not it's existance.
>>
>> Now God on the other hand, gives no real evidence at all for existence.
>> Miracles are manifestations of chance, and many things that were once
>> attributed to divine intervention have found ready explanations after we
>> learn more about the universe.
>>
>> So the statement was incorrect in the first place.
>>
>> - Mike KB3EIA -
>>
>

1416. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:51:54 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433c7e1a$0$3767$39cecf19@news.twtelecom.net>
Source record: 69813
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Pat Stevens wrote:

> Why is it you guys insist on continuing this conversation? Take it to
> e-mail or take it to a newsgroup where it would be not off-topic.
>
> "Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
> news:dhhcoc$1fj0$1@f04n12.cac.psu.edu...
>

Why not just click your "Ignore Thread" button?

tom
K0TAR

1417. Source of SO-239

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:55:25 UTC
From: David <groups@orbitcoms.com>
Message-ID: <N9%_e.2817$U51.1115@news-server.bigpond.net.au>
Source record: 69814

Does anyone know where I could find a source of 3/8 to SO-239 mount (SO-239 female socket on one side and 3/8 threaded stud on other side connected to centre pin).

Prefer Australian source if you know of one otherwise anywhere I can purchase in bulk at wholesale.

Thanks in advance

Regards

David

1418. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-29 23:56:14 UTC
From: kashe@sonic.net
Message-ID: <mhvoj1dj4tu48o4kp8e8bq2dfst5np7nm2@4ax.com>
Source record: 69815
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 00:40:50 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Wed, 28 Sep 2005 23:52:00 GMT, kashe@sonic.net wrote:
>
>
>>>>>>>Pope worshipers and Mohamahdists are all the same to me...
>>>>>>
>>>>>> That says more about you than about them.
>>>>>
>>>>>Such as?
>>>>
>>>> If you have to ask ....
>>>
>>>Ambiguity will get you nowhere.
>>
>> If that's ambiguous, you should get back whatever money you
>>wasted on an education.
>
>YOU are the one that wants to play games and won't answer my question.
>You also wait several days before posting any response, which leads me
>to believe that you have to wait until mommy and daddy are out of the
>house before you can get on the computer.

Mommy and Daddy have been dead since 95 and 61, respectively.

If you think you're important enough that I should leap to the
keyboard daily, you're sadly mistaken. I may only look in once a week.
Live with it.

So, you're not only full of shit on both counts, you're also
wrong.

And just how hollow is your life that you have to track my
posting delays? Get a hobby.

1419. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 00:08:41 UTC
From: kashe@sonic.net
Message-ID: <8rvoj19bp6umuvfefeo6v87enpmg18pd8m@4ax.com>
Source record: 69816
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 02:54:34 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>kashe@sonic.net wrote:
>>>Tom Donaly wrote:
>>>
>>>>Faith and works are, like voltage and current, inextricably intertwined.
>>
>>
>> They are not.
>>
>>
>>>>The proof of faith is the good work. Those who do no good have no faith.
>>
>>
>> Your logic book get lost in the hurricane? Come back when you
>> can name the logical fallacy you just committed.
>
>Some of the lower forms of American Christianity try to separate faith
>and works. That allows them salvation without substance, the lazy man's
>path to life without end.

in your narrow view.

> My last two sentences are statements of truth

"I fear the man who has all the answers." -- Father James
Marien, S.J. -- 1961 -- in my presence.

>, not a logical
>progression.

As written, they beg to be read as an incomplete syllogism.

>Each has to be taken alone, by itself. (A religious
>fundamentalist insisting on logical consistency constitutes a
>pretty good joke.) Let me repeat: Those who do no good have no
>faith.

Repitition does not include leaving off the first half of the
line you wrote. In a humorous logic treatise, your statement would be
named "The Proof from Blatant Assertion".

> Next time you and your friends are sitting around speaking
>in tongues, you should discuss this. Maybe, if you all think real

>hard, together, you can puzzle out what it means.

>73,
>Tom Donaly, KA6RUH

1420. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 00:10:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k90pj1ppt5hqs9hi4qcnm6rsp5bcro8gvt@4ax.com>
Source record: 69817
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 18:14:57 -0500, Matt Osborn <> wrote:

>So in what context do we contain poorly understood rules and
>perceptions? How do we speak of them? We could always resort to
>obtuse phrases such as 'that which cannot be contained', or 'that
>which is smaller than smallest small' or 'that which is larger than
>largest large'.
>
>Mankind has historically ascribed the above to G-d.

This is called Nihilism - but with your bets hedged in case you are
wrong (which, of course, is Narcissistic, an amusing contradiction).

73's
Richard Clark, KB7QHC

1421. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 00:17:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jn0pj1l2u1dk7grot7l4ni8s7gvutfen60@4ax.com>
Source record: 69819
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 23:26:21 GMT, kashe@sonic.net wrote:

> I'm not hearing any interest in turning streets near me into
>canals.

In Santa Rosa? Perhaps if the Russian River overflowed - a lot.

1422. Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 00:17:31 UTC
From: Buther Boy <me@privacy.net>
Message-ID: <3v0pj1h66mvi1c2unrrhc43t9eadjcuthj@4ax.com>
Source record: 69818

Hi, just ordered this awesome antenna. Anyone have any experiences
they'd like to share regarding its use?

Buther Boy

--
Remove the word Spam from my e-mail to contact me...
http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
~

1423. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 00:52:27 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <sr2pj117f58kalmpvvb58v7n87m3uj7v9k@4ax.com>
Source record: 69820

On Thu, 29 Sep 2005 15:55:48 GMT, Cecil Moore <mycall@arrl.net> wrote:

>http://apnews.myway.com/article/20050929/D8CTUA3O7.html

Little confusing -- the story doesn't explain how the signal gets to
the house -- via power lines, cable, phone, wireless?

Regardless, guess the house would be a buzz bomb of hash.

bob
k5qwg

1424. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 01:22:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhi406luq1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69822

> Hi, just ordered this awesome antenna. Anyone have any experiences
> they'd like to share regarding its use?
>
==========

Don't you think you should have asked for opinions BEFORE ordering a
miracle?

1425. OT: Reconcile Qs using SPICE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 01:23:47 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <Ds0%e.11094$WT3.7174@trnddc03>
Source record: 69821

Forgive the OT posting, but I know a lot of RF experts hang out here.

I am trying to learn about Q. I know there is a difference in component Q and circuit Q. To study this thing, I am using SPICE so that I will have no instrument loading to affect my setup. I can make things as perfect as I wish, almost.

My problem is that I cannot reconcile the two ways of obtaining Q:

1. Q = X/R (reactance divided by resistance)
2. Q = Fo/BW (resonant frequency divided by bandwidth)

In spice, I have a 1V source, one end connected to ground and the other end applied to a series string composed of L = 24.833 mH, 458 ohms, and 102 pF and then to ground. Essentially, I have a series circuit consisting of a source, inductor, resistor, and capacitor. The resonant frequency should be 100 kHz.

Using SPICE, I examine the current in the loop. I find that the current 6dB down points are about +/- 2.5 kHz away from 100 kHz. This is a Q of about 20.

But, the reactance is about 15.6 kohms and the resistance is 458 ohms, so the calculated Q is about 34.

Can someone explain where I'm going wrong here?

Thanks.

John - KD5YI

1426. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 01:33:32 UTC
From: Jack <Jack@home.net>
Message-ID: <c326e$433c9645$8b370a41$9154@ALLTEL.NET>
Source record: 69823

I bought one last year....Sent it back 2 days later

It sucked swampwater!

Wasnt worth the price of a postage stamp!

Jack
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhi406luq1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> > Hi, just ordered this awesome antenna. Anyone have any experiences
> > they'd like to share regarding its use?
> >
> ================================
>
> Don't you think you should have asked for opinions BEFORE ordering a
> miracle?
>
>

1427. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 01:56:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nc6pj1li777ado8kn5e2f006l1e541t8e6@4ax.com>
Source record: 69824
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 19:57:13 -0500, Matt Osborn <> wrote:

>Not even close. From my limited study, this seems to be the seed from
>which psychology and psychiatry arose.
>
>From the OED:

The OED is fine if you include the historical tag citations,
contemporary dictionaries (unless you are arguing from the perspective
of a 19th century monk) allow:

1. An extreme form of skepticism that denies all existence.
2. A doctrine holding that all values are baseless and that nothing
can be known or communicated.

>>>So in what context do we contain poorly understood rules and
>>>perceptions? How do we speak of them?
fits perfectly fine in the second context and dovetails with your
rather amorphous logic. In fact, this second usage is almost your
manifesto here - with the aforementioned insurance policy against
damnation.

73's
Richard Clark, KB7QHC

1428. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 01:57:56 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <EY0%e.11344$WT3.1258@trnddc03>
Source record: 69825

Reg Edwards wrote:
> Ham radio is gradually on its way out. The authorities will not allow
> it to interfere with other forms of radio transmission.
>
> In any case, insofar as the authorities are concerned, ham radio is an
> insecure means of communication. It is difficult to intercept, monitor
> and control the traffic which passes over it.
>
> Even radio broadcasting is being pushed onto the Internet. It will be
> noticed the BBC international broadcasts are not now beamed to the USA
> but are advertised as being readily available to USA listeners via the
> Internet. The Internet is easily intercepted, monitored and
> controlled by the authorities. Whoever THEY may be.
>
> They who own and control the means of communication, including that
> via satellites, will rule the Earth.
> ----
> Reg.

When I learned that the BBC wasn't available on shortwave, I made no effort to listen to it on the Internet. The magic was gone. I could no longer take my battery-powered HF radio out in the country or in my car (no, I don't have satellite radio) and listen to BBC. The programming was fantastic. What a loss.

There goes another thing I really enjoyed.

John

1429. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 02:03:50 UTC
From: tennapro <chromavisions@aol.com>
Message-ID: <1128045830.794934.214900@g14g2000cwa.googlegroups.com>
Source record: 69676

Fred W4JLE wrote:
> Like the old joke about the goat, I don't think I would have told that!
>
> "Cecil Moore" <mycall@arrl.net> wrote in message
> news:5NX_e.1591$Fi3.75@newssvr29.news.prodigy.net...
> > Fred W4JLE wrote:
> > > Is that you Phil?
> >
> > :-) I actually attended a meeting with the Fractenna
> > folk at Intel back in the 90's and did some experiments
> > with small fractal antennas inside an anechoic chamber.
> > --
> > 73, Cecil, http://www.qsl.net/w5dxp

Yah, but as someone reading the mail, the number of idiots jerking around is astounding. At least Cecil isn't blown off by the hot air and BS. This guy Richard is the most eloquent BS artist I've seen yet. Man, getta life!

1430. Re: OT: Reconcile Qs using SPICE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 02:06:37 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <N41%e.341113$5N3.107245@bgtnsc05-news.ops.worldnet.att.net>
Source record: 69677

John,

It is customary to use 3 dB points for defining the bandwidth when considering resonance phenomena and Q. If you do so, I believe you will find your numbers match more closely.

73,
Gene
W4SZ

John - KD5YI wrote:
> Forgive the OT posting, but I know a lot of RF experts hang out here.
>
> I am trying to learn about Q. I know there is a difference in component
> Q and circuit Q. To study this thing, I am using SPICE so that I will
> have no instrument loading to affect my setup. I can make things as
> perfect as I wish, almost.
>
> My problem is that I cannot reconcile the two ways of obtaining Q:
>
> 1. Q = X/R (reactance divided by resistance)
> 2. Q = Fo/BW (resonant frequency divided by bandwidth)
>
> In spice, I have a 1V source, one end connected to ground and the other
> end applied to a series string composed of L = 24.833 mH, 458 ohms, and
> 102 pF and then to ground. Essentially, I have a series circuit
> consisting of a source, inductor, resistor, and capacitor. The resonant
> frequency should be 100 kHz.
>
> Using SPICE, I examine the current in the loop. I find that the current
> 6dB down points are about +/- 2.5 kHz away from 100 kHz. This is a Q of
> about 20.
>
> But, the reactance is about 15.6 kohms and the resistance is 458 ohms,
> so the calculated Q is about 34.
>
> Can someone explain where I'm going wrong here?
>
> Thanks.
>
> John - KD5YI

1431. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 02:23:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Xk1%e.1235$lc1.3@newssvr21.news.prodigy.com>
Source record: 69678
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> You may not like have your faith pointed out to you, but there it is.
> All you can say about gravity is that "It is as if...".

Heh, heh, I now understand. You equate faith to ignorance.
I couldn't have said it better myself.
--
73, Cecil http://www.qsl.net/w5dxp

1432. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 02:53:56 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <dv9pj19vteegi1d4epsdfpf3q661vqd4nc@4ax.com>
Source record: 69679

On Fri, 30 Sep 2005 01:57:56 GMT, John - KD5YI
<groups5munge@verizon.net> wrote:

>Reg Edwards wrote:
>> Ham radio is gradually on its way out. The authorities will not allow
>> it to interfere with other forms of radio transmission.
>>
>> In any case, insofar as the authorities are concerned, ham radio is an
>> insecure means of communication. It is difficult to intercept, monitor
>> and control the traffic which passes over it.
>>
>> Even radio broadcasting is being pushed onto the Internet. It will be
>> noticed the BBC international broadcasts are not now beamed to the USA
>> but are advertised as being readily available to USA listeners via the
>> Internet. The Internet is easily intercepted, monitored and
>> controlled by the authorities. Whoever THEY may be.
>>
>> They who own and control the means of communication, including that
>> via satellites, will rule the Earth.
>> ----
>> Reg.
>
>When I learned that the BBC wasn't available on shortwave, I made no effort
>to listen to it on the Internet. The magic was gone. I could no longer take
>my battery-powered HF radio out in the country or in my car (no, I don't
>have satellite radio) and listen to BBC. The programming was fantastic. What
>a loss.
>
>There goes another thing I really enjoyed.
>
>John

It's not quite shortwave, but National Public Radio plays BBC
programming from about midnight to 5 a.m. (at least my local station
does)

Bob
k5qwg

1433. Re: OT: Reconcile Qs using SPICE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 02:57:52 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <QQ1%e.11920$WT3.11873@trnddc03>
Source record: 69680

Gene Fuller wrote:
> John,
>
> It is customary to use 3 dB points for defining the bandwidth when
> considering resonance phenomena and Q. If you do so, I believe you will
> find your numbers match more closely.
>
> 73,
> Gene
> W4SZ
\

Thanks, Gene.

Then my misunderstanding is with Decibels (or SPICE) instead of Q. You are correct that, if I check the bandwidth between the 3dB *current* points, the numbers come out about right. However, I thought 3dB was a power thing and 6dB was a current (or voltage) thing. In any case, if I use the 3dB down points of either voltage or current, it works out as calculated. So I checked the current at the 3dB points and that put the Q very close to the X/R point.

Thanks for your help.

John

>
> John - KD5YI wrote:
>
>> Forgive the OT posting, but I know a lot of RF experts hang out here.
>>
>> I am trying to learn about Q. I know there is a difference in
>> component Q and circuit Q. To study this thing, I am using SPICE so
>> that I will have no instrument loading to affect my setup. I can make
>> things as perfect as I wish, almost.
>>
>> My problem is that I cannot reconcile the two ways of obtaining Q:
>>
>> 1. Q = X/R (reactance divided by resistance)
>> 2. Q = Fo/BW (resonant frequency divided by bandwidth)
>>
>> In spice, I have a 1V source, one end connected to ground and the
>> other end applied to a series string composed of L = 24.833 mH, 458
>> ohms, and 102 pF and then to ground. Essentially, I have a series
>> circuit consisting of a source, inductor, resistor, and capacitor. The
>> resonant frequency should be 100 kHz.

>>
>> Using SPICE, I examine the current in the loop. I find that the
>> current 6dB down points are about +/- 2.5 kHz away from 100 kHz. This
>> is a Q of about 20.
>>
>> But, the reactance is about 15.6 kohms and the resistance is 458 ohms,
>> so the calculated Q is about 34.
>>
>> Can someone explain where I'm going wrong here?
>>
>> Thanks.
>>
>> John - KD5YI

1434. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 03:04:16 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <NJOdnU_cTvytNqHeRVn-gg@adelphia.com>
Source record: 69681

Waste of money.....

--

Bill
KI4HPZ

"Jack" <Jack@home.net> wrote in message
news:c326e$433c9645$8b370a41$9154@ALLTEL.NET...
>I bought one last year....Sent it back 2 days later
>
> It sucked swampwater!
>
> Wasnt worth the price of a postage stamp!
>
> Jack
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:dhi406luq1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>> > Hi, just ordered this awesome antenna. Anyone have any experiences
>> > they'd like to share regarding its use?
>> >
>> ================================
>>
>> Don't you think you should have asked for opinions BEFORE ordering a
>> miracle?
>>
>>
>
>

1435. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 03:28:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhibcp$9bp$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69682

Richard,

Everybody says that thickening the antenna conductor increases the bandwidth. And indeed it does.

But nobody ever says by how much the bandwidth is increased.

I think this is because bandwidth is increased by such a small proportion that it's not worth the trouble and expense of erecting another antenna. Otherwise everybody would have giant, unsightly, neighbor-offending, cages in their back yards. But they don't.

I have a program, DIPCAGE2, which calculates the increase in bandwith due to increase in dipole diameter which demonstrates this disappointing point.

I would like confirmation that my calculations are correct. Do you have, or know of, any reliable measurements of bandwidth versus dipole conductor diameter. One serious, accurate example might be good enough. These days I don't have the facilities to make measurements myself.

It doesn't matter how bandwidth is defined but I am not happy with the usual 'SWR/bandwidth' definition because of unreliability of SWR meters plus the misplaced confidence in them.

In practice, accurate knowledge of antenna bandwidth is not of great use since the system operating bandwidth is affected by the transmission line and matching network, if there is one. I don't know why I'm bothered about it! But I WOULD like to see an appropriate degree of importance attached to the subject on these walls.

Reggie, G4FGQ.

1436. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 03:49:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ctcpj15dni7caof7i9pvphguoa6i3q2rq3@4ax.com>
Source record: 69683
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 21:58:14 -0500, Matt Osborn <> wrote:

>> 2. A doctrine holding that all values are baseless and that nothing
>>can be known or communicated.
does not proceed towards:
>How could you possibly read the denial of existence itself?
but in fact stems from
>>>>>So in what context do we contain poorly understood rules and
>>>>>perceptions? How do we speak of them?
which is nihilistic. The confusion is yours, explicitly admitted to,
and it is evidenced in many of your statements. As such, the
consistency speaks for itself and mocks these attempts at denial.

73's
Richard Clark, KB7QHC

1437. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 04:06:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kndpj1d2c0krodc9nisk70iu8jqjvvpgia@4ax.com>
Source record: 69684

On Fri, 30 Sep 2005 03:28:25 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Richard,
>
>Everybody says that thickening the antenna conductor increases the
>bandwidth. And indeed it does.
>
>But nobody ever says by how much the bandwidth is increased.

Hi Reggie,

Well, if you show no interest in following the leads provided -
offered in the text you edited out....

>But I WOULD like to see an appropriate
>degree of importance attached to the subject on these walls.

Given your inattention to material already offered, this is
indistinguishable from your typical trolls. I have built and measured
some poor discones, but you hardly motivate me to search for those
details.

73's
Richard Clark, KB7QHC

1438. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 04:14:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hlepj1pqqsc8ba0nbc6ohkih44jvj3cdrr@4ax.com>
Source record: 69685

On 29 Sep 2005 19:03:50 -0700, "tennapro" <chromavisions@aol.com>
wrote:

>This guy Richard is the most eloquent BS artist I've seen yet. Man,
>getta life!

Hi Gary,

I sign my work, which at least validates my statements as being mine,
and I offer examples which validates my effort.

I see neither above, and certainly no eloquence.

73's
Richard Clark, KB7QHC

1439. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 04:22:56 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <juepj1tpojn81o3bqlgii0ckoc7c8pkkcj@4ax.com>
Source record: 69686
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 23:56:14 GMT, kashe@sonic.net wrote:

> Mommy and Daddy have been dead since 95 and 61, respectively.
>
> If you think you're important enough that I should leap to the
>keyboard daily, you're sadly mistaken. I may only look in once a week.
>Live with it.
>
> So, you're not only full of shit on both counts, you're also
>wrong.
>
> And just how hollow is your life that you have to track my
>posting delays? Get a hobby.

My, my! I seem to have hit a nerve.

1440. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 04:58:34 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1ehpj15a2kq2h4gmdq2jn5rluma65njqti@4ax.com>
Source record: 69687

On Thu, 29 Sep 2005 15:55:48 GMT, Cecil Moore <mycall@arrl.net> wrote:

>http://apnews.myway.com/article/20050929/D8CTUA3O7.html

Note that not only are the Japanese smart enought to "develop" the
technology, they are smart enough to ban its use in their own country.

Owen
--

1441. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 05:08:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8bgpj11ofckhvd5dcg0umujbqav3508g9m@4ax.com>
Source record: 69688
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 23:16:50 -0500, Matt Osborn <> wrote:

>Well, with your editing, I suppose you could strain credulity and make
>such a claim.

I trust the readership is already well read on this not to need the
extensive quoting such as you require. My newsreader is adequate to
the task of finding sufficient material and I have faith others are
equally competent to the matter.

73's
Richard Clark, KB7QHC

1442. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 06:11:08 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433cc1e1@fidonet.org>
Source record: 69689

"Dave" bravely wrote to "All" (29 Sep 05 16:01:09)
--- on the heady topic of "Re: Lightning Question"

Da> From: "Dave" <noone@nowhere.com>
Da> Xref: core-easynews rec.radio.amateur.antenna:217598

Da> the 'leader' is usually referring to the charge that is coming down
Da> from the cloud and attracting the charge on the ground to it. this
Da> process is actually relatively slow, as it the growth of the streamers
Da> up from the ground. just note how long you have from when your hair
Da> starts standing up to dive into a ditch, that is hardly a high
Da> frequency event.

OK, but that tickly feeling consists of many spikey pulses, and from
Fourier, pulses consist of a whole series of higher order frequencies.
However, this could be relevant, some scientist in Florida studying
lightning has theorized that the strike is instigated by cosmic
radiation, more specifically gamma ray bursts from blackholes. It kind
of makes sense because if the CR creates an ionization trail in the
atmosphere, this is a good initial conductive channel for the cloud's
potential to drive a current into a suitable ground point. Awesome.

A*s*i*m*o*v

... Explain counter-clockwise to someone with a digital watch

1443. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 06:11:10 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433cc1e2@fidonet.org>
Source record: 69690

"Cecil Moore" bravely wrote to "All" (29 Sep 05 15:25:42)
--- on the heady topic of "Re: 73 Ohms, How do you get it?"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:217594

CM> Asimov wrote:
> Cecil, an infinitely long antenna is simply an impedance transformation
> between different mediums. i.e. wire to free space.

CM> We know one of the impedances to be 377 ohms.
CM> Question is, what is the other impedance?

I think it is whatever you want it to be because it is a transformer.
Varying Rs would only affect the pattern.

A*s*i*m*o*v

... Thank Thor Friday Nears!

1444. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 06:15:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dtlpj1p99suj99uoqeei8bfq7qeah0e5vh@4ax.com>
Source record: 69691

On Fri, 30 Sep 2005 06:11:10 GMT, "Asimov"
<Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote:

>I think it is whatever you want it to be because it is a transformer.
>Varying Rs would only affect the pattern.

In standard antenna parlance, the "pattern" is unaffected (aside from
magnitude, and then only by consequence of mismatch) by
transformation.

73's
Richard Clark, KB7QHC

1445. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 06:49:44 UTC
From: nm5k@wt.net
Message-ID: <1128062984.923437.180830@g49g2000cwa.googlegroups.com>
Source record: 69692

However, this could be relevant, some scientist in Florida studying lightning has theorized that the strike is instigated by cosmic radiation, more specifically gamma ray bursts from blackholes. It kind of makes sense because if the CR creates an ionization trail in the atmosphere, this is a good initial conductive channel for the cloud's potential to drive a current into a suitable ground point. Awesome.

Ugh....If that were the case, wouldn't you have lightning in good weather? Dunno...I think he's had too much gatoraid... MK

1446. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 08:00:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cprpj1dai84ueclbvp81midluq6qu8cfjv@4ax.com>
Source record: 69693

On 29 Sep 2005 23:49:44 -0700, nm5k@wt.net wrote:

>Ugh....If that were the case, wouldn't you have lightning in good
>weather? Dunno...I think he's had too much gatoraid... MK

Hi Mark,

Perhaps his SPF is higher than his IQ.
Two problems I see with this speculation:
1. Cosmic Rays don't follow random paths;
b. Cosmic Rays don't travel at the speed of a falling greyhound bus;
iii. There are more Cosmic Rays at the magnetic poles where there is
little lightning, than in Florida where they are aplenty.

73's
Richard Clark, KB7QHC

1447. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 11:36:57 UTC
From: Dave <noone@nowhere.com>
Message-ID: <n62dnSYO0P7-vqDeRVn-og@crocker.com>
Source record: 69694

<nm5k@wt.net> wrote in message
news:1128062984.923437.180830@g49g2000cwa.googlegroups.com...
> However, this could be relevant, some scientist in Florida studying
> lightning has theorized that the strike is instigated by cosmic
> radiation, more specifically gamma ray bursts from blackholes. It kind
> of makes sense because if the CR creates an ionization trail in the
> atmosphere, this is a good initial conductive channel for the cloud's
> potential to drive a current into a suitable ground point. Awesome.
>
> Ugh....If that were the case, wouldn't you have lightning in good
> weather? Dunno...I think he's had too much gatoraid... MK
>

there actually is a clear air current that flows all the time, you can
actually draw power from it with a relatively small 'antenna'. in fact,
many years ago one of the 'popular' magazines published plans for a motor
that ran off the clear air electric field, you just had to be sure to
disconnect it before a thunderstorm came through.

1448. Re: Metal Roof and Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 12:07:14 UTC
From: Howard K0ACF <howardk0acf@cox.net>
Message-ID: <NT9%e.85271$DW1.22943@fed1read06>
Source record: 69695

I live in a 24x56 ft. mobile home with metal roof & sides. a HF6V is mounted
about 6 inch's off the side & about 28 ft. from the end & the matching coil
is stretched out so far that it is like a piece of wire & it works great.
"Rod Maupin" <gridman@ywave.com> wrote in message
news:11j8isc2vp1so0f@corp.supernews.com...
>I posted this on the wrong newsgroup a few days ago and no one has
>answered, so I'll try here.
>
> I have a Butternut Vertical (as a secondary antenna) and a regular radial
> system set up with it. I also have a metal roof on my house (here in the
> country in Western Washington). I have been wondering if I can use the
> metal roof as the radial system/ground plane for this antenna. Haven't
> tried it yet. Would this work or would it detune the antenna?
>
> What do you guys think?
>
> Rod KI7CQ
>
>

1449. Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 12:29:36 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <Qca%e.16225$VI6.887@fe1.news.blueyonder.co.uk>
Source record: 69696

Hi !!.

I`ve just built a magnetic loop for 20m, it is 1 metre circumference and uses a coaxial capacitor (RG58... QRP operation!!!) , it receives very well but doesn`t transmit very well at all !!!!.....it loads but T/X isn`t up
to R/X.....

Any advice will be greatly appreciated.....

Thanks....

Lee....G6ZSG....

1450. MD-75 Motor Drive

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 12:41:25 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <u4cqj1p5mgqglthhq5agbj8db7angprd5g@4ax.com>
Source record: 69697

Would anyone know what type of oil/grease goes in the gear box of the MD-75 Motor Drive? Also, what type of drive belt is needed?

If anyone would have the a service manual on this drive, I would be intersted in getting a copy. I would gladly pay all expenses.

Win, w0lz

1451. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 12:59:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhjcr3$75s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69698

> I`ve just built a magnetic loop for 20m, it is 1 metre circumference
and
> uses a coaxial capacitor (RG58... QRP operation!!!) , it receives
very
> well but doesn`t transmit very well at all !!!!.....it loads but
T/X isn`t
> up
> to R/X.....
>
> Any advice will be greatly appreciated.....
>
==========
There's almost certainly nothing the matter with it.

You can't expect a small QRP magloop to work as well as a 1/2-wave
vertical with 100 watts.

What makes you think it is not working as well as it ought to? What
have you compared it with?

Reg, G4FGQ

1452. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 13:46:55 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <jlb%e.17853$iW5.7381@fe3.news.blueyonder.co.uk>
Source record: 69699

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhjcr3$75s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> ==============================
> There's almost certainly nothing the matter with it.
>
> You can't expect a small QRP magloop to work as well as a 1/2-wave
> vertical with 100 watts.
>
> What makes you think it is not working as well as it ought to? What
> have you compared it with?
> ----
> Reg, G4FGQ
>
Hello Reg..
Took your advice and built a magloop......
I`m comparing the magloop to 5watts on a half-size sloping G5RV and i find
the magloop equivalent to the G5RV on R/X.whilst the magloop is inside the
house!!!..
I have a friend about a mile away that i chat to who hears me on the G5RV at
s30+ ......but, not at all on the magloop!!!!......
Why am i not being heard on the magloop???? :-/. H-E-L-P........

Lee.....G6ZSG.....

1453. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 14:08:27 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <433D46F0.D0533E2B@shaw.ca>
Source record: 69700

Lee wrote:
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:dhjcr3$75s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> > ==============================
> > There's almost certainly nothing the matter with it.
> >
> > You can't expect a small QRP magloop to work as well as a 1/2-wave
> > vertical with 100 watts.
> >
> > What makes you think it is not working as well as it ought to? What
> > have you compared it with?
> > ----
> > Reg, G4FGQ
> >
> Hello Reg..
> Took your advice and built a magloop......
> I`m comparing the magloop to 5watts on a half-size sloping G5RV and i find
> the magloop equivalent to the G5RV on R/X.whilst the magloop is inside the
> house!!!..
> I have a friend about a mile away that i chat to who hears me on the G5RV at
> s30+ ......but, not at all on the magloop!!!!......
> Why am i not being heard on the magloop???? :-/. H-E-L-P........
>
> Lee.....G6ZSG.....

You may have the null pointed at him. Are you able to work other
stations on the magloop?

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1454. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 14:11:53 UTC
From: richardharrison@webtv.net
Message-ID: <12837-433D47A9-414@storefull-3256.bay.webtv.net>
Source record: 69704

Cecil, W5DXP wrote:
"Is the graph impedance looking into 1/2 of the dipole?"

I only quoted from the plot for tthe whole dipole in free-space.

The graph on page 345 has two traces:

Zo, or antenna average surge impedance, ZA, for a balanced, center-fed dipole in free-space, which is found to be a function of the antenna thickness=

ZA = 276 log 1/P

The other formula is also plotted. It is for a vertical rod against ground. It has exactly 1/2 the resistance of the dipole.

For peripheries larger than 0.25 wavelength, Bailey notes that surge impedance departs from the formula. For smaller peripheries, the plots are almost straight lines on the scale used. Peripheries are plotted with log spacings. Impedances are plotted with linear spacings.

Best regards, Richard Harrison, KB5WZI

1455. FA: New old stock mobile CB antennas - must see!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 14:15:48 UTC
From: jimbradley@gmail.com
Message-ID: <1128089748.870799.30180@g44g2000cwa.googlegroups.com>
Source record: 69701

http://search.ebay.com/_W0QQsassZjim-of-wareQQhtZ-1

1456. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 14:17:34 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <2Ob%e.18013$iW5.5036@fe3.news.blueyonder.co.uk>
Source record: 69702

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:433D46F0.D0533E2B@shaw.ca...
> Lee wrote:
> >
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:dhjcr3$75s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> > > ==============================
> > > There's almost certainly nothing the matter with it.
> > >
> > > You can't expect a small QRP magloop to work as well as a 1/2-wave
> > > vertical with 100 watts.
> > >
> > > What makes you think it is not working as well as it ought to? What
> > > have you compared it with?
> > > ----
> > > Reg, G4FGQ
> > >
> > Hello Reg..
> > Took your advice and built a magloop......
> > I`m comparing the magloop to 5watts on a half-size sloping G5RV and i
find
> > the magloop equivalent to the G5RV on R/X.whilst the magloop is inside
the
> > house!!!..
> > I have a friend about a mile away that i chat to who hears me on the
G5RV at
> > s30+ ......but, not at all on the magloop!!!!......
> > Why am i not being heard on the magloop???? :-/.
H-E-L-P........
> >
> > Lee.....G6ZSG.....
>
> You may have the null pointed at him. Are you able to work other
> stations on the magloop?
>
> Irv VE6BP

I`ll try that tomorrow when i get it on the tower...thanks Irv.

Lee....G6ZSG.....

<snip

1457. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 14:21:27 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <HRb%e.18032$iW5.3412@fe3.news.blueyonder.co.uk>
Source record: 69703

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:433D46F0.D0533E2B@shaw.ca...
> Lee wrote:
> >
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:dhjcr3$75s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> > > ==============================
> > > There's almost certainly nothing the matter with it.
> > >
> > > You can't expect a small QRP magloop to work as well as a 1/2-wave
> > > vertical with 100 watts.
> > >
> > > What makes you think it is not working as well as it ought to? What
> > > have you compared it with?
> > > ----
> > > Reg, G4FGQ
> > >
> > Hello Reg..
> > Took your advice and built a magloop......
> > I`m comparing the magloop to 5watts on a half-size sloping G5RV and i
find
> > the magloop equivalent to the G5RV on R/X.whilst the magloop is inside
the
> > house!!!..
> > I have a friend about a mile away that i chat to who hears me on the
G5RV at
> > s30+ ......but, not at all on the magloop!!!!......
> > Why am i not being heard on the magloop???? :-/.
H-E-L-P........
> >
> > Lee.....G6ZSG.....
>
> You may have the null pointed at him.
Tried that just and got 5x8 with magloop in the house!!!! and only
5watts....

Lee....G6ZSG..

<snip

1458. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 14:34:36 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <02c%e.344310$5N3.103184@bgtnsc05-news.ops.worldnet.att.net>
Source record: 69705

This idea does not appear to be the product of some wacko professor in some obscure junior college. There is a fairly large amount of work ongoing around the world. The first scientific paper with a detailed analysis of a possible role for cosmic rays in lightning generation appears to be from Russia, in 1992.

The unsolved mystery with lightning generation is how it can happen at all. The breakdown strength of air is something like 2 megavolts per meter. No one can come close to finding this sort of field strength in clouds, even the violent clouds associated with thunderstorms. At the same time, it is now well documented that there are gamma-ray bursts that appear to be well correlated to lightning strikes. Gamma-ray generation requires extremely energetic relativistic electrons. Again, there is no clear mechanism for generation of these gamma-rays in ordinary atmospheric processes.

The proposal is that the violent atmospheric processes establish electric fields well beyond normal calm atmospheric levels, but still insufficient for spontaneous breakdown and lightning discharge. The cosmic rays act as a trigger to cause the breakdown and discharge.

I don't have a dog in this fight; I am merely reporting an overview of what I have read.

73,
Gene
W4SZ

nm5k@wt.net wrote:
>> However, this could be relevant, some scientist in Florida studying
>> lightning has theorized that the strike is instigated by cosmic
>> radiation, more specifically gamma ray bursts from blackholes. It kind
>> of makes sense because if the CR creates an ionization trail in the
>> atmosphere, this is a good initial conductive channel for the cloud's
>> potential to drive a current into a suitable ground point. Awesome.
>>
> Ugh....If that were the case, wouldn't you have lightning in good
> weather? Dunno...I think he's had too much gatoraid... MK

1459. Re: OT: Reconcile Qs using SPICE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 14:53:08 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <ojc%e.344393$5N3.26173@bgtnsc05-news.ops.worldnet.att.net>
Source record: 69706

John,

The generic definition of Q is the ratio of energy stored over a cycle to energy dissipated over a cycle. Thus it makes sense to look at energy or power as the entity under analysis. Width of a resonance peak is commonly defined at the half-point, i.e., 3 dB down from the peak.

If you wish to look at current, then the magic number for bandwidth definition is 70.7% of peak current. This number will be found in any number of books, including Terman.

It sounds like you are slightly confused about the definition and application of dB. It is traditional that the basic definition of dB is:

dB = 10 * log10 (P2/P1)

At the same time, a very common adjunct is:

dB = 20 * log10 (I2/I1)

or

dB = 20 * log10 (V2/V1)

As long as the resistance does not vary, it will not matter whether you consider dB to represent a power ratio or a voltage ratio or a current ratio. The numerical result will be the same.

73,
Gene
W4SZ

John - KD5YI wrote:
> Gene Fuller wrote:
>
>> John,
>>
>> It is customary to use 3 dB points for defining the bandwidth when
>> considering resonance phenomena and Q. If you do so, I believe you
>> will find your numbers match more closely.
>>
>> 73,
>> Gene
>> W4SZ
>
> \
>
> Thanks, Gene.

>
> Then my misunderstanding is with Decibels (or SPICE) instead of Q. You
> are correct that, if I check the bandwidth between the 3dB *current*
> points, the numbers come out about right. However, I thought 3dB was a
> power thing and 6dB was a current (or voltage) thing. In any case, if I
> use the 3dB down points of either voltage or current, it works out as
> calculated. So I checked the current at the 3dB points and that put the
> Q very close to the X/R point.
>
> Thanks for your help.
>
> John
>
>
>>
>> John - KD5YI wrote:
>>
>>> Forgive the OT posting, but I know a lot of RF experts hang out here.
>>>
>>> I am trying to learn about Q. I know there is a difference in
>>> component Q and circuit Q. To study this thing, I am using SPICE so
>>> that I will have no instrument loading to affect my setup. I can make
>>> things as perfect as I wish, almost.
>>>
>>> My problem is that I cannot reconcile the two ways of obtaining Q:
>>>
>>> 1. Q = X/R (reactance divided by resistance)
>>> 2. Q = Fo/BW (resonant frequency divided by bandwidth)
>>>
>>> In spice, I have a 1V source, one end connected to ground and the
>>> other end applied to a series string composed of L = 24.833 mH, 458
>>> ohms, and 102 pF and then to ground. Essentially, I have a series
>>> circuit consisting of a source, inductor, resistor, and capacitor.
>>> The resonant frequency should be 100 kHz.
>>>
>>> Using SPICE, I examine the current in the loop. I find that the
>>> current 6dB down points are about +/- 2.5 kHz away from 100 kHz. This
>>> is a Q of about 20.
>>>
>>> But, the reactance is about 15.6 kohms and the resistance is 458
>>> ohms, so the calculated Q is about 34.
>>>
>>> Can someone explain where I'm going wrong here?
>>>
>>> Thanks.
>>>
>>> John - KD5YI

1460. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:08:34 UTC
From: Dave <noone@nowhere.com>
Message-ID: <z7Odne8KguphyaDenZ2dnUVZ_tGdnZ2d@crocker.com>
Source record: 69707

the breakdown strength of air is more like 500kv/m.

the well documented explanaition for how lightning works doesn't expect to break down the whole distance in one shot, as noted that would be impossible given the charges available. that is where the stepped leader comes in that collects charge and advances in steps of 50-100m at a time. this process is easily observable and fairly well understood.

there is some speculation that sprites or jets above large thunderstorms may be either caused by or the cause of high energy discharges from storms. these are relatively recently discovered events and are still being explored but appear to be discharges from the top of thunderstorms up into the ionosphere resulting in aurora like, but very short, visible effects.

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
news:02c%e.344310$5N3.103184@bgtnsc05-news.ops.worldnet.att.net...
> This idea does not appear to be the product of some wacko professor in
> some obscure junior college. There is a fairly large amount of work
> ongoing around the world. The first scientific paper with a detailed
> analysis of a possible role for cosmic rays in lightning generation
> appears to be from Russia, in 1992.
>
> The unsolved mystery with lightning generation is how it can happen at
> all. The breakdown strength of air is something like 2 megavolts per
> meter. No one can come close to finding this sort of field strength in
> clouds, even the violent clouds associated with thunderstorms. At the same
> time, it is now well documented that there are gamma-ray bursts that
> appear to be well correlated to lightning strikes. Gamma-ray generation
> requires extremely energetic relativistic electrons. Again, there is no
> clear mechanism for generation of these gamma-rays in ordinary atmospheric
> processes.
>
> The proposal is that the violent atmospheric processes establish electric
> fields well beyond normal calm atmospheric levels, but still insufficient
> for spontaneous breakdown and lightning discharge. The cosmic rays act as
> a trigger to cause the breakdown and discharge.
>
> I don't have a dog in this fight; I am merely reporting an overview of
> what I have read.
>
>
> 73,
> Gene
> W4SZ
>

> nm5k@wt.net wrote:
>>> However, this could be relevant, some scientist in Florida studying
>>> lightning has theorized that the strike is instigated by cosmic
>>> radiation, more specifically gamma ray bursts from blackholes. It kind
>>> of makes sense because if the CR creates an ionization trail in the
>>> atmosphere, this is a good initial conductive channel for the cloud's
>>> potential to drive a current into a suitable ground point. Awesome.
>>>
>> Ugh....If that were the case, wouldn't you have lightning in good
>> weather? Dunno...I think he's had too much gatoraid... MK
>

1461. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:12:32 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2a91$433d5ccd$97d558d8$27561@ALLTEL.NET>
Source record: 69711

1. Never eat at a place called Moms.
2. Never buy an antenna that has the word "Miracle" in the name or description.

Other things to avoid pertaining to antennas:

"This new principal cannot be modeled in existing programs because of their limitations"

Claims that a particular geometry has magical properties.

E/H CFA or some other alphabet soup descriptions coupled with any of the above.

Things to be sceptical about:

Any antenna that touts take off angle and F/B ratio as primary features.

Low SWR from DC to Daylight

Any 1/4 wave virtical that needs no radials because of some wizzbang loading system.

Special gadgets in the feedline that makes it become a radiating element.

This by no means the extent of things to watch out for. A real education is to read the adds for CB antennas, then when the same claims are seen for a ham antenna put the credit card back in your wallet.

P.T. Barnum should have sold antennas. His statement would then have been "There is a sucker born every 30 seconds"

1462. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:23:13 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <dce50$433d5ccd$97d558d8$27561@ALLTEL.NET>
Source record: 69712

Reg,

I have used cages in the past. Looking at my notes, using 12" (I leave the conversion to you in retaliation for having to convert to metric using your programs) diameter PVC pipe slices. 6 wires spaced at 60 degree separation, resulted in a bandwidth of 316 KHz on 75 meters when mounted 40 feet above ground.

The wire diameters and wire types had almost no effect on the bandwidth, which was defined at the 2:1 SWR points. Using electric fence wire, for example, resulted in 314 KHz.

Anecdotally, it was the quietest antenna I have ever used.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:dhibcp$9bp$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Richard,
>
> Everybody says that thickening the antenna conductor increases the
> bandwidth. And indeed it does.
>
> But nobody ever says by how much the bandwidth is increased.
>
> I think this is because bandwidth is increased by such a small
> proportion that it's not worth the trouble and expense of erecting
> another antenna. Otherwise everybody would have giant, unsightly,
> neighbor-offending, cages in their back yards. But they don't.
>
> I have a program, DIPCAGE2, which calculates the increase in bandwith
> due to increase in dipole diameter which demonstrates this
> disappointing point.
>
> I would like confirmation that my calculations are correct. Do you
> have, or know of, any reliable measurements of bandwidth versus dipole
> conductor diameter. One serious, accurate example might be good
> enough. These days I don't have the facilities to make measurements
> myself.
>
> It doesn't matter how bandwidth is defined but I am not happy with the
> usual 'SWR/bandwidth' definition because of unreliability of SWR
> meters plus the misplaced confidence in them.
>
> In practice, accurate knowledge of antenna bandwidth is not of great
> use since the system operating bandwidth is affected by the
> transmission line and matching network, if there is one. I don't know

> why I'm bothered about it! But I WOULD like to see an appropriate
> degree of importance attached to the subject on these walls.
> ----
> Reggie, G4FGQ.
>
>

1463. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:28:39 UTC
From: richardharrison@webtv.net
Message-ID: <11736-433D59A7-93@storefull-3253.bay.webtv.net>
Source record: 69708

Reg, G4FGQ wrote:
"When the circumference of the antenna rod is one wavelength, Zo = 0."

Bailey adrees with Reg. I was remiss in not quoting Bailey`s caveat. The formula does not hold for circumferences greater than one-quarter wavelength.

Bailey notes that uniform cross section conductors don`t have ubiform impedances throughout their lengths. Zo is inversely proportional to capacitance per unit length. Zo is lower at the antenna feedpoint than at its conductors` middles. At the tips or open ends of antennas, Zo is low. This is explained by the concentration of electric force lines at the open end.

Variation of Zo along an antenna need not deter one from finding a workable average of surge impedance. Bailey has determined this to be:

276 log 1/P, where P=circumference of the conductor in wavelength, for circumferences of less than 1/4-wavelength.

For practical lengths of center-fed dipoles, the feedpoint impedance is determined by combination of incident and reflected waves. Bailey has worked out these for resonant lengths between 1/2 and 5 wavelengths. I posted these long ago. But, for infinite length, Zo must prevail, as no reflection will ever return.

Best regards, Richard Harrison, KB5WZI

1464. Re: OT: Reconcile Qs using SPICE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:41:08 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <o0d%e.9$Z96.1@trnddc05>
Source record: 69709

Gene Fuller wrote:
> John,
>
> The generic definition of Q is the ratio of energy stored over a cycle
> to energy dissipated over a cycle. Thus it makes sense to look at energy
> or power as the entity under analysis. Width of a resonance peak is
> commonly defined at the half-point, i.e., 3 dB down from the peak.
>
> If you wish to look at current, then the magic number for bandwidth
> definition is 70.7% of peak current. This number will be found in any
> number of books, including Terman.
>
> It sounds like you are slightly confused about the definition and
> application of dB. It is traditional that the basic definition of dB is:
>
> dB = 10 * log10 (P2/P1)
>
> At the same time, a very common adjunct is:
>
> dB = 20 * log10 (I2/I1)
>
> or
>
> dB = 20 * log10 (V2/V1)
>
>
> As long as the resistance does not vary, it will not matter whether you
> consider dB to represent a power ratio or a voltage ratio or a current
> ratio. The numerical result will be the same.
>
>
> 73,
> Gene
> W4SZ

Yes.

Actually, I understand the equations. I think my confusion is the
application of them. I was assuming I needed to measure the frequency at the
-6dB points because I was plotting current rather than power.

That's where I went wrong.

Thanks again.

Cheers,
John

1465. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:41:37 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhjmbg$1dsm$1@f04n12.cac.psu.edu>
Source record: 69710

Dave wrote:

<snip>

> "Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message

>>
>>Is it possible then that my latest antenna, an OCF dipole, is a fractal?
>>
>>_______ x ___________________
>>| |
>>| |
>>| |
>>
>>
>>It has those hangy-down ends, so it sure looks a good bit like yours.
>>
>>I don't really consider an antenna as fractal until the wires start
>>folding back toward the center feed in their meandering.
>>
>>Hey! is a folded dipole a fractal antenna?
>>
>>- Mike KB3EIA -
>>
>
> sure, even a non-folded dipole is a fractal.

I suppose everything is self similar!

- Mike KB3EIA -

1466. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:42:49 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhjmdo$1dsm$2@f04n12.cac.psu.edu>
Source record: 69713

Richard Clark wrote:

> On Thu, 29 Sep 2005 15:01:43 -0400, Michael Coslo
> <mjc5@enoughalready.psu.edu> wrote:
>
>>Is it possible then that my latest antenna, an OCF dipole, is a fractal?
>
>
> Hi Mike,
>
> As it so happens (and if properly choked) your OCF dipole is probably
> superior to many fractals on their own terms of being multi resonant.
> And regrettably yes, that would then make it fractal by appropriation
> and claim by the fractal community (something of the Borg mentality
> there).

Darn! Does that mean I have to pay royalties to Dr. Cohen's company?

- Mike KB3EIA -

1467. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:47:12 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhjmlv$1h7o$1@f04n12.cac.psu.edu>
Source record: 69714

Reg Edwards wrote:

>>Reg, take a look at my 2-el fractal 6m beam and tell me
>>what's wrong with 12.6 dBi gain, TOA=7 deg, F/B=18.5 dB.
>>--
>
> ================================
> Cec, You know as well as I do, take-off angles are meaningless
> regarding who might, by some remote coincidence, be at a distance and
> in a direction to receive.

Whatheheck is a takeoff angle anyway? From my limited experience with modeling programs, and anecdotal personal experience, that signal I'm putting out takes off at all angles. Well, at least 180 degrees worth.

It's stronger at some angles than others tho'.

But it doesn't have one angle.

> Front-to-back ratios are equally meaningless. Nobody takes any notice
> of them when a slight change in frequency, a minute change in antenna
> dimensions, or the wind direction acting on an antenna is taken into
> account.

> Hardly parameters which can sensibly be used to compare one antenna
> with another.
>
> I mention this here only for the benefit of novices who may be misled
> by your comments. ;o)

- Mike KB3EIA -

1468. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 15:51:45 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhjmug$1f2s$1@f04n12.cac.psu.edu>
Source record: 69715

Cecil Moore wrote:

> Michael Coslo wrote:
>
>> Isn't that straining the definition of fractal a bit?
>
>
> Nope, that's a well known fractal pattern. It even has
> a name within the fractal community but it slips my
> mind at the moment. It might be a Koch or Hilbert
> pattern, I forget. I haven't looked at this stuff in
> a coon's age.
>
>
> ----+ +----x
> | |
> +----+
>
> That's a first level iteration pattern. The second level
> iteration would replace each of those one foot lines with
> the same overall pattern as above - something like:
>
>
> ----+ +----+ +----+ +----x
> | | | | | |
> +----+ +----+ +----+ +----+
> | |
> +----+ +----+
> | |
> +----+ +----+
> | |
> +----+
>
> There were five wires in the first level iteration. Each of
> those five wires is replaced with the original basic pattern.
> Do you see five repeats of the original pattern in the above?

Thanks for the explanation, Cecil. I do have to say that the 2nd order fractal is what I consider a real fractal. The first order serves well enough as a basis for fractals, and goes some way to explaning them, but tends to be such a common thing that just about any non-linear antenna could get the moniker.

- Mike KB3EIA -

1469. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 16:09:20 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433d4b31@fidonet.org>
Source record: 69716

"nm5k@wt.net" bravely wrote to "All" (29 Sep 05 23:49:44)
--- on the heady topic of "Re: Lightning Question"

nm> From: nm5k@wt.net
nm> Xref: core-easynews rec.radio.amateur.antenna:217745

nm> However, this could be relevant, some scientist in Florida studying
nm> lightning has theorized that the strike is instigated by cosmic
nm> radiation, more specifically gamma ray bursts from blackholes. It kind
nm> of makes sense because if the CR creates an ionization trail in the
nm> atmosphere, this is a good initial conductive channel for the cloud's
nm> potential to drive a current into a suitable ground point. Awesome.

nm> Ugh....If that were the case, wouldn't you have lightning in good
nm> weather? Dunno...I think he's had too much gatoraid... MK

I think it opens up a new alternative to the lightning rod. Might some
form of radiation shielding be just as effective instead? If there are
no air ionization paths of cosmic origin under the shield then the
lightning has no place to start? Six inches of lead over the antenna
tower doesn't seem right though... perhaps some type of plastic
umbrella? Does anyone know if mountain top radar domes are hit less
often than other aerials?

A*s*i*m*o*v

... Forcast for tonight: Dark.

1470. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 16:11:07 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433d4b32@fidonet.org>
Source record: 69717

"Reg Edwards" bravely wrote to "All" (30 Sep 05 03:28:25)
--- on the heady topic of "Re: UWB Antennas, why these shapes?"

Bailey talks about bandwidth vs thickness. A first speculation is that
the increase in bandwidth as the conductor is made thicker is a
consequence of the longer diagonal dimension. One way to determine BW
would measure the antenna constants to get the Q. Then the Q is used
to calculate bandwidth just as in a parallel tank. However, a real
antenna has many unpredictable factors which affect it (for example
feed capacitance) such that other resonnances can appear close to
natural resonnance. These would affect bandwidth and mess up the
parallel tank analogy. Sorry can't help there...

A*s*i*m*o*v

RE> From: "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com>
RE> Xref: core-easynews rec.radio.amateur.antenna:217726

RE> Everybody says that thickening the antenna conductor increases the
RE> bandwidth. And indeed it does.

RE> But nobody ever says by how much the bandwidth is increased.

... "Let them eat pretzels." -- Laura Bush

1471. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 16:17:41 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Fyd%e.7900$6e1.6080@newssvr14.news.prodigy.com>
Source record: 69718

Michael Coslo wrote:
> Whatheheck is a takeoff angle anyway?

As used in EZNEC, it is the angle at which the gain
is maximum.
--
73, Cecil, http://www.qsl.net/w5dxp

1472. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 16:56:53 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jqriro5dr6731@corp.supernews.com>
Source record: 69719

Bob Miller wrote:
> On Thu, 29 Sep 2005 15:55:48 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>
>>http://apnews.myway.com/article/20050929/D8CTUA3O7.html
>
>
> Little confusing -- the story doesn't explain how the signal gets to
> the house -- via power lines, cable, phone, wireless?
>
> Regardless, guess the house would be a buzz bomb of hash.
>
> bob
> k5qwg
>
My impression of this story is that they are talking about a LAN system here not a ISP system. Therefore there should not be the broadband interferance of a BPL system.

Of course I could be wrong.

Dave WD9BDZ

1473. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 17:09:51 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11jqsb5skmkjrd2@corp.supernews.com>
Source record: 69720

Fred W4JLE wrote:

> 1. Never eat at a place called Moms.
> 2. Never buy an antenna that has the word "Miracle" in the name or
> description.
>
> Other things to avoid pertaining to antennas:
>
> "This new principal cannot be modeled in existing programs because of their
> limitations"
>
> Claims that a particular geometry has magical properties.
>
> E/H CFA or some other alphabet soup descriptions coupled with any of the
> above.
>
> Things to be sceptical about:
>
> Any antenna that touts take off angle and F/B ratio as primary features.
>
> Low SWR from DC to Daylight
>
> Any 1/4 wave virtical that needs no radials because of some wizzbang loading
> system.
>
> Special gadgets in the feedline that makes it become a radiating element.
>
> This by no means the extent of things to watch out for. A real education is
> to read the adds for CB antennas, then when the same claims are seen for a
> ham antenna put the credit card back in your wallet.
>
> P.T. Barnum should have sold antennas. His statement would then have been
> "There is a sucker born every 30 seconds"
>
>
>
>

I think that the greatest thing I ever saw was a antenna enhancement
attachment that a friend of mine was conned into selling. It looked just
like the gamma match from a Cushcraft Ringo antenna. This gadget was
fastened to your antenna with a hose clamp, had a ring shapped element
and a wiper arm just like the Ringo. To the credit of the developer he
atleast said that he didn't know just what his gadget would do, why the
Ringo (not mentioned by name) had one but what could hurt by enriching

his bank account.

Still laughing about it.

Dave WD9BDZ

BTW: This was a CB radio thing, not Amateur Radio.

1474. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 17:34:55 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <433D7754.F019C9B2@shaw.ca>
Source record: 69721

Lee wrote:
>
> "Irv Finkleman" <finkirv@shaw.ca> wrote in message
> news:433D46F0.D0533E2B@shaw.ca...
> > Lee wrote:
> > >
> > > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > > news:dhjcr3$75s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> > > > ==============================
> > > > There's almost certainly nothing the matter with it.
> > > >
> > > > You can't expect a small QRP magloop to work as well as a 1/2-wave
> > > > vertical with 100 watts.
> > > >
> > > > What makes you think it is not working as well as it ought to? What
> > > > have you compared it with?
> > > > ----
> > > > Reg, G4FGQ
> > > >
> > > Hello Reg..
> > > Took your advice and built a magloop......
> > > I`m comparing the magloop to 5watts on a half-size sloping G5RV and i
> find
> > > the magloop equivalent to the G5RV on R/X.whilst the magloop is inside
> the
> > > house!!!..
> > > I have a friend about a mile away that i chat to who hears me on the
> G5RV at
> > > s30+ ......but, not at all on the magloop!!!!......
> > > Why am i not being heard on the magloop???? :-/.
> H-E-L-P........
> > >
> > > Lee.....G6ZSG.....
> >
> > You may have the null pointed at him.
> Tried that just and got 5x8 with magloop in the house!!!! and only
> 5watts....
>
> Lee....G6ZSG..
>
Figured as much. You might want to try the loop in a horizontal configuration
for omnidirectional work. You'll probably find that you can operate it horizontally
just a few inches above the ground although I recommend a couple feet.

Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1475. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 17:49:32 UTC
From: Dave <noone@nowhere.com>
Message-ID: <7pednVJhb64o56DeRVn-oA@crocker.com>
Source record: 69722

"Buther Boy" <me@privacy.net> wrote in message
news:3v0pj1h66mvi1c2unrrhc43t9eadjcuthj@4ax.com...
> Hi, just ordered this awesome antenna. Anyone have any experiences
> they'd like to share regarding its use?

do you have to keep it refrigerated after opening??

1476. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 18:48:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nl1rj1daflg9m5dnnjb4ogiruu4ukrim2m@4ax.com>
Source record: 69723
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 30 Sep 2005 13:23:43 -0500, Matt Osborn <> wrote:
>>is adequate to the task
>Clearly, your need to embellish is not only unnecessary, it is also
>irrelevant.

Hi Matt,

Yet another prejudice I see. In the face of your wandering the metaphysical landscape of Why? and finding nothing suitable to alight on, the need for embellishment seems to be your patent. That you find the discussion irrelevant is yet more evidence of the Nihilistic propensity to skepticism and denial.

73's
Richard Clark, KB7QHC

1477. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 19:09:56 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <84g%e.3872$KQ5.520@newssvr12.news.prodigy.com>
Source record: 69724
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

kashe@sonic.net wrote:
> On Thu, 29 Sep 2005 02:54:34 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>kashe@sonic.net wrote:
>>
>>>>Tom Donaly wrote:
>>>>
>>>>
>>>>>Faith and works are, like voltage and current, inextricably intertwined.
>>>
>>>
>>> They are not.
>>>
>>>
>>>
>>>>>The proof of faith is the good work. Those who do no good have no faith.
>>>
>>>
>>> Your logic book get lost in the hurricane? Come back when you
>>>can name the logical fallacy you just committed.
>>
>>Some of the lower forms of American Christianity try to separate faith
>>and works. That allows them salvation without substance, the lazy man's
>>path to life without end.
>
>
> in your narrow view.
>
>
>> My last two sentences are statements of truth
>
>
> "I fear the man who has all the answers." -- Father James
> Marien, S.J. -- 1961 -- in my presence.
>
>
>>, not a logical
>>progression.
>
>

> As written, they beg to be read as an incomplete syllogism.

In other words, you made the connection up in your head. Typical.

>
>
>
>>Each has to be taken alone, by itself. (A religious
>>fundamentalist insisting on logical consistency constitutes a
>>pretty good joke.) Let me repeat: Those who do no good have no
>>faith.
>
>
> Repitition does not include leaving off the first half of the
> line you wrote. In a humorous logic treatise, your statement would be
> named "The Proof from Blatant Assertion".
>
>
>>Next time you and your friends are sitting around speaking
>>in tongues, you should discuss this. Maybe, if you all think real
>>hard, together, you can puzzle out what it means.
>
>
>
>>73,
>>Tom Donaly, KA6RUH
>
>

Unable to address the truth of what I wrote, you fantasize an argument
out of your sophomoric command of medieval logic. That, too, is typical,
if somewhat pathetic, since your religion is based on unquestioning
belief, superstition, and a fundamental opposition to science and
inquiring thought. Give it up. No brain can justify the brainless.
73,
Tom Donaly, KA6RUH

1478. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 19:50:33 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhk4u9$1doi$1@f04n12.cac.psu.edu>
Source record: 69725

Fred W4JLE wrote:

> 1. Never eat at a place called Moms.
> 2. Never buy an antenna that has the word "Miracle" in the name or
> description.
>
> Other things to avoid pertaining to antennas:
>
> "This new principal cannot be modeled in existing programs because of their
> limitations"
>
> Claims that a particular geometry has magical properties.
>
> E/H CFA or some other alphabet soup descriptions coupled with any of the
> above.
>
> Things to be sceptical about:
>
> Any antenna that touts take off angle and F/B ratio as primary features.
>
> Low SWR from DC to Daylight
>
> Any 1/4 wave virtical that needs no radials because of some wizzbang loading
> system.
>
> Special gadgets in the feedline that makes it become a radiating element.
>
> This by no means the extent of things to watch out for. A real education is
> to read the adds for CB antennas, then when the same claims are seen for a
> ham antenna put the credit card back in your wallet.
>
> P.T. Barnum should have sold antennas. His statement would then have been
> "There is a sucker born every 30 seconds"

Regarding the miracle Whip antenna.

1. It isn't a miracle.

2. It does not work "great"

3. However, it gets a signal out within its abilities. A good operator
can work a lot of stations with one.

4. The folks who build and sell it are pretty honest about it's
performance. The only part I have an exception with is their performance
being rated in regards to SWR. But they put it right out there, so no

one can say the information wasn't available.

5. Do we really think that a person believes that the antenna is going to be some kind of top performer? It's a niche antenna.

6. Is it better to have a modest setup, or no setup at all? Seems like a nice way to have a quick setup and operating station in a hotel room or while traveling. Maybe even for mountain topping.

- Mike KB3EIA -

1479. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 19:59:57 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dhk5ft$1d4g$1@f04n12.cac.psu.edu>
Source record: 69626

Cecil Moore wrote:

> Michael Coslo wrote:
>
>> Whatheheck is a takeoff angle anyway?
>
>
> As used in EZNEC, it is the angle at which the gain
> is maximum.

It isn't a very good term then. It makes it sound as if it is the angle at which the RF "takes off" at, when in fact it is not.

And it seems that a lot of people get really hung up on that, thinking that there is some kind of blob of RF that leaves the antenna at X angle. Even when people "know" that isn't the case, we still see them thinking that way.

Maybe we should start using the term "Takeoff Azimuth" too? ;^)

- Mike KB3EIA -

1480. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 20:06:44 UTC
From: Ulf B <nospam@no.com>
Message-ID: <oVg%e.34997$d5.190755@newsb.telia.net>
Source record: 69627

"Buther Boy" <me@privacy.net> skrev i meddelandet
news:3v0pj1h66mvi1c2unrrhc43t9eadjcuthj@4ax.com...
> Hi, just ordered this awesome antenna. Anyone have any experiences
> they'd like to share regarding its use?
>
I have used one for 1 year now so this is my opinion:

It is a fun thing to play with but off course there are limitations. It's
exactly as good as its size, which of course is the case with all antennas.
It's quite good made if you look inside the box. It works quite well for
recieving on 80 and 160 as well.

It requires no counterpoise and actually if you try to improve it with a
good RF-ground it will not tune.... Is there someone out there who can
explain this to me..... ;-)

73 from SM0FKI /Ulf

1481. Re: OT: Reconcile Qs using SPICE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 21:27:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhkakn$4t1$1@engnntp2.cig.mot.com>
Source record: 69628

John, OOPS... Like they said in Planes, Trains and Automobiles; "You're going the wrong way!"

With all due respect, I suggest you do not understand the equations and how to apply them. Don't feel bad, though, this is a very common problem. You fell into a common trap. I have for years posed a question to new Engineers:

Why is a "Voltage dB" twice as big as a "Power dB" ?. .. Sorry Alex.

Just to see if they really understand and have some fun as well... a little good natured hazing, if you will.

What Gene says is 100%, but I clarify. This is the best way I know how to explain this, so if there is a better way, so be it...

Just a little background:

The decibel is one tenth of a Bel. Just like kilowatt is 1000 watts and meg ohm is 10^6 ohms. It is a prefixed unit. The Bel (named after good ole' Alex Grham) represents a Power ratio of 10:1 (or 1:10) PERIOD! NO IF's AND's or BUT's. (note that here is nothing in there about voltage or current)

[That's also why the "B is capitalized and the "d" isn't]

You can't "legally" talk about dB in voltage. Sorry, it is ABSOLUTELY WRONG! [[NO flames here, let me explain]] HOWEVER, strange beings that we are (and at some times smarter than at others), we have accepted, as a common practice, the use of dB when referring to voltage and current ratios because we, knowing about math and electronics, understand that there is a relationship between power and these quantities (the all too familiar and confusing formulas).

Now, approaching your issue...

IF we have some circuit and make two measurements and the difference happens to be 3 dB, we had to make that measurement in some way. _IF_ we make that measurement with a voltmeter, THEN we use the "dB Volts" formula and we will get an answer of 3 dB. _IF_ we use an ammeter...you know the rest. Uh, here you expect me to say _IF_ you use a watt meter..., but I wont, because you can't measure power. This is from the "You can't get there from here...you have to go somewhere else first." department... Power is always calculated [[I'm sure this'll bring on the flame war, but understand what I say first, then decide if you want to get into that war]]

H O W E V E R...

If you figure out what the two powers are that were 3 dB apart (by whatever means you desire) you WILL see that they are in a ratio to 2 to 1.

Now a clincher... __IF__ you go back and look at the voltages (or currents) you measure at the 3dB point, you will see that they are __NOT__ in a ratio of 2 to 1! the ratio'll be 1.414 (sqr root 2).

This is because POWER is a second order quantity (in math terms) In Ham terms, POWER IS VOLTS TIMES AMPS. The product of two measurable quantities. IF the POWER is twice, then the voltage MUST be 1.414 times and the current MUST be 1.414 times... Then 1.414 X 1.414 = 2 DONE!

Said another way, HALF POWER is 0.707 the Voltage (AND current) _not_ half.

[[P.S. Put 1.414 (or 0.707 into the volts/current equations]]

THEREFORE, IT _AIN'T_ "6 dB volts". If you like {and to hear old Alex spin], call it 3 dB Volts, 3 dB amps, __AND__ 3 dB POWER, though the addition of "volts" and "amps" is sort of wrong (at least possibly mis-leading) and the addition of "power" is un-necessary (remember the definition of dB?). 3dB is 3dB power ONLY! (but it is different ratios when looking at the power vs. the current or voltage)

Now to the point, your point. The 3 dB point on your circuit _IS_ the 3dB point in current, it _IS_ the 3dB point in voltage, AND it _is_ the 3 db point in Power. Did I already say that...? I could give a specific example, but rather than me working that hard, go back and measure (well, let Spice show you) your current AND voltage at your 3 dB points and you'll see that the formulas DO apply. They will be only 0.707 down, not 0.5.

Hope this helps. If it doesn't then perhaps one of the flame responses will help you understand better. Good luck.

73, Steve, K9DCI

Half _voltage_ is 6 dB!

"John - KD5YI" <groups5munge@verizon.net> wrote in message news:o0d%e.9$Z96.1@trnddc05...

> Gene Fuller wrote:
> > John,
> >
> > The generic definition of Q is the ratio of energy stored over a cycle
> > to energy dissipated over a cycle. ...[snip...] 3 dB down from the peak.
> >
> > If you wish to look at current, then the magic number for bandwidth
> > definition is 70.7% of peak current. ...

********** There's this number in Gene's post.

1482. Re: Explain Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 21:42:37 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhkbgd$5f2$1@engnntp2.cig.mot.com>
Source record: 69630

Bill,

Short answer.

I've often speculated about the answer to this same question and what I figured, is correct. Here's the mental model I use.

Quick look at Cecil's references shows that the voltage balun has an output center tap that is referenced (connected) to the coax input ground (shield). Thus making the two outputs balanced, voltage-wise in reference to the coax shield. a.k.a. a center tapped secondary, so-to-speak, which is referenced to "ground" thus making the two sides equal in voltage (peak).

Looking at http://www.eznec.com/Amateur/Articles/Baluns.pdf
Figure A3-3, note that there is NO connection between primary and secondary, so the voltage can do anything it wants, but the current at both ends of the secondary will be equal. Note that there are other ways to get this result where the primary and secondary (or the two windings) _ARE_ connected in some way. However, this is an easy way to see the intended difference.

"Jennie" <hnix@adelphia.net> wrote in message
news:CtWdnT9nitEh0aHeRVn-sQ@adelphia.com...
> Would someone be kind enough to explain a balun both voltage and current?
>
> TY
>
> --
>
> Bill
> KI4HPZ
>
>
>

1483. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 21:49:58 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhkbu6$5q2$1@engnntp2.cig.mot.com>
Source record: 69629

"Dave" <noone@nowhere.com> wrote in message
news:n62dnSYO0P7-vqDeRVn-og@crocker.com...
>
> <nm5k@wt.net> wrote in message
> news:1128062984.923437.180830@g49g2000cwa.googlegroups.com...
> > However, this could be relevant, some scientist in Florida studying
> > lightning has theorized that the strike is instigated by cosmic
> > radiation, more specifically gamma ray bursts from blackholes. It kind
> > of makes sense because if the CR creates an ionization trail in the
> > atmosphere, this is a good initial conductive channel for the cloud's
> > potential to drive a current into a suitable ground point. Awesome.
> >
> > Ugh....If that were the case, wouldn't you have lightning in good
> > weather? Dunno...I think he's had too much gatoraid... MK
> >
>
> there actually is a clear air current that flows all the time, you can
> actually draw power from it with a relatively small 'antenna'. in fact,
> many years ago one of the 'popular' magazines published plans for a motor
> that ran off the clear air electric field, you just had to be sure to
> disconnect it before a thunderstorm came through.

That's what I said. put a VOM on your antenna on a clear day.
Steve, K9DCK
>
>

1484. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 21:53:58 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhkc5m$5tr$1@engnntp2.cig.mot.com>
Source record: 69631

==========

OK, but that tickly feeling consists of many spikey pulses, and from Fourier, pulses consist of a whole series of higher order frequencies. However, this could be relevant, some scientist in Florida studying lightning has theorized that the strike is instigated by cosmic radiation, more specifically gamma ray bursts from blackholes. It kind of makes sense because if the CR creates an ionization trail in the atmosphere, this is a good initial conductive channel for the cloud's potential to drive a current into a suitable ground point. Awesome.

A*s*i*m*o*v

You need to do lots more reading in the right places. While possible for Gamma ionization (If it actually does ionize air) to help in some cases, the local field is many orders of magnitude higher than that required to break down the air in the first place without any help from the cosmos.
Steve, K9DCI

1485. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 21:59:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhkcgg$67f$1@engnntp2.cig.mot.com>
Source record: 69637

"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message
news:MSGID_1=3a167=2f133.0_433d4b31@fidonet.org...
"nm5k@wt.net" bravely wrote to "All" (29 Sep 05 23:49:44)
--- on the heady topic of "Re: Lightning Question"

I think it opens up a new alternative to the lightning rod. Might some
form of radiation shielding be just as effective instead? If there are
no air ionization paths of cosmic origin under the shield then the
lightning has no place to start? Six inches of lead over the antenna
tower doesn't seem right though... perhaps some type of plastic
umbrella? Does anyone know if mountain top radar domes are hit less
often than other aerials?

A*s*i*m*o*v

... Forcast for tonight: Dark.

"...alternative to the lightning rod. ..."
Their purpose it to bleed off the charge so it can't develop to the point
where the leaders can start and prevent the strike. You need to get the
charge out of there, not let it continue to build until it finds another
path it can breach. Charge concentrates at a point and low level ionization
bleeds off the charge "safely".

You put large round balls on static generators so that you DO allow the
charge to build up and not bleed off.

73, Steve K9DCI

1486. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 22:06:57 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhkcu1$6if$1@engnntp2.cig.mot.com>
Source record: 69636

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
news:02c%e.344310$5N3.103184@bgtnsc05-news.ops.worldnet.att.net...
> ...
>
> The unsolved mystery with lightning generation is how it can happen at
> all. The breakdown strength of air is something like 2 megavolts per
> meter.

The number we used in tubes was 10,000 V per inch. Unless my math is off,
this is only around 400kV/meter. Besides, what about the local field
strength, like at the tip of the lightning rod? Can there be a cloud effect
that somehow concentrates charge and gets the corona started for the
leaders?

> ...well documented that there are gamma-ray bursts
> that appear to be well correlated to lightning strikes. ...

Interesting.

73, Steve, K9DCI

1487. Re: Lightning Question [OOPS]

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 22:14:58 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhkdd2$6u9$1@engnntp2.cig.mot.com>
Source record: 69635

I got distracted and hit send B4 completing an edit. I don't see any relavance of the pulses and frequency part of your post. When hairs stand up on your arm the small movement tickles. Touch them with something. I see no pulses to talk about.
The Gama part sounds plausable.

73, Steve

From: "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com>
Subject: Re: Lightning Question
Date: Friday, September 30, 2005 4:53 PM

==========
OK, but that tickly feeling consists of many spikey pulses, and from Fourier, pulses consist of a whole series of higher order frequencies. However, this could be relevant, some scientist in Florida studying lightning has theorized that the strike is instigated by cosmic radiation, more specifically gamma ray bursts from blackholes. It kind of makes sense because if the CR creates an ionization trail in the atmosphere, this is a good initial conductive channel for the cloud's potential to drive a current into a suitable ground point. Awesome.

A*s*i*m*o*v

You need to do lots more reading in the right places. While possible for Gamma ionization (If it actually does ionize air) to help in some cases, the local field is many orders of magnitude higher than that required to break down the air in the first place without any help from the cosmos.
Steve, K9DCI

1488. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 22:20:50 UTC
From: richardharrison@webtv.net
Message-ID: <16594-433DBA42-441@storefull-3251.bay.webtv.net>
Source record: 69632

Gene Fuller wrote:
'the unsolved mystery with lightning generation is how it can happen at all."

True. Distribution of the charges involved depends on temperatures, air currents, etc. For a given quantity of charge (Q), it equals the capacitance between the regions which hold it times the voltage between the regions. Q=CE.

If you increase the distance between the regions it brings the capacitance down, so the voltage must rise.

Natural forces may be adding to the total charge too.

You don`t need enough voltage to leap across a giant chasm to initiate lightning. You just have to start ionization when conditions are right and it will sustain itself.

Air consists of gas molecules which mostly have no net charge in their normal states. One of these molecules may be struck by an electron, dislodging one of its atom`s orbital electrons, and leaving it with a net positive charge. This process may continue, giving an ionized area which is conductive. This is likely at higher altitudes due to reduced atmospheric pressure. At sea level, normal pressure is 760 mm of mercury, but at 19 miles high, the pressure is only 1% of that at sea level. At rarified pressure, gas easily becomes ionized. Neon is under only about 12 mm of mercury pressure in the glass tubes of a neon sign and conducts readily.

The ionosphere is composed of ionized layers high in the earth`s atmosphere. Gas and ionization are mobile. A large voltage gradient produces ionization.

Working in a high-power shortwave broadcasting plant, I`ve seen ionized plumes on transmission lines. They don`t usually strike across the wires. They just follow the hot air they make, flaming upward.

Lightning is discharging some large capacitance which seems to produce its destination. A combination of forces directs its path.

Best regards, Richard Harrison, KB5WZI

1489. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 22:38:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <I7j%e.3931$KQ5.1822@newssvr12.news.prodigy.com>
Source record: 69633

Michael Coslo wrote:
> Cecil Moore wrote:
>> As used in EZNEC, it (TOA) is the angle at which the gain
>> is maximum.
>
> It isn't a very good term then. It makes it sound as if it is the
> angle at which the RF "takes off" at, when in fact it is not.

Well, it is the angle at which the peak of the RF takes off.
If one understands what it means, it is a useful concept.

> And it seems that a lot of people get really hung up on that,
> thinking that there is some kind of blob of RF that leaves the antenna
> at X angle. Even when people "know" that isn't the case, we still see
> them thinking that way.

Like any other concept, the user needs to understand the
definition. If the TOA of a ground plane antenna is 7 degrees,
that bodes well for DX, not well for local stuff.

For instance, the take-off-angle for a low dipole is 90
degrees, i.e. straight up. Good for NVIS, terrible for DX.
--
73, Cecil http://www.qsl.net/w5dxp

1490. Re: OT: Reconcile Qs using SPICE

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 22:46:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <afj%e.3934$KQ5.964@newssvr12.news.prodigy.com>
Source record: 69634

Steve Nosko wrote:
> What Gene says is 100%, but I clarify. This is the best way I know how to
> explain this, so if there is a better way, so be it...

How about this?

Given:
P1 = V1^2/Z0, P2 = V2^2/Z0

P1/P2 = (V1/V2)^2

log(P1/P2) = 2*log(V1/V2)

10 log(P1/P2) = 20 log(V1/V2)

Sometimes an equation is worth a thousand words. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1491. Winding details for antenna choke ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 23:23:09 UTC
From: David <groups@orbitcoms.com>
Message-ID: <xNj%e.3757$U51.3488@news-server.bigpond.net.au>
Source record: 69638

Hi,
Is there a method for obtaining the number of turns for a given
diameter for the antenna choke ? (I am not sure if this will be simple
air-core coil formula or "suck it and see" type arrangement).
ie. I have a sleeve antenna at 915MHz constructed from RG316 coaxial
cable. It is fed up the centre of 1/4" nylon tubing. I want to create a
choke at the feedpoint from the RG316 wound around the outside of the
1/4" tubing but not sure of how many turns would be required.

Thanks in advance

Regards

David

1492. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-09-30 23:39:44 UTC
From: "Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET>
Message-ID: <b1k%e.5993$np2.5199@fe02.lga>
Source record: 69639

Isn't their marketing slogan: "If it works good, it's a Miracle"? ;-)

--
-larry
K8UT
"Buther Boy" <me@privacy.net> wrote in message
news:3v0pj1h66mvi1c2unrrhc43t9eadjcuthj@4ax.com...
> Hi, just ordered this awesome antenna. Anyone have any experiences
> they'd like to share regarding its use?
>
> Buther Boy
>
> --
> Remove the word Spam from my e-mail to contact me...
> http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
> ~

1493. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:14:37 UTC
From: Jennie <hnix@adelphia.net>
Message-ID: <PJadnfEoK8JxSaDeRVn-gw@adelphia.com>
Source record: 69640

If you guys want to throw money away just send 1/2 of it and you keep 1/2. Both of us will be winners. MW is junk. Lots of MW are used for fancy decorations in shacks across the world. Buy a good tuner and some cheap wire. The LDG Z11 Pro cost about the same as the MW and will tune house gutters .5-125 Watts.

Have a super day!

--

Bill
KI4HPZ

"Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET> wrote in message news:b1k%e.5993$np2.5199@fe02.lga...
> Isn't their marketing slogan: "If it works good, it's a Miracle"? ;-)
>
>
> --
> -larry
> K8UT
> "Buther Boy" <me@privacy.net> wrote in message
> news:3v0pj1h66mvi1c2unrrhc43t9eadjcuthj@4ax.com...
>> Hi, just ordered this awesome antenna. Anyone have any experiences
>> they'd like to share regarding its use?
>>
>> Buther Boy
>>
>> --
>> Remove the word Spam from my e-mail to contact me...
>> http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
>> ~
>
>

1494. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:24:45 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433dd74e$0$32205$39cecf19@news.twtelecom.net>
Source record: 69641

Bob Miller wrote:

>
> It's not quite shortwave, but National Public Radio plays BBC
> programming from about midnight to 5 a.m. (at least my local station
> does)
>
> Bob
> k5qwg
>

Great. Fine programming when no one can listen to it surrounded by tripe.

"I'll just go out back and shoot myself". Name the famous BBC Radio
Play that's from.

tom
K0TAR

1495. Re: Winding details for antenna choke ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:27:32 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <11jrlvk8a6mv337@corp.supernews.com>
Source record: 69643

"David" <groups@orbitcoms.com> wrote in message
news:xNj%e.3757$U51.3488@news-server.bigpond.net.au...
> Hi,
> Is there a method for obtaining the number of turns for a given
> diameter for the antenna choke ? (I am not sure if this will be simple
> air-core coil formula or "suck it and see" type arrangement).
> ie. I have a sleeve antenna at 915MHz constructed from RG316 coaxial
> cable. It is fed up the centre of 1/4" nylon tubing. I want to create a
> choke at the feedpoint from the RG316 wound around the outside of the 1/4"
> tubing but not sure of how many turns would be required.
>
> Thanks in advance
>
> Regards
>
> David

How about a ferrite choke?
73
H.

1496. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:27:57 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <hKk%e.16396$Xl2.10425@twister.nyroc.rr.com>
Source record: 69642
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

<Matt Osborn> wrote in message
news:0h0rj1ho78qtofjckgk0nrrqu4mgn8di5k@4ax.com...
> On Thu, 29 Sep 2005 22:08:49 -0700, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>>is adequate to the task
>
> Clearly, your need to embellish is not only unnecessary, it is also
> irrelevant.
>
>
> -- msosborn at msosborn dot com

1497. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:28:26 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <KKk%e.16397$Xl2.11961@twister.nyroc.rr.com>
Source record: 69644
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:84g%e.3872$KQ5.520@newssvr12.news.prodigy.com...
> kashe@sonic.net wrote:
>> On Thu, 29 Sep 2005 02:54:34 GMT, "Tom Donaly"
>> <dtdonaly@sbcglobal.net> wrote:
>>
>>
>>>kashe@sonic.net wrote:
>>>
>>>>>>Tom Donaly wrote:
>>>>>
>>>>>
>>>>>>>Faith and works are, like voltage and current, inextricably
>>>>>>intertwined.
>>>>
>>>>
>>>> They are not.
>>>>
>>>>
>>>>
>>>>>>The proof of faith is the good work. Those who do no good have no
>>>>>faith.
>>>>
>>>>
>>>> Your logic book get lost in the hurricane? Come back when you
>>>>can name the logical fallacy you just committed.
>>>
>>>Some of the lower forms of American Christianity try to separate faith
>>>and works. That allows them salvation without substance, the lazy man's
>>>path to life without end.
>>
>>
>> in your narrow view.
>>
>>
>>> My last two sentences are statements of truth
>>
>>
>> "I fear the man who has all the answers." -- Father James
>> Marien, S.J. -- 1961 -- in my presence.
>>
>>

>>>, not a logical progression.
>>
>>
>> As written, they beg to be read as an incomplete syllogism.
>
> In other words, you made the connection up in your head. Typical.
>
>
>>
>>
>>
>>>Each has to be taken alone, by itself. (A religious
>>>fundamentalist insisting on logical consistency constitutes a
>>>pretty good joke.) Let me repeat: Those who do no good have no
>>>faith.
>>
>>
>> Repitition does not include leaving off the first half of the
>> line you wrote. In a humorous logic treatise, your statement would be
>> named "The Proof from Blatant Assertion".
>>
>>
>>>Next time you and your friends are sitting around speaking
>>>in tongues, you should discuss this. Maybe, if you all think real
>>>hard, together, you can puzzle out what it means.
>>
>>
>>
>>>73,
>>>Tom Donaly, KA6RUH
>>
>
> Unable to address the truth of what I wrote, you fantasize an argument
> out of your sophomoric command of medieval logic. That, too, is typical,
> if somewhat pathetic, since your religion is based on unquestioning
> belief, superstition, and a fundamental opposition to science and
> inquiring thought. Give it up. No brain can justify the brainless.
> 73,
> Tom Donaly, KA6RUH
>

1498. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:29:42 UTC
From: Charlie <charlie@play.com>
Message-ID: <11jrm3tb4g04cc6@news.supernews.com>
Source record: 69645
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt..thx for turning me on to Spinoza....

--

Charlie

<Matt Osborn> wrote in message
news:d0krj158a9aifpk3s92eovrr0nupp0mo1u@4ax.com...
> On Fri, 30 Sep 2005 11:48:06 -0700, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>>On Fri, 30 Sep 2005 13:23:43 -0500, Matt Osborn <> wrote:
>>>>is adequate to the task
>>>Clearly, your need to embellish is not only unnecessary, it is also
>>>irrelevant.
>>
>>Hi Matt,
>>
>>Yet another prejudice I see. In the face of your wandering the
>>metaphysical landscape of Why? and finding nothing suitable to alight
>>on, the need for embellishment seems to be your patent. That you find
>>the discussion irrelevant is yet more evidence of the Nihilistic
>>propensity to skepticism and denial.
>>
> Simply avoiding the question? Your blindness hinders me not.
>
>
> -- msosborn at msosborn dot com

1499. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:30:04 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <gMk%e.16398$Xl2.7623@twister.nyroc.rr.com>
Source record: 69646
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Your own stupidity is hindering you. Take it to e-mail, moron.

<Matt Osborn> wrote in message
news:d0krj158a9aifpk3s92eovrr0nupp0mo1u@4ax.com...
>
> Simply avoiding the question? Your blindness hinders me not.
>
>
> -- msosborn at msosborn dot com

1500. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:30:19 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <vMk%e.16399$Xl2.6284@twister.nyroc.rr.com>
Source record: 69647
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Charlie" <charlie@play.com> wrote in message
news:11jrm3tb4g04cc6@news.supernews.com...
> Matt..thx for turning me on to Spinoza....
>
> --
>
> Charlie
>
>
>
>
>
>
>
> <Matt Osborn> wrote in message
> news:d0krj158a9aifpk3s92eovrr0nupp0mo1u@4ax.com...
>> On Fri, 30 Sep 2005 11:48:06 -0700, Richard Clark <kb7qhc@comcast.net>
>> wrote:
>>
>>>On Fri, 30 Sep 2005 13:23:43 -0500, Matt Osborn <> wrote:
>>>>is adequate to the task
>>>>Clearly, your need to embellish is not only unnecessary, it is also
>>>>irrelevant.
>>>
>>>Hi Matt,
>>>
>>>Yet another prejudice I see. In the face of your wandering the
>>>metaphysical landscape of Why? and finding nothing suitable to alight
>>>on, the need for embellishment seems to be your patent. That you find
>>>the discussion irrelevant is yet more evidence of the Nihilistic
>>>propensity to skepticism and denial.
>>>
>> Simply avoiding the question? Your blindness hinders me not.
>>
>>
>> -- msosborn at msosborn dot com
>
>

1501. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:31:42 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <ONk%e.16400$Xl2.4139@twister.nyroc.rr.com>
Source record: 69648
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:nl1rj1daflg9m5dnnjb4ogiruu4ukrim2m@4ax.com...
> On Fri, 30 Sep 2005 13:23:43 -0500, Matt Osborn <> wrote:
>>>is adequate to the task
>>Clearly, your need to embellish is not only unnecessary, it is also
>>irrelevant.
>
> Hi Matt,
>
> Yet another prejudice I see. In the face of your wandering the
> metaphysical landscape of Why? and finding nothing suitable to alight
> on, the need for embellishment seems to be your patent. That you find
> the discussion irrelevant is yet more evidence of the Nihilistic
> propensity to skepticism and denial.
>
> 73's
> Richard Clark, KB7QHC

1502. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 00:58:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gumrj11qu1vef9k8tl6ei2jgf9ut45q188@4ax.com>
Source record: 69649
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 30 Sep 2005 18:54:25 -0500, Matt Osborn <> wrote:

>Simply avoiding the question? Your blindness hinders me not.

Hi Matt,

The question?

"What is 6 times 7?"

Any question is certainly not on your horizon for discussion. Its
nebulous generality is not an invitation to discuss, it is a prelude
to a projected negative assertion made in terms of frustration.

If you are not hindered, you could have been more explicit. This
should be quite apparent.

73's
Richard Clark, KB7QHC

1503. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 01:38:17 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433de88a$0$32196$39cecf19@news.twtelecom.net>
Source record: 69650
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:

> The question?
>
> "What is 6 times 7?"
>

The question, quoted from the book, is "What do you get when you
multiply six by nine?". And the answer is still 42. Which is obvious.

tom
K0TAR

1504. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 01:53:38 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <C_l%e.1487$lc1.477@newssvr21.news.prodigy.com>
Source record: 69652

More likely,its, "IF it works, its a Miracle" :>) NN7K

Larry Gauthier (K8UT) wrote:
> Isn't their marketing slogan: "If it works good, it's a Miracle"? ;-)
>
>

1505. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 01:53:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433dec37$0$32199$39cecf19@news.twtelecom.net>
Source record: 69651
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

> On Sat, 01 Oct 2005 00:30:04 GMT, "Pat Stevens"
> <patstevens196@rochester.rr.com> wrote:
>
>
>> Your own stupidity is hindering you. Take it to e-mail, moron.
>
> Nice vocabulary. Need help using your newsreader?
>
>
> -- msosborn at msosborn dot com

Well, he could have it wrong, it may not be stupidity, but it certainly
is superstition.

tom
K0TAR

1506. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 02:00:45 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433dedcd$0$32199$39cecf19@news.twtelecom.net>
Source record: 69653
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>Any question is certainly not on your horizon for discussion. Its
>>nebulous generality is not an invitation to discuss, it is a prelude
>>to a projected negative assertion made in terms of frustration.
>>
>>If you are not hindered, you could have been more explicit. This
>>should be quite apparent.
>
>
> See ya!
>
>
> -- msosborn at msosborn dot com

Well, his BS finally ran out.

tom
K0TAR

1507. Re: Winding details for antenna choke ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 02:07:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhkr0t$28k$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69654

For design of solenoid chokes wound with coax cable, download program
SELFRES3 from website below.
--
....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

1508. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 02:25:42 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2a0c3$433df3d6$97d558d8$24437@ALLTEL.NET>
Source record: 69655

That was from the amusing play, "The night Kavorkian failed to show up"

"Tom Ring" <news0002@taring.org> wrote in message
news:433dd74e$0$32205$39cecf19@news.twtelecom.net...
.
>
> "I'll just go out back and shoot myself". Name the famous BBC Radio
> Play that's from.
>
> tom
> K0TAR

1509. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 02:31:26 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <2ym%e.16419$Xl2.3609@twister.nyroc.rr.com>
Source record: 69656
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Not as much as you need to figure out what a ham radio is what vhf-uhf
is about.

<Matt Osborn> wrote in message
news:oaqrj15639dvdmo7mlvkesl9eiqotmvtk1@4ax.com...
>
> Nice vocabulary. Need help using your newsreader?
>
>
> -- msosborn at msosborn dot com

1510. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 02:36:39 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11jrte940qbbf67@corp.supernews.com>
Source record: 69657

I second what Irv (VE6BP) has suggested. The modeling that I have done of small loops (just plain loops, no magnetic materials involved) placed horizontally (above earth) suggest the same pattern in all directions with a significant dip towards the zenith - just what one's receiver likes in order to receive signals from far away.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:433D7754.F019C9B2@shaw.ca...
> Lee wrote:
> >
> > "Irv Finkleman" <finkirv@shaw.ca> wrote in message
> > news:433D46F0.D0533E2B@shaw.ca...
> > > Lee wrote:
> > > >
> > > > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > > > news:dhjcr3$75s$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> > > > > ==============================
> > > > > There's almost certainly nothing the matter with it.
> > > > >
> > > > > You can't expect a small QRP magloop to work as well as a 1/2-wave
> > > > > vertical with 100 watts.
> > > > >
> > > > > What makes you think it is not working as well as it ought to?
What
> > > > > have you compared it with?
> > > > > ----
> > > > > Reg, G4FGQ
> > > > >
> > > > Hello Reg..
> > > > Took your advice and built a magloop......
> > > > I`m comparing the magloop to 5watts on a half-size sloping G5RV and
i
> > find
> > > > the magloop equivalent to the G5RV on R/X.whilst the magloop is
inside
> > the
> > > > house!!!..
> > > > I have a friend about a mile away that i chat to who hears me on the
> > G5RV at
> > > > s30+ ......but, not at all on the magloop!!!!......

> > > > Why am i not being heard on the magloop???? :-/.
> > H-E-L-P........
> > > >
> > > > Lee.....G6ZSG.....
> > >
> > > You may have the null pointed at him.
> > Tried that just and got 5x8 with magloop in the house!!!! and only
> > 5watts....
> >
> > Lee....G6ZSG..
> >
> Figured as much. You might want to try the loop in a horizontal
configuration
> for omnidirectional work. You'll probably find that you can operate it
horizontally
> just a few inches above the ground although I recommend a couple feet.
>
> Irv VE6BP
>
>
> --
> ---------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ---------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

1511. Re: Winding details for antenna choke ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 02:43:24 UTC
From: David <groups@orbitcoms.com>
Message-ID: <gJm%e.3900$U51.2554@news-server.bigpond.net.au>
Source record: 69658

Thank you.

Reg Edwards wrote:
> For design of solenoid chokes wound with coax cable, download program
> SELFRES3 from website below.
> --
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

1512. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 02:51:35 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433df9b7$0$32199$39cecf19@news.twtelecom.net>
Source record: 69659

Fred W4JLE wrote:

> That was from the amusing play, "The night Kavorkian failed to show up"
>
> "Tom Ring" <news0002@taring.org> wrote in message
> news:433dd74e$0$32205$39cecf19@news.twtelecom.net...
> .
>
>>"I'll just go out back and shoot myself". Name the famous BBC Radio
>>Play that's from.
>>
>>tom
>>K0TAR
>
>
>

Sorry.

tom
K0TAR

1513. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 03:03:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <suurj1h3ujba786avkcdjt7phgda1k2be3@4ax.com>
Source record: 69660
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 30 Sep 2005 20:38:17 -0500, Tom Ring <news0002@taring.org>
wrote:
>The question, quoted from the book, is "What do you get when you
>multiply six by nine?". And the answer is still 42. Which is obvious.

Hi Tom,

Well, ya got me there. Trying too hard to lighten up Matt's bleak
outlook on life when I missed the curve there. ;-)

73's
Richard Clark, KB7QHC

1514. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 03:08:11 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433dfd9b$0$32193$39cecf19@news.twtelecom.net>
Source record: 69661
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:

> On Fri, 30 Sep 2005 20:38:17 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>>The question, quoted from the book, is "What do you get when you
>>multiply six by nine?". And the answer is still 42. Which is obvious.
>
>
> Hi Tom,
>
> Well, ya got me there. Trying too hard to lighten up Matt's bleak
> outlook on life when I missed the curve there. ;-)
>
> 73's
> Richard Clark, KB7QHC

Well, I'll Ill give you a hint, it's a math thing.

tom
K0TAR

1515. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 03:10:55 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433dfe3f$0$32193$39cecf19@news.twtelecom.net>
Source record: 69662
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:

> Well, I'll Ill give you a hint, it's a math thing.
>
> tom
> K0TAR

Sorry, I stuttutterered there.

tom
K0TAR

1516. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 03:15:45 UTC
From: Charlie <charlie@play.com>
Message-ID: <11jrvr7loc9ped3@news.supernews.com>
Source record: 69663

More likely..
"It Tastes Better Than Mayonnaise"

--

Charlie

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:C_l%e.1487$lc1.477@newssvr21.news.prodigy.com...
> More likely,its, "IF it works, its a Miracle" :>) NN7K
>
> Larry Gauthier (K8UT) wrote:
>> Isn't their marketing slogan: "If it works good, it's a Miracle"? ;-)
>>

1517. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 03:51:39 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433e07cb$0$32196$39cecf19@news.twtelecom.net>
Source record: 69664
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

>>>-- msosborn at msosborn dot com
>>
>>Well, he could have it wrong, it may not be stupidity, but it certainly
>>is superstition.
>
>
> I'm afraid I have no idea of what your point is.
>
>
> -- msosborn at msosborn dot com

Of course not, you aren't capable of it. That's the part that
superstition affects.

tom
K0TAR

1518. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 03:52:59 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433e081b$0$32196$39cecf19@news.twtelecom.net>
Source record: 69665
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:

> Patience is too valuable to waste.
>
>
> -- msosborn at msosborn dot com

Yet another null statement.

tom
K0TAR

1519. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 05:49:44 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <Yrp%e.24651$VI6.3177@fe1.news.blueyonder.co.uk>
Source record: 69666

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11jrte940qbbf67@corp.supernews.com...
> I second what Irv (VE6BP) has suggested. The modeling that I have done of
> small loops (just plain loops, no magnetic materials involved) placed
> horizontally (above earth) suggest the same pattern in all directions with
a
> significant dip towards the zenith - just what one's receiver likes in
order
> to receive signals from far away.
>
> 73 Mac N8TT
>
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
> "Irv Finkleman" <finkirv@shaw.ca> wrote in message
> news:433D7754.F019C9B2@shaw.ca...
> > Lee wrote:
<

I`ll try that Mac and see if it is worth the effort of a much larger
project.... like 10ft square multiband!!.

Thanks Mac & Irv..

Lee....G6ZSG......

1520. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 05:55:55 UTC
From: dplatt@radagast.org
Message-ID: <11js97bgtcb8u68@corp.supernews.com>
Source record: 69667

In article <433df9b7$0$32199$39cecf19@news.twtelecom.net>,
Tom Ring <news0002@taring.org> wrote:

>"I'll just go out back and shoot myself". Name the famous BBC Radio
>Play that's from.

"Hitch-hiker's Guide to the Galaxy", I believe. The genetically-
engineered, tasty, and most obliging foodbeast.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1521. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 06:00:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aj6sj19niuv0rgmj65pcnsr6td8vbp47lq@4ax.com>
Source record: 69668
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 30 Sep 2005 22:43:41 -0500, Matt Osborn <> wrote:

>Patience is too valuable to waste.

Art of the classics speaks to the soul; without it, this muttering of
philosophy simply stirs the dust in the mind.
>> I saw, moreover, in my dream, that the Interpreter took him by the hand,
>>and had him into a little room, where sat two little children, each one in his chair.
>>The name of the eldest was Passion, and the name of the other Patience.
>>Passion seemed to be much discontented; but Patience was very quiet.
>>Then Christian asked, What is the reason of the discontent of Passion?
>>The Interpreter answered, The Governor of them would have him stay for
>>his best things till the beginning of the next year; but he will have all now:
>>but Patience is willing to wait.

>> Then I saw that one came to Passion, and brought him a bag of treasure,
>>and poured it down at his feet, the which he took up and rejoiced therein,
>>and withal laughed Patience to scorn. But I beheld but a while, and he had
>>lavished all away, and had nothing left him but rags.

>> Then said Christian to the Interpreter, Expound this matter more fully to me.

>> So he said, These two lads are figures:
>>Passion, of the men of this world; and Patience, of the men of that which is to come;
>>for as here thou seest, Passion will have all now this year, that is to say, in this
world;
>>so are the men of this world, they must have all their good things now,
>>they cannot stay till next year, that is until the next world, for their portion of good.
>>That proverb, `A bird in the hand is worth two in the bush', is of more authority with
them
>>than are all the Divine testimonies of the good of the world to come.
>>But as thou sawest that he had quickly lavished all away, and had presently left him
>>nothing but rags; so will it be with all such men at the end of this world.

>> Then said Christian, Now I see that Patience has the best wisdom,
>>and that upon many accounts. First, because he stays for the best things.
>>Second, and also because he will have the glory of his, when the other has nothing but
rags.

>> Nay, you may add another, to wit, the glory of the next world
>>will never wear out; but these are suddenly gone. Therefore Passion had
>>not so much reason to laugh at Patience, because he had his good things first,
>>as Patience will have to laugh at Passion, because he had his best things last;
>>for first must give place to last, because last must have his time to come;

>>but last gives place to nothing; for there is not another to succeed.
>>He, therefore, that hath his portion first, must needs have a time to spend it;
>>but he that hath his portion last, must have it lastingly; therefore it is said of Dives,
>>"Thou in thy life-time receivedst thy good things, and likewise Lazarus evil things;
>>but now he is comforted, and thou art tormented." [Luke 16:25]

The parable is thus of the passion of the administration laughing at
the world as they glory over it. The plight of New Orleans reveals
their moral poverty in that all towns are New Orleans in their eyes.

73's
Richard Clark, KB7QHC

1522. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 06:39:19 UTC
From: nm5k@wt.net
Message-ID: <1128148759.890588.276840@z14g2000cwz.googlegroups.com>
Source record: 69669

there actually is a clear air current that flows all the time, you can
actually draw power from it with a relatively small 'antenna'. in
fact,
many years ago one of the 'popular' magazines published plans for a
motor
that ran off the clear air electric field, you just had to be sure to
>disconnect it before a thunderstorm came through.

Has nothing to do with cosmic radiation, black holes, etc..
If that were the case, you would have near constant lightning,
in all kinds of weather. I have no doubt that lightning effects
the ultra high altitudes with the jet and sprites, etc. But I think
it starts from the strike itself, and effects upwards as some kind
of large recharge/discharge mechanism. But thats just my guess.
I really haven't looked into that much. How this guy thinks cosmic
radiation is the key, I dunno... Hummm... Is he a doktor with letters

after his name? He's not working off a government grant is he?
Inquiring minds wanna know...
MK

1523. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 07:14:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhld10$g2k$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69670

Lee,

Using the loop indoors, at ground-floor level, at 20MHz, on a groundwave path, is not inconsistent with what you get. Get it high-up, outdoors, and it will make a big difference.

The capacitor is made from a length of coax. I wonder how long it is and how it is located relative to the loop? Wherever it is, being unbalanced coax it will unbalance the loop.

But what worries me, the very thin coaxial inner conductor is in series with the main loop conductor. It may have a loss resistance several times greater than the large diameter main loop. You could be losing a lot of decibels.

Reg, G4FGQ.

1524. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 07:33:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b8dsj1dgddmq3sqrmvo0io59t1c02n6eg3@4ax.com>
Source record: 69671

On Fri, 30 Sep 2005 11:36:57 -0000, "Dave" <noone@nowhere.com> wrote:

>there actually is a clear air current that flows all the time, you can
>actually draw power from it with a relatively small 'antenna'. in fact,
>many years ago one of the 'popular' magazines published plans for a motor
>that ran off the clear air electric field, you just had to be sure to
>disconnect it before a thunderstorm came through.

Hi Dave,

I saw something like this suggested in Popular Electronics in the 60s, but living in Colorado where the nearby strikes were like bullwhip snaps, I chose to pass this by.

Some years later, when I was called in to do another design for the Black Box upgrade for newer 747s, I ran across an article of interest.

This came from The American Institute of Aeronautics and Astronautics, November 1972 and was titled "Introducing Electrostatic Autopilots," Maynard L. Hill, John Hopkins APL.

The point of the article was to build a servo loop to control the level flying of model airplanes automatically. The sensors located at the wingtips measured the potential gradient that exists from earth to sky. When the wingtips banked, the gradient would present a counter potential to the control surfaces to force the airplane back into level flight. It was quite effective for an otherwise difficult task that to that point proved to be intractable.

Aside from the application, the science presented (and certainly proved by example) described this current you speak of as being part of a world wide current circulation by which lightning strikes were the return path (and seriously far greater in amplitude by the accumulation of charge).

"The air-Earth conduction current typically measures about
2.5ï¿½10^-12 Ampere/Mï¿½ ...
"... Relatively few persons realize that when a person
stands in an open field on a clear day, his head has a
potential approximately 300V more positive than his feet..."

By my reckoning from notes I made back then, the total current flow is 1800A over the area of the entire earth to build a potential of 350000V at an altitude of 50KM (the gradient is quite shifted at roughly above 2500 meters). This upward current flow is borne by dust and water vapor on thermal currents of air. This data was taken from measurements performed in 1953.

"we can readily compute that a continuous 630MW flow of
direct current power maintains this potential difference.
If this DC generator suddenly failed, the capacitor would
discharge completely in about 1/2 hour."

73's
Richard Clark, KB7QHC

1525. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 08:00:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhlfncngh1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69672

> But what worries me, the very thin coaxial inner conductor is in
> series with the main loop conductor. It may have a loss resistance
> several times greater than the large diameter main loop. You could
> be losing a lot of decibels.

==========
Lee,

If you cut the length of coax into, say, 7 equal lengths and connected
them in parallel you will have a capacitor of the same value but with
a loss resistance only 1/7th of the single length.

More compact too. 6 fit very nicely round 1. Bundle them up in a
plastic bag to keep off the rain.

Reg, G4FGQ.

1526. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 08:31:23 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <vPr%e.35509$iW5.8773@fe3.news.blueyonder.co.uk>
Source record: 69673

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhld10$g2k$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Lee,
>
> Using the loop indoors, at ground-floor level, at 20MHz, on a
> groundwave path, is not inconsistent with what you get. Get it
> high-up, outdoors, and it will make a big difference.

Next, after testing 2` above ground.......

> The capacitor is made from a length of coax. I wonder how long it is
> and how it is located relative to the loop? Wherever it is, being
> unbalanced coax it will unbalance the loop.

Isn`t a variable butterfly vane capacitor unbalanced also as is the co-axial
trimpot and the compression piston cap?..they are all used on magloops Reg.

> But what worries me, the very thin coaxial inner conductor is in
> series with the main loop conductor. It may have a loss resistance
> several times greater than the large diameter main loop. You could be
> losing a lot of decibels.

I`m listening

Lee....G6ZSG.....

1527. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 08:39:03 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <HWr%e.35771$iW5.3315@fe3.news.blueyonder.co.uk>
Source record: 69674

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhlfncngh1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
<

> Lee,
>
> If you cut the length of coax into, say, 7 equal lengths and connected
> them in parallel you will have a capacitor of the same value but with
> a loss resistance only 1/7th of the single length.

RG8 / UR213 would be more convenient i should think Reg if i were running a
bit more QRO......

> More compact too. 6 fit very nicely round 1. Bundle them up in a
> plastic bag to keep off the rain.

I`ll try that Reg..... i have an old QRP atu with air spaced variables
around 350pf with slow motion drive i could use on a more ambitious project
a little later....good for 100watts or so SSB...Yes?

Lee...G6ZSG.......

1528. Re: UWB Antennas, why these shapes?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 08:56:11 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <kas%e.11419$GK2.2040@lakeread07>
Source record: 69675

Reg Edwards wrote:

> Richard,
>
> Everybody says that thickening the antenna conductor increases the
> bandwidth. And indeed it does.
>
> But nobody ever says by how much the bandwidth is increased.
>
> I think this is because bandwidth is increased by such a small
> proportion that it's not worth the trouble and expense of erecting
> another antenna. Otherwise everybody would have giant, unsightly,
> neighbor-offending, cages in their back yards. But they don't.

There is a listed formula for determining BW given wavelength/wire diameter ratio. There is also a description of the antenna's efficiency given that sam ration (btw, when said ratio starts to approach 1:1, the antenna ceases to be efficient at all and and other equally wierd effects begin to happen).

>
> I have a program, DIPCAGE2, which calculates the increase in bandwith
> due to increase in dipole diameter which demonstrates this
> disappointing point.

a program cannot begin to handle all the variables involved in how an antenna functions IRL. it can approximate those functions only under extremely controlled conditions (which do not happen in real life either). all a program is good for is getting you close and then you adjust the antenna physically to tune it.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

1529. Re: Lightning Question [OOPS]

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 09:11:05 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433e12e5@fidonet.org>
Source record: 69726

"Steve Nosko" bravely wrote to "All" (30 Sep 05 17:14:58)
--- on the heady topic of "Re: Lightning Question [OOPS]"

SN> From: "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com>
SN> Xref: core-easynews rec.radio.amateur.antenna:217790

SN> I got distracted and hit send B4 completing an edit. I don't see any
SN> relavance of the pulses and frequency part of your post. When hairs
SN> stand up on your arm the small movement tickles. Touch them with
SN> something. I see no pulses to talk about.

Have you ever seen an image captured with Kirlian Photography?
This is a process where corona discharge is photographed onto a film.
There was a lot of mumbo jumbo around this effect but it is quite
interesting as it gives a great insight into how charges arrange
themselves around an object and their behaviour, more so if observed
using a live action camera instead of a still. The corona discharge is
a dynamic event not simply DC. Just observe any high voltage
discharge, it never takes exactly the same path. Even a rectifier
diode never has exactly the same forward voltage when a constant
AC sinewave current is applied. No one is quite sure why either.

Anyway, the gamma ray burst theory is not mine but that of some head
of department professor big wig guy. So why should I disbelieve a phd
who actually writes this hypothesis up in a published paper? By
comparison, those denigrating the theory without much basis don't
impress a lot. They should "stop making their political allegiances
take a priority over expertise". And that is my new catch phrase for
the month.

Another guy (in Norway?) also claims that cosmic rays are responsible
for creating clouds and that the amount of cloud cover is linked to
the solar cycle. Apparently when the Sun cycle is in a minimum period
the solar wind lessens and allows more intergalactic cosmic rays to
reach the Earth. These cosmic rays promote nucleation of water vapour
in the atmosphere, thus creating more cloud cover and the Earth cools
as more sunlight is reflected. In a time of maximum the solar wind
increases and less cosmic rays reach the Earth, resulting in less
cloud cover and the Earth heats up more from the increased sunlight
reaching the ground.

A*s*i*m*o*v

... Couldn't fix your brakes, so I made the horn louder!

1530. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 09:11:07 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_433e12e6@fidonet.org>
Source record: 69727

"Steve Nosko" bravely wrote to "All" (30 Sep 05 16:59:44)
--- on the heady topic of "Re: Lightning Question"

SN> From: "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com>
SN> Xref: core-easynews rec.radio.amateur.antenna:217792

SN> "...alternative to the lightning rod. ..."
SN> Their purpose it to bleed off the charge so it can't develop to the
SN> point where the leaders can start and prevent the strike. You need to
SN> get the charge out of there, not let it continue to build until it
SN> finds another path it can breach. Charge concentrates at a point and
SN> low level ionization bleeds off the charge "safely".

SN> You put large round balls on static generators so that you DO allow
SN> the charge to build up and not bleed off.

So then why does the lightning prefer to hit the rod? I've seen
St-Elmo's fire on a metal chimney, quite interesting.

A*s*i*m*o*v

... Birthdays are good for you - the more you have the longer you live.

1531. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 11:14:52 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <Mcu%e.16434$Xl2.1264@twister.nyroc.rr.com>
Source record: 69728
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

I doubt that you know at least as much as I do, because you would realize
that your posts are completely off-topic for all of the groups that you
insist on posting your religion/atheist arguments.
It may have kept to a single thread, but I would disagree with you about it
swamping the newsgroups, since it your posts are almost two to three times
the on-topic posts for these newsgroups.
I don't understand the point that you didn't start the thread, but that you
are still posting to it. If someone else starts a fight and you just keep
hitting back, does that mean you aren't fighting? Now, I understand your
ignorance and why your arguments are all skewed.
Take your discussion to e-mail. This thread started on-topic, but people
like you, who can't follow rules, have denigrated it to an off-topic
discussion.

<Matt Osborn> wrote in message
news:021sj1hb84shphia0dq78pl55r0q65sntl@4ax.com...
>
> I suppose I know at least as much as you do Pat, about hf, vhf & uhf.
> I can also identify a thread and I know how to avoid one.
>
> Look, I know this is off topic and that it is an imposition on others.
> So far, though, it has kept to a single thread and hasn't swamped the
> group. I didn't start the thread, but I did enjoy it (with a few
> exceptions).
>
>
> -- msosborn at msosborn dot com

1532. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 11:17:59 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <Hfu%e.16435$Xl2.14286@twister.nyroc.rr.com>
Source record: 69729
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Along with a lot of other things. Too bad, your common sense is
lacking.

<Matt Osborn> wrote in message
news:7d1sj1ljfil7mk2a45g84havhdhtn0t32b@4ax.com...
>
> Patience is too valuable to waste.
>
>
> -- msosborn at msosborn dot com

1533. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 11:27:43 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ROydnfsHdLon76PeRVn-rQ@crocker.com>
Source record: 69730

"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message
news:MSGID_1=3a167=2f133.0_433e12e6@fidonet.org...
> "Steve Nosko" bravely wrote to "All" (30 Sep 05 16:59:44)
> --- on the heady topic of "Re: Lightning Question"
>
> SN> From: "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com>
> SN> Xref: core-easynews rec.radio.amateur.antenna:217792
>
> SN> "...alternative to the lightning rod. ..."
> SN> Their purpose it to bleed off the charge so it can't develop to the
> SN> point where the leaders can start and prevent the strike. You need to
> SN> get the charge out of there, not let it continue to build until it
> SN> finds another path it can breach. Charge concentrates at a point and
> SN> low level ionization bleeds off the charge "safely".
>
> SN> You put large round balls on static generators so that you DO allow
> SN> the charge to build up and not bleed off.
>
> So then why does the lightning prefer to hit the rod? I've seen
> St-Elmo's fire on a metal chimney, quite interesting.
>
lightning doesn't prefer to hit the rod. the rod reaches out to the stepped
leader before other more blunt or lower objects around it. in the most
common case a large channel of charge is stepping down from the cloud in
50-100m steps. this charge is normally negative and attracts positive
charge to the ground and objects under it. as the downward moving leader
gets closer to the ground the positive charges build up on objects until the
field is high enough to start upward moving streamers, this is the corona or
st. elmo's fire or what makes your hair stand on end. these streamers are
all attracted to the downward leader and the first one to reach it completes
the circuit and triggers what you see as the lightning stroke by providing
that final ionized path to the large pool of positive charge on the ground.
higher objects of course have a head start in reaching the leader, and
pointy objects have higher field gradients which let them start streamers
sooner, so high pointy objects end up with a better chance of triggering the
lightning to hit them.

1534. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 11:50:38 UTC
From: richardharrison@webtv.net
Message-ID: <13320-433E780E-161@storefull-3255.bay.webtv.net>
Source record: 69732

Asimov wrote:
"So then why does the lightning prefer to hit the rod?"

The rod is salient.

It`s the voltage gradient, which is not a uniform function of position or altirude, but is greater at sharp edges and points. These initiate ionozarion which precipitates lightning.

Best regards, Richard Harrison, KB5WZI

1535. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 12:02:36 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11jsujdpigc5dff@corp.supernews.com>
Source record: 69731

Dear Lee (G6ZSG):
Please do note that I was commenting on a receiving antenna, which is in need of an antenna mounted amplifier. The amplifier does not have hard-to-accomplish requirements for gain (20 db is good) or for input impedance. However, the amplifier does need to have very high IM performance and at least a high-pass filter to reject signals from the AM broadcast band.

Using a small, horizontal loop antenna as a transmitting antenna can be done. As you are finding out, coupling power into the loop is a challenge.

Good luck. 73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Lee" <lo012a4519@blueyonder.co.uk> wrote in message
news:Yrp%e.24651$VI6.3177@fe1.news.blueyonder.co.uk...
>
> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> news:11jrte940qbbf67@corp.supernews.com...
> > I second what Irv (VE6BP) has suggested. The modeling that I have done
of
> > small loops (just plain loops, no magnetic materials involved) placed
> > horizontally (above earth) suggest the same pattern in all directions
with
> a
> > significant dip towards the zenith - just what one's receiver likes in
> order
> > to receive signals from far away.
> >
> > 73 Mac N8TT
> >
> > --
> > J. Mc Laughlin; Michigan U.S.A.
> > Home: JCM@Power-Net.Net
> > "Irv Finkleman" <finkirv@shaw.ca> wrote in message
> > news:433D7754.F019C9B2@shaw.ca...
> > > Lee wrote:
> <
>
> I`ll try that Mac and see if it is worth the effort of a much larger
> project.... like 10ft square multiband!!.
>
> Thanks Mac & Irv..
>

> Lee....G6ZSG......
>
>

1536. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 13:15:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhm25gfst1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69733

The intermod performance of a receiving pre-amplifier is of no
consequence with a magloop.

The Q and selectivity (of the order of 1000) of the loop at the wanted
frequency easily reject local high-power MF broadcast frequencies.

On 160m, It's difficult to hear any stations only 3 kHz away from the
wanted frequency.

Reg.

1537. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 13:42:19 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7d3a5$433e926c$97d558d8$32550@ALLTEL.NET>
Source record: 69735
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

I bet you were a hall monitor in school...

It must be really boring to have a life that is only enriched by being a net
Nazi.

"Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
news:Mcu%e.16434$Xl2.1264@twister.nyroc.rr.com...
> I doubt that you know at least as much as I do, because you would realize
> that your posts are completely off-topic for all of the groups that you
> insist on posting your religion/atheist arguments.
> It may have kept to a single thread, but I would disagree with you about
it
> swamping the newsgroups, since it your posts are almost two to three times
> the on-topic posts for these newsgroups.
> I don't understand the point that you didn't start the thread, but that
you
> are still posting to it. If someone else starts a fight and you just keep
> hitting back, does that mean you aren't fighting? Now, I understand your
> ignorance and why your arguments are all skewed.
> Take your discussion to e-mail. This thread started on-topic, but people
> like you, who can't follow rules, have denigrated it to an off-topic
> discussion.

1538. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 13:42:40 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <knw%e.31331$VI6.836@fe1.news.blueyonder.co.uk>
Source record: 69734

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhm25gfst1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> The intermod performance of a receiving pre-amplifier is of no
> consequence with a magloop.
>
> The Q and selectivity (of the order of 1000) of the loop at the wanted
> frequency easily reject local high-power MF broadcast frequencies.
>
> On 160m, It's difficult to hear any stations only 3 kHz away from the
> wanted frequency.
> ----
> Reg.
>

Hi Reg....

I took my little 1 meter dia (10 ft circ) loop outside lunchtime and mounted it verticaly 2ft off the lawn and tested it, not expecting anything special and found that comparing it to the G5RV that there was no noticable difference between the two!!...my friend and i switched out our preamps and attenuator in.

I even turned the loop face on and edge on with a change of 2-3 S points.. So, needless to say, i am rather impressed with the performance and bandwidth of 2:1 SWR about 180k.....so much so that i am thinking seriously of going for a 20 ft circumference or larger for 80 and 40 metres....

Regards.

Lee....G6ZSG.....Well impressed!!! :-)

1539. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 15:21:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p8atj1d103ih9hsgduit9b03huha5c6kso@4ax.com>
Source record: 69736
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 01 Oct 2005 09:21:31 -0500, Matt Osborn <> wrote:

>The tale is of two sheep

Hi Matt,

Such problems.

73's
Richard Clark, KB7QHC

1540. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 15:46:56 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <Qby%e.16485$Xl2.3691@twister.nyroc.rr.com>
Source record: 69737
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

You probably call the police a nazi, too, when they pull you over for speeding. How come everyone believes that they don't need to follow the rules and that when they have it pointed out to them that they are outside the rules, they are being "picked on." Is that what you were in school?

"Fred W4JLE" <w4jle@w4jle.com> wrote in message news:7d3a5$433e926c$97d558d8$32550@ALLTEL.NET...
>I bet you were a hall monitor in school...
>
> It must be really boring to have a life that is only enriched by being a
> net
> Nazi.

1541. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 15:47:58 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <Ocy%e.16486$Xl2.7097@twister.nyroc.rr.com>
Source record: 69738
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Not enough sense to stay on-topic, maybe? What is with the argument that "I
didn't start it, but I sure the hell am going to finish it" attitude.

<Matt Osborn> wrote in message
news:4s6tj1lpqgae2070qihattvmnv8udk80vb@4ax.com...
> Thanks for joining the thread, Pat. It's infectious, isn't it?
>
> It would be helpful, at least to me, if you would describe what made
> you believe that I lack common sense? Perhaps, if you don't mind,
> you could expound a little on why you find common sense so valuable.

1542. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 16:12:47 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <dhmclt$f8s$1@ctb-nnrp2.saix.net>
Source record: 69740

>
> "Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message
> news:MSGID_1=3a167=2f133.0_430dd78a@fidonet.org...
> "Dave" bravely wrote to "All" (25 Aug 05 12:48:54)
> --- on the heady topic of "Re: Antenna improvements?"
>
>
> Physicists bounce radar off meteor trails in the upper atmosphere.
> This ionized air path reflects radio waves and can be detected.

You don't need to be a physicist to do it.
Many Hams (without degrees in physics) do it routinely, and what's more,
they don't merely "detect" the reflected radio waves, they actually achieve
useful communication with them.

73
Roger ZR3RC

1543. Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 16:16:14 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11jtdf05htl4j4a@corp.supernews.com>
Source record: 69739

Dear Reg (G4FGQ):

I note with interest that your note was written in the early afternoon.

The subject of my communication is: small (much smaller than a wavelength) - non-resonant (input impedance almost entirely inductive if one looks into a single opening in the loop) - horizontal - loop antenna (no substances with significant magnetic properties are in the vicinity of the loop antenna) - used to receive incident EM waves (which have both E and H components). SNRHL receiving antennas

I do not know the definition of a "magloop." Apparently, such a beastie comprises a resonant loop antenna.

No knowledgeable person would disagree that a single tuned network with a Q of 1000 is "narrow."

My interest in SNRHL receiving antennas comes from an interest in practical HF receiving antennas that are resistive to types of noise that appear only to be present at isolated, open, rural, otherwise-low-noise sites. The noise involved does not occur in urban areas or even rural sites with many trees.

Consider some of the excellent wine from Michigan this evening. This state, with a coastline almost the same length as that of the island of Great Britain, produces some excellent products for your enjoyment.

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhm25gfst1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> The intermod performance of a receiving pre-amplifier is of no
> consequence with a magloop.
>
> The Q and selectivity (of the order of 1000) of the loop at the wanted
> frequency easily reject local high-power MF broadcast frequencies.
>
> On 160m, It's difficult to hear any stations only 3 kHz away from the
> wanted frequency.
> ----
> Reg.
>
>

1544. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 16:37:56 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <433EBB7B.2E3FCB63@shaw.ca>
Source record: 69741

Dave wrote:
>
> "Buther Boy" <me@privacy.net> wrote in message
> news:3v0pj1h66mvi1c2unrrhc43t9eadjcuthj@4ax.com...
> > Hi, just ordered this awesome antenna. Anyone have any experiences
> > they'd like to share regarding its use?
>
> do you have to keep it refrigerated after opening??

No, but you'll find you won't want to keep it too long!

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1545. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 17:36:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhmhfgchb1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69742

Hello Lee,

Thanks for letting me know that by giving your magloop half-a-chance it performs according to expectations.

You have also demonstrated that the G5RV is not so hot as it is made out to be by salesmen and they who have never tried anything else.

No disrespect intended to G5RV himself, now deceased, who claimed only that it had a nice radiation pattern on 14.15 MHz which enabled him to work both Europe and North America from South America without having to climb ladders and change anything.

The magloop is by far the most efficient of all the antennas of roughly the same physical size. Both theoretically and in practice. It will do even better if you can get it well above ground in the vertical plane.

In the horizontal plane it works best at the higher heights, above surrounding obstructions like buildings. But in such surroundings there is room to erect full-size dipoles anyway, which will obviously do better still.

The main disadvantage on the 160 and 80 meter bands is the size, physical and capacitance-wise, of the variable tuning capacitor. You need a vaccuum capacitor of about 1000 pF max. By correct choice of loop dimensions and minimum capacitor setting the 40 meter band can also be covered. On 40 meters a small magloop can be highly efficient. Investigate using program MAGLOOP4.

Are you using the small internal coupling loop, about 1/5 diameter of main loop, to match to a 50-ohm feedline? This is the best and most simple way to go,

A different ratio small loop diameter is needed for other feedline impedances. The circuit behaves as if the turns ratio on a transformer is being changed.

Let us know how your experiments proceed.

Reg, G4FGQ.

1546. Re: Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 19:33:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhmoathip1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69743

"J. Mc Laughlin" wrote

> Dear Reg (G4FGQ):
>
> I note with interest that your note was written in the early
afternoon.

==========
My Dear J. Mc Laughlin,

Thank you for your interest in my early afternoon state of health. It is now 19.15 hours and I have just started on a bottle of Sierra Valley, Californian, Ruby Cabernet.
>
> The subject of my communication is: small (much smaller than a
> wavelength) - non-resonant (input impedance almost entirely
inductive if one
> looks into a single opening in the loop) - horizontal - loop antenna
(no
> substances with significant magnetic properties are in the vicinity
of the
> loop antenna) - used to receive incident EM waves (which have both E
and H
> components). SNRHL receiving antennas
>
> I do not know the definition of a "magloop." Apparently, such a
beastie
> comprises a resonant loop antenna.

==========
"Magloop" describes a small, single-turn, thick conductor, usually made from copper water pipe, circular, hexagonal or square in shape, loop. The two ends of the loop are connected together via a variable capacitor. The capacitor tunes the inductance of the loop to a resonant frequency at which everything happens.

The term "magnetic" arises because the near-field of a transmitting loop is mainly magnetic as distinct from the electric field. On receive it is more sensitive the magnetic field than the electric field.
==========

> No knowledgeable person would disagree that a single tuned
network with
> a Q of 1000 is "narrow."
>

> My interest in SNRHL receiving antennas comes from an interest
in
> practical HF receiving antennas that are resistive to types of noise
that
> appear only to be present at isolated, open, rural,
otherwise-low-noise
> sites. The noise involved does not occur in urban areas or even
rural sites
> with many trees.

==========
The noise in rural, open, oceanic areas is just the same sort as in built-up, residential, city and industrial areas. It is all random but there is just a lot less of it.

An antenna of any sort is just as sensitive to noise as it is to signals provided both noise and signals are coming from the same direction and elevation.
==========
>
> Consider some of the excellent wine from Michigan this evening.
This
> state, with a coastline almost the same length as that of the island
of
> Great Britain, produces some excellent products for your enjoyment.
>
==========
Everybody has heard of the State of Michigan with its capital city of Detroit. I have always thought of it as an industrial state similar to my own area of the city of Birmingham and the surrounding Black Country of England. It is the manufacuring areas which produce the REAL wealth of this World of ours. Not forgetting the farmers.

Never having had the opportunity to visit Michigan it has not occurred to me that the land could also grow grapes and produce wine. (Actually, we do produce respectable wine here in cool-climate industrial England. But not much of it.)

It is now 20.00 hrs and too late to go shopping at my local super-market. Nevertherless, at my next visit I shall keep my eyes open for "Michigan" on the wine bottle labels.

Reg, G4FGQ.

1547. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 20:03:47 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <MYSdnVGhLKE-dqPeRVn-gw@adelphia.com>
Source record: 69744
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Pat Stevens wrote:
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:nl1rj1daflg9m5dnnjb4ogiruu4ukrim2m@4ax.com...
>
>>On Fri, 30 Sep 2005 13:23:43 -0500, Matt Osborn <> wrote:
>>
>>>>>is adequate to the task
>>>
>>>Clearly, your need to embellish is not only unnecessary, it is also
>>>irrelevant.
>>
>>Hi Matt,
>>
>>Yet another prejudice I see. In the face of your wandering the
>>metaphysical landscape of Why? and finding nothing suitable to alight
>>on, the need for embellishment seems to be your patent. That you find
>>the discussion irrelevant is yet more evidence of the Nihilistic
>>propensity to skepticism and denial.
>>
>>73's
>>Richard Clark, KB7QHC

Ahh Pat, so you are engaging in the ever clever tactic of replying to posts without adding anything to them.

Which indicates to me that you are more interested in getting rid of postings that irritate you, as opposed to any real desire to keep the newsgroup on topic.

Your tactic is seen on the bands where people record and play back other hams transmissions. I guess it is a particularly unimaginative form of Jamming.

Are you a Jammer, Pat?

1548. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 20:06:08 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <MYSdnVChLKGtcaPeRVn-gw@adelphia.com>
Source record: 69745
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Ring wrote:
> Richard Clark wrote:
>
>> The question?
>> "What is 6 times 7?"
>>
>
> The question, quoted from the book, is "What do you get when you
> multiply six by nine?". And the answer is still 42. Which is obvious.

But pi is exactly 3 in some circles.......

While we are busy putting "intelligent design" into schools, I suggest
we start putting "faith based mathematics" in next.

- Mike KB3EIA -

1549. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 20:08:13 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <MYSdnVOhLKEzcaPeRVn-gw@adelphia.com>
Source record: 69746
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Matt Osborn wrote:
> On Sat, 01 Oct 2005 00:30:04 GMT, "Pat Stevens"
> <patstevens196@rochester.rr.com> wrote:
>
>
>> Your own stupidity is hindering you. Take it to e-mail, moron.
>>
>><Matt Osborn> wrote in message
>>news:d0krj158a9aifpk3s92eovrr0nupp0mo1u@4ax.com...
>>
>>>Simply avoiding the question? Your blindness hinders me not.
>>>
>>>
>>>-- msosborn at msosborn dot com
>
>
> Nice vocabulary. Need help using your newsreader?

Pat doesn't like us talking about this, Matt. Seems like everyone is
having a good time, and the posts are pretty civil. I guess some people
like to control others, eh?

- Mike KB3EIA -

1550. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 20:09:00 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <MYSdnVKhLKFBcaPeRVn-gw@adelphia.com>
Source record: 69747
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Pat Stevens wrote:
> Not as much as you need to figure out what a ham radio is what vhf-uhf
> is about.

Some people think it is about jamming....

> <Matt Osborn> wrote in message
> news:oaqrj15639dvdmo7mlvkesl9eiqotmvtk1@4ax.com...
>
>>Nice vocabulary. Need help using your newsreader?
>>
>>
>>-- msosborn at msosborn dot com
>
>
>

1551. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 20:54:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dhttj1d92o8qhv2m93njjuhvefdbg52tr1@4ax.com>
Source record: 69748
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 01 Oct 2005 16:06:08 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:
> But pi is exactly 3 in some circles.......
>
> While we are busy putting "intelligent design" into schools, I suggest
>we start putting "faith based mathematics" in next.

Hi Mike,

If I recall correctly, the forebears of the untelligent design crowd,
during the scopes monkey trial, attempted to mandate that pi was equal
to 22/7ths. However, I don't see where faith attaches to 22 and 7 was
always a cabalistic device of the middle ages.

Close enough for as many as 3 would be.

I would hate to drive on their 13/14/15 inch tires tho'. ;-)

73's
Richard Clark, KB7QHC

1552. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 20:57:15 UTC
From: LT <group@group.com>
Message-ID: <Xns96E28DF5645D2groupgroupcom@216.168.3.50>
Source record: 69749

Hi Lee,

I'm a little confused about the bandwidth that you're getting. Maybe it can be attributed to losses which widen the SWR bandwidth. That's not necessarily a bad thing. I have used an AEA IsoLoop antenna that is about the same size as your loop antenna but has a low loss butterfly capacitor for tuning 10-30 MHz. On 20 meters the bandwidth is only about 20 or 30KHz(can't remember exactly since I haven't used it for a couple of years). It works great if you park yourself on a frequency but it is a pain to use for hunt and pounce.

Besides the null using vertical polarization, is it possible that for your local friend you may have been cross-polarized. Usually direct wave cross-polarization is on the order 20db which accounts for the 2 to 3 S units of change from vertical to horizontal.

Have fun with your new toy!

73 LT

> Hi Reg....
>
> I took my little 1 meter dia (10 ft circ) loop outside lunchtime and
> mounted it verticaly 2ft off the lawn and tested it, not expecting
> anything special and found that comparing it to the G5RV that there
> was no noticable difference between the two!!...my friend and i
> switched out our preamps and attenuator in.
>
> I even turned the loop face on and edge on with a change of 2-3 S
> points.. So, needless to say, i am rather impressed with the
> performance and bandwidth of 2:1 SWR about 180k.....so much so that i
> am thinking seriously of going for a 20 ft circumference or larger for
> 80 and 40 metres....
>
> Regards.
>
> Lee....G6ZSG.....Well impressed!!! :-)
>
>
>

1553. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 21:01:01 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ntttj1to6mofbfp7q25gvu7ogbgcvmhrot@4ax.com>
Source record: 69750

On Sat, 01 Oct 2005 13:42:40 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:

>I took my little 1 meter dia (10 ft circ) loop outside lunchtime and
>mounted it verticaly 2ft off the lawn and tested it, not expecting anything

Did your "little loop" grow since your first post... it was 1m in
circumfrence in the beginning?

Owen
--

1554. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 22:53:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <8b50$433f1398$97d558d8$27686@ALLTEL.NET>
Source record: 69751
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Nah, I used to beat the crap out of wooses like you and take their lunch
money. Enjoyed watching them cry.

If I were standing in front of you, you would be peeing your pants and
hollering "Mommy". Your type is only brave when behind a teacher or a
keyboard.

Get a life or get educated enough to use your newsreader correctly so you
may avoid apoplexy...

"Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
news:Qby%e.16485$Xl2.3691@twister.nyroc.rr.com...
> You probably call the police a nazi, too, when they pull you over for
> speeding. How come everyone believes that they don't need to follow the
> rules and that when they have it pointed out to them that they are outside
> the rules, they are being "picked on." Is that what you were in school?
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:7d3a5$433e926c$97d558d8$32550@ALLTEL.NET...
> >I bet you were a hall monitor in school...
> >
> > It must be really boring to have a life that is only enriched by being a
> > net
> > Nazi.
>
>

1555. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 23:00:01 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e7e7a$433f1523$97d558d8$28783@ALLTEL.NET>
Source record: 69752
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard, if the same 3 were used to design the wheels as the tires, you would never know the difference. PI is really smart in that it knows about both Metric and Inches :>)

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:dhttj1d92o8qhv2m93njjuhvefdbg52tr1@4ax.com...
> On Sat, 01 Oct 2005 16:06:08 -0400, Mike Coslo
> <mremovethiscoslo@adelphia.net> wrote:
> > But pi is exactly 3 in some circles.......
> >
> > While we are busy putting "intelligent design" into schools, I suggest
> >we start putting "faith based mathematics" in next.
>
> Hi Mike,
>
> If I recall correctly, the forebears of the untelligent design crowd,
> during the scopes monkey trial, attempted to mandate that pi was equal
> to 22/7ths. However, I don't see where faith attaches to 22 and 7 was
> always a cabalistic device of the middle ages.
>
> Close enough for as many as 3 would be.
>
> I would hate to drive on their 13/14/15 inch tires tho'. ;-)
>
> 73's
> Richard Clark, KB7QHC

1556. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 23:04:39 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <bdba9$433f1639$97d558d8$29502@ALLTEL.NET>
Source record: 69753

What about a fractal magloop Reg? Should be even smaller. :>)

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhmhfgchb1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> The magloop is by far the most efficient of all the antennas of
> roughly the same physical size. Both theoretically and in practice. It
> will do even better if you can get it well above ground in the
> vertical plane.
>

1557. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 23:30:49 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <J_E%e.352405$5N3.204841@bgtnsc05-news.ops.worldnet.att.net>
Source record: 69754

I have a copy of an article that gives a good overview of the cosmic ray hypothesis. It appeared in the May 2005 issue of Physics Today.

The authors are:

Alexander V. Gurevich and Kirill P. Zybin.

Their affiliation is described as:

A.V. Gurevich is the leader and K. P. Zybin is a research scientist in the I. E. Tamm theoretical department at the P. N. Lebedev Physical Institute of the Russian Academy of Sciences in Moscow.

I can e-mail a PDF copy (about 250 kB) of the article to anyone who wants one. Send me a message by correcting the rather obvious munge in my e-mail address.

As I noted previously, I do not have any particular expertise or vested interest in this cosmic theory, but I do find it interesting.

73,
Gene
W4SZ

nm5k@wt.net wrote:
>
>
> Has nothing to do with cosmic radiation, black holes, etc..
> If that were the case, you would have near constant lightning,
> in all kinds of weather. I have no doubt that lightning effects
> the ultra high altitudes with the jet and sprites, etc. But I think
> it starts from the strike itself, and effects upwards as some kind
> of large recharge/discharge mechanism. But thats just my guess.
> I really haven't looked into that much. How this guy thinks cosmic
> radiation is the key, I dunno... Hummm... Is he a doktor with letters
>
> after his name? He's not working off a government grant is he?
> Inquiring minds wanna know...
> MK
>

1558. Re: Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-01 23:39:27 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <f97uj1tu93lddi7h5h147893oia9fncvf6@4ax.com>
Source record: 69755

On Sat, 1 Oct 2005 19:33:49 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>=====================================
>Everybody has heard of the State of Michigan with its capital city of
>Detroit. I have always thought of it as an industrial state similar to
>my own area of the city of Birmingham and the surrounding Black
>Country of England. It is the manufacuring areas which produce the
>REAL wealth of this World of ours. Not forgetting the farmers.

>Reg, G4FGQ.
>

Reg, I grew up in Michigan, and spend 6 mo a year here, the other 6 in Florida.
In all the time I've spent in Michigan I wasn't aware that Detroit is the
Capitol. When was it moved from Lansing? Perhaps Mac can help you out in this
dilemma you're creating.

Walt

1559. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 00:30:52 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <QMGdneQys7Sht6LeRVn-hg@adelphia.com>
Source record: 69756

Cecil Moore wrote:
> Michael Coslo wrote:
>
>> Cecil Moore wrote:
>>
>>> As used in EZNEC, it (TOA) is the angle at which the gain
>>> is maximum.
>>
>>
>> It isn't a very good term then. It makes it sound as if it is the
>> angle at which the RF "takes off" at, when in fact it is not.
>
>
> Well, it is the angle at which the peak of the RF takes off.
> If one understands what it means, it is a useful concept.

Indeed. But it is such a misleading term. It gets people to believe that an antenna which is very inefficient, yet have a low "takeoff angle" is somehow superior to an antenna that may have a higher TOA, but may have more overall "oomph" at the same angle as the lower TOA antenna.

>> And it seems that a lot of people get really hung up on that,
>> thinking that there is some kind of blob of RF that leaves the antenna
>> at X angle. Even when people "know" that isn't the case, we still see
>> them thinking that way.
>
>
> Like any other concept, the user needs to understand the
> definition. If the TOA of a ground plane antenna is 7 degrees,
> that bodes well for DX, not well for local stuff.

No argument there.

> For instance, the take-off-angle for a low dipole is 90
> degrees, i.e. straight up. Good for NVIS, terrible for DX.

I kinda disagree. Unless that antenna has a teardrop shape pattern, it might still not be too awful bad for DX. Of course it won't be as good as an antenna that has good output, with most of it at a lower angle.

Of course, I'm a bit of a dilletente, and could be making a fool of myself here! 8^)

- Mike KB3EIA -

1560. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 00:37:05 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <xo6dnXmaz4IstqLeRVn-rw@adelphia.com>
Source record: 69757
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:
> On Sat, 01 Oct 2005 16:06:08 -0400, Mike Coslo
> <mremovethiscoslo@adelphia.net> wrote:
>
>> But pi is exactly 3 in some circles.......
>>
>> While we are busy putting "intelligent design" into schools, I suggest
>>we start putting "faith based mathematics" in next.
>
>
> Hi Mike,
>
> If I recall correctly, the forebears of the untelligent design crowd,
> during the scopes monkey trial, attempted to mandate that pi was equal
> to 22/7ths. However, I don't see where faith attaches to 22 and 7 was
> always a cabalistic device of the middle ages.
>
> Close enough for as many as 3 would be.

With enough faith, who needs tires? Just pray, and after you starve to death, you reap your reward.....

Frankly, I think they are the modern day version of the sabot throwers.

> I would hate to drive on their 13/14/15 inch tires tho'. ;-)

Their Escalades are heavy enough to round off the out of round sections.. 8^)

- Mike KB3EIA -

1561. Re: Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 00:41:45 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11jub2qsovg9gae@corp.supernews.com>
Source record: 69758

Dear Reg (G4FGQ):
It is now likely to be past your bed time so this message may be
contemplated in the bright, clear morning.
I have inserted some items below.
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhmoathip1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> "J. Mc Laughlin" wrote
>
> > Dear Reg (G4FGQ):
> >
> > I note with interest that your note was written in the early
> afternoon.
>
> ==
> My Dear J. Mc Laughlin,
>
> Thank you for your interest in my early afternoon state of health. It
> is now 19.15 hours and I have just started on a bottle of Sierra
> Valley, Californian, Ruby Cabernet.

--- You are commended for your assistance of our unfortunate brethren in
California. A good Midwesterner gives thanks at frequent intervals not to
be in crammed into California or out East. It is appropriate to observe
that the French would have no good grapes were it not for the Californian
growers.

> >
> > The subject of my communication is: small (much smaller than a
> > wavelength) - non-resonant (input impedance almost entirely
> inductive if one
> > looks into a single opening in the loop) - horizontal - loop antenna
> (no
> > substances with significant magnetic properties are in the vicinity
> of the
> > loop antenna) - used to receive incident EM waves (which have both E
> and H
> > components). SNRHL receiving antennas
> >
> > I do not know the definition of a "magloop." Apparently, such a
> beastie

> > comprises a resonant loop antenna.
>
> ====================================
> "Magloop" describes a small, single-turn, thick conductor, usually
> made from copper water pipe, circular, hexagonal or square in shape,
> loop. The two ends of the loop are connected together via a variable
> capacitor. The capacitor tunes the inductance of the loop to a
> resonant frequency at which everything happens.
>
> The term "magnetic" arises because the near-field of a transmitting
> loop is mainly magnetic as distinct from the electric field. On
> receive it is more sensitive the magnetic field than the electric
> field.

--- I am obliged to you for providing a definition of "magloop." The critical element of the definition seems to be that a magloop is a loop that is resonated by a reactance.
--- I am puzzled by your observation with respect to the term "magnetic" in conjunction with a loop antenna (presumably a loop antenna, whether or not a magloop). You appear to be saying that a loop antenna is more sensitive to the H field than to the E field of an incident EM field.
--- Relative to you, I have only been dealing with antennas a short 50 years. However, in that time, I have only encountered antennas that extract a signal from an EM field where the ratio of E to H is well established. My graduate professor, who recently passed away and who wrote The Book on antennas, never mentioned antennas that inherently were sensitive to one component of the incident EM wave.
--- Perhaps what you were saying is that one can predict the polarization of an EM wave launched from a loop antenna from knowing its geometry and the observer's orientation with respect to the geometry. This is also true for a doublet and a number of other antennas.

> ====================================
>
> > No knowledgeable person would disagree that a single tuned
> network with
> > a Q of 1000 is "narrow."
> >
> > My interest in SNRHL receiving antennas comes from an interest
> in
> > practical HF receiving antennas that are resistive to types of noise
> that
> > appear only to be present at isolated, open, rural,
> otherwise-low-noise
> > sites. The noise involved does not occur in urban areas or even
> rural sites
> > with many trees.
>
> ====================================
> The noise in rural, open, oceanic areas is just the same sort as in
> built-up, residential, city and industrial areas. It is all random but

> there is just a lot less of it.

--- I do not have the verbal skill of Richard Clark, who could find an elegant way to say what needs to be said. Dear Reg, you are wrong. You are wrong because your long and extensive carrier has not placed you in the sites described. Had you spent time out in the sticks, bare of same, you would have encountered the discharging of charged particles into the antenna you were using (or discharging into nearby conductors) producing a prodigious amount of excess noise. The particles are sometimes dust particles, sometimes water droplets, and sometime snow. By far, the greatest limitation on the performance of an HF receiving site in rural, open country is the sudden appearance of this noise. Even at VHF, it is sometimes a limiting factor. State Police posts in Michigan have sometimes not been able to communicate with 100 watt mobiles that were less than 300 meters away because of this noise appearing in a snow storm. (Movement to much higher frequencies and other strategies have alleviated their problem.)
--- My experience does not extend to extensive receiving sites out to sea. They might, it they exist at all, not encounter the excess noise. It is also clear that high air humidity may serve to reduce the excess noise.
--- Please add to your vast reservoir of knowledge something new.

>
> An antenna of any sort is just as sensitive to noise as it is to
> signals provided both noise and signals are coming from the same
> direction and elevation.
> ====================================
> >
> > Consider some of the excellent wine from Michigan this evening.
> This
> > state, with a coastline almost the same length as that of the island
> of
> > Great Britain, produces some excellent products for your enjoyment.
> >
> ====================================
> Everybody has heard of the State of Michigan with its capital city of
> Detroit. I have always thought of it as an industrial state similar to
> my own area of the city of Birmingham and the surrounding Black
> Country of England. It is the manufacuring areas which produce the
> REAL wealth of this World of ours. Not forgetting the farmers.

--- Well said! Michigan has had the most productive industry in the world. It also has some of the most productive agricultural land - especially for being in the north. However, Michigan (and others) are going through a major change. The advent of fast, inexpensive communication and transportation have seen the movement of vast numbers of manufacturing jobs to areas where wages are low. Many square miles of factories have been pulled-down to bare ground. (Taxes are thus reduced - often next to impossible to sell the land because of unknown pollutants from 90 or more of industrial use.) Ascendant in Michigan are jobs that produce intellectual property, that are involved with higher education, and that are involved with medicine including research. The new worker is different.

--- While Detroit is still the largest city, the capital is in Lansing.
>
> Never having had the opportunity to visit Michigan it has not occurred
> to me that the land could also grow grapes and produce wine.
> (Actually, we do produce respectable wine here in cool-climate
> industrial England. But not much of it.)

---Michigan is almost surrounded by very large lakes that mollify the weather. The west coast of Michigan, in particular, has very productive fruit farming. It is quite possible that few of Michigan's grape products are exported. Thank you for considering another of our products for your evening repast.
>
> It is now 20.00 hrs and too late to go shopping at my local
> super-market. Nevertherless, at my next visit I shall keep my eyes
> open for "Michigan" on the wine bottle labels.
> ----
> Reg, G4FGQ.
>
>

1562. Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 00:59:22 UTC
From: Buther Boy <me@privacy.net>
Message-ID: <90cuj1pqh9pmiemvrl80tq6skp0vrpgg6d@4ax.com>
Source record: 69759

I'm looking at the MFJ-16010, and want to buy some random wire and do some antenna experimenting. Could someone please point me to a link(s) for random wire antennas?

Buther Boy

--
Remove the word Spam from my e-mail to contact me...
http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
~

1563. Re: Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 01:03:20 UTC
From: Buther Boy <me@privacy.net>
Message-ID: <kccuj1li5unviumk4vfve16k1va108thun@4ax.com>
Source record: 69760

On Sat, 01 Oct 2005 19:59:22 -0500, Buther Boy <me@privacy.net> wrote:

>I'm looking at the MFJ-16010, and want to buy some random wire and do
>some antenna experimenting. Could someone please point me to a
>link(s) for random wire antennas?
>
>Buther Boy

Also, as I am just getting back into the hobby, I need a refresher of
sorts. What do I need to buy besides the random wire and antenna
tuner. Are there any other supplies that are necessary (besides the
radio LOL)?

Thanks.

Buther Boy

--
Remove the word Spam from my e-mail to contact me...
http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
~

1564. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 01:07:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ivbuj1p8d2umfila7juej1ddig8retc7lq@4ax.com>
Source record: 69761

On Sat, 01 Oct 2005 20:30:52 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

> Indeed. But it is such a misleading term. It gets people to believe
>that an antenna which is very inefficient, yet have a low "takeoff
>angle" is somehow superior to an antenna that may have a higher TOA, but
>may have more overall "oomph" at the same angle as the lower TOA antenna.

Hi Mike,

You make a valid point, but it bucks the trend of braggin' rights.

For instance, one of the loss leaders in fractal design also has
better launch characteristics at low angles because it uses ground as
a director (and not simply straight up). Consider:
http://www.qsl.net/kb7qhc/antenna/fractal/n1ir/k2/index.htm

This page contains the design ready to download - no threat of suit in
over 4 years - and it was no threat before then either. Also included
is my own non-fractal (at least in this iteration :-) version. It
also performs just as well, if not better (hard to say that without
biting my tongue however).

73's
Richard Clark, KB7QHC

p.s. qsl.net served up my page so fast, I thought I hit the cache! My
pages are so heavily laden with data, they are not simple downloads.

1565. Re: Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 01:13:25 UTC
From: mensch90249@yahoo.com
Message-ID: <mmcuj11ht63abfjmuqi4b9tqk83565gmpi@4ax.com>
Source record: 69762

On Sat, 01 Oct 2005 20:03:20 -0500, Buther Boy <me@privacy.net> wrote:

>On Sat, 01 Oct 2005 19:59:22 -0500, Buther Boy <me@privacy.net> wrote:
>
>>I'm looking at the MFJ-16010, and want to buy some random wire and do
>>some antenna experimenting. Could someone please point me to a
>>link(s) for random wire antennas?
>>
>>Buther Boy
>
>Also, as I am just getting back into the hobby, I need a refresher of
>sorts. What do I need to buy besides the random wire and antenna
>tuner. Are there any other supplies that are necessary (besides the
>radio LOL)?
>
>Thanks.
>
>Buther Boy

My recommendation is to hold off on the MFJ 'tuner' and first put up the antenna and see how it plays. As to where to buy; Lowe's, Home Depot or whatever similar type place will be your best bet for the wire - suggest #12 or #14 stranded just as you would use to wire your house. Insulators can be made from wood, use some 3/4 square cut 3 - 5 inches long with a hole drilled in each end then seal it with several coats of varnish. For more info this article is highly recommended:
http://www.anarc.org/naswa/badx/antennas/low-noise_antenna.html

Good Luck,
Howard

1566. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 01:17:57 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433f3547$0$3760$39cecf19@news.twtelecom.net>
Source record: 69763

Roger Conroy wrote:

>>"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message
>>news:MSGID_1=3a167=2f133.0_430dd78a@fidonet.org...
>>"Dave" bravely wrote to "All" (25 Aug 05 12:48:54)
>>--- on the heady topic of "Re: Antenna improvements?"
>>
>>
>>Physicists bounce radar off meteor trails in the upper atmosphere.
>>This ionized air path reflects radio waves and can be detected.
>
>
> You don't need to be a physicist to do it.
> Many Hams (without degrees in physics) do it routinely, and what's more,
> they don't merely "detect" the reflected radio waves, they actually achieve
> useful communication with them.
>
> 73
> Roger ZR3RC
>
>

Meteor scatter is pretty common among us folks that get our butts out of
the HF ghetto upon occasion. That, plus the occasional second hop on E,
AuE, TE, or F (when in season) can provide a nice DX surprise.

tom
K0TAR

1567. Re: Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 01:30:52 UTC
From: Buther Boy <me@privacy.net>
Message-ID: <duduj1l7qea3n39ggank81hmp8o8squbbi@4ax.com>
Source record: 69764

Howard:

I read the article, and would really appreciate it if you would please simplify construction AND installation for me. Step by step, where applicable and if possible.

Many thanks in advance. :-)

Buther Boy

On Sat, 01 Oct 2005 18:13:25 -0700, mensch90249@yahoo.com wrote:

>On Sat, 01 Oct 2005 20:03:20 -0500, Buther Boy <me@privacy.net> wrote:
>
>>On Sat, 01 Oct 2005 19:59:22 -0500, Buther Boy <me@privacy.net> wrote:
>>
>>>I'm looking at the MFJ-16010, and want to buy some random wire and do
>>>some antenna experimenting. Could someone please point me to a
>>>link(s) for random wire antennas?
>>>
>>>Buther Boy
>>
>>Also, as I am just getting back into the hobby, I need a refresher of
>>sorts. What do I need to buy besides the random wire and antenna
>>tuner. Are there any other supplies that are necessary (besides the
>>radio LOL)?
>>
>>Thanks.
>>
>>Buther Boy
>
>My recommendation is to hold off on the MFJ 'tuner' and first put up
>the antenna and see how it plays. As to where to buy; Lowe's, Home
>Depot or whatever similar type place will be your best bet for the
>wire - suggest #12 or #14 stranded just as you would use to wire your
>house. Insulators can be made from wood, use some 3/4 square cut 3 -
>5 inches long with a hole drilled in each end then seal it with
>several coats of varnish. For more info this article is highly
>recommended:
>http://www.anarc.org/naswa/badx/antennas/low-noise_antenna.html
>
>Good Luck,
>Howard

--
Remove the word Spam from my e-mail to contact me...

http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
~

1568. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 01:57:05 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <R7H%e.17307$Xl2.9545@twister.nyroc.rr.com>
Source record: 69765
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Ok. So, you were the bully who couldn't follow rules and believe that they never apply to you. So, now you are continuing that ideology in life as you "hide behind your keyboard."
Just goes to show, that some people never grow up and never change.

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:8b50$433f1398$97d558d8$27686@ALLTEL.NET...
> Nah, I used to beat the crap out of wooses like you and take their lunch
> money. Enjoyed watching them cry.
>
> If I were standing in front of you, you would be peeing your pants and
> hollering "Mommy". Your type is only brave when behind a teacher or a
> keyboard.
>
> Get a life or get educated enough to use your newsreader correctly so you
> may avoid apoplexy...
>
>
> "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> news:Qby%e.16485$Xl2.3691@twister.nyroc.rr.com...
>> You probably call the police a nazi, too, when they pull you over for
>> speeding. How come everyone believes that they don't need to follow the
>> rules and that when they have it pointed out to them that they are
>> outside
>> the rules, they are being "picked on." Is that what you were in school?
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:7d3a5$433e926c$97d558d8$32550@ALLTEL.NET...
>> >I bet you were a hall monitor in school...
>> >
>> > It must be really boring to have a life that is only enriched by being
>> > a
>> > net
>> > Nazi.
>>
>>
>
>

1569. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 01:59:35 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <baH%e.17309$XI2.13521@twister.nyroc.rr.com>
Source record: 69766
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

The controls have already been put in place. The idea of posting on-topic
is nothing new and most people find a way to keep themselves within those
boundaries.
I would imagine that the band plans for the amateur radio frequencies are
only a "guide" for you, too, and that you feel that you can transmit in any
mode and on any band that you feel fit. Right?

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:MYSdnVOhLKEzcaPeRVn-gw@adelphia.com...
> Matt Osborn wrote:
>> On Sat, 01 Oct 2005 00:30:04 GMT, "Pat Stevens"
>> <patstevens196@rochester.rr.com> wrote:
>>
>>
>>> Your own stupidity is hindering you. Take it to e-mail, moron.
>>>
>>><Matt Osborn> wrote in message
>>>news:d0krj158a9aifpk3s92eovrr0nupp0mo1u@4ax.com...
>>>
>>>>Simply avoiding the question? Your blindness hinders me not.
>>>>
>>>>
>>>>-- msosborn at msosborn dot com
>>
>>
>> Nice vocabulary. Need help using your newsreader?
>
> Pat doesn't like us talking about this, Matt. Seems like everyone is
> having a good time, and the posts are pretty civil. I guess some people
> like to control others, eh?
>
> - Mike KB3EIA -

1570. Has anyone any experiences with B&W's AP-10A 300 watt portable antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 02:09:27 UTC
From: Buther Boy <me@privacy.net>
Message-ID: <i6guj1lj5jhkvf2bd5ekde8gs326kttu95@4ax.com>
Source record: 69767

It is supposed to work on 2-40 meters, and is located on page 83 of
HRO's (hamradio.com) online PDF catalog.

Buther Boy

--
Remove the word Spam from my e-mail to contact me...
http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
~

1571. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 02:23:04 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <55b0c$433f44ba$97d558d8$25020@ALLTEL.NET>
Source record: 69768
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Do I look like I am "hiding" you twit!

I can see not only are you too stupid to use a newsreader, in addition you have no clue as to what can be gleaned from my call.

I love upsetting supercillious net Nazis. Makes my day.

"Pat Stevens" <patstevens196@rochester.rr.com> wrote in message news:R7H%e.17307$Xl2.9545@twister.nyroc.rr.com...
> Ok. So, you were the bully who couldn't follow rules and believe that they
> never apply to you. So, now you are continuing that ideology in life as you
> "hide behind your keyboard."

1572. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 02:31:28 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <433f4680$0$32207$39cecf19@news.twtelecom.net>
Source record: 69770
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Mike Coslo wrote:

> Tom Ring wrote:
>
>> Richard Clark wrote:
>>
>>> The question? "What is 6 times 7?"
>>>
>>
>> The question, quoted from the book, is "What do you get when you
>> multiply six by nine?". And the answer is still 42. Which is obvious.
>
>
> But pi is exactly 3 in some circles.......
>
> While we are busy putting "intelligent design" into schools, I
> suggest we start putting "faith based mathematics" in next.
>
> - Mike KB3EIA -

That wasn't my point. I thought some of you might figure out why. I am
quite disappointed to tell the truth.

6 x 9 = 42

It's not that tough, unless you can't think out of at least one box.
And those that figured it out fron "The Book", please do not comment.

tom
K0TAR

1573. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 02:37:19 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <zJH%e.5546$zQ3.1239@newsread1.news.pas.earthlink.net>
Source record: 69771
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

"Pat Stevens" <patstevens196@rochester.rr.com> wrote

> The controls have already been put in place. The idea of posting on-topic is
> nothing new and most people find a way to keep themselves within those
> boundaries.

Pat, usenet has no controls "put in place" (except on moderated newsgroups).
Each newsgroup is commissioned for a stated purpose and should generally be
followed, but sometimes the exhuberance of the moment causes us to stray off
into other areas. S#!t happens!

> I would imagine that the band plans for the amateur radio frequencies are only
> a "guide" for you, too, and that you feel that you can transmit in any mode
> and on any band that you feel fit. Right?

Bandplans are voluntary "guides", and generally make good sense. Times happen,
however, when there are good reasons to deviate from a particualr bandplan. So
long as the mode/band is FCC-legal and I have a personally-acceptable reason,
you're right --- I >>do<< feel that I can take a one-time exception to the
bandplan guidelines.

73, de Hans, K0HB

1574. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 02:50:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <IVH%e.1854$Y_5.79@newssvr11.news.prodigy.com>
Source record: 69769

Mike Coslo wrote:
> Indeed. But it is such a misleading term. It gets people to believe
> that an antenna which is very inefficient, yet have a low "takeoff
> angle" is somehow superior to an antenna that may have a higher TOA, but
> may have more overall "oomph" at the same angle as the lower TOA antenna.

I agree that it would have been nice if TOA had not been defined that
way. What I always attempt to do is state a gain to go with the TOA.
--
73, Cecil http://www.qsl.net/w5dxp

1575. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 03:32:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8ukuj19khb1hnngvu5hr7av68u6orm5q0e@4ax.com>
Source record: 69772
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sat, 01 Oct 2005 21:31:28 -0500, Tom Ring <news0002@taring.org>
wrote:

>That wasn't my point. I thought some of you might figure out why. I am
>quite disappointed to tell the truth.

Hi Tom,

"Don't Panic!" (I wish it could be written in the proper friendly
colors.)

It's simply working with Ape descendants that makes it harder to
explain.

Keep banging the rocks,
Richard Clark, KB7QHC

1576. Re: Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 03:55:22 UTC
From: mensch90249@yahoo.com
Message-ID: <4rluj11u09d3f8fnjsrdgq8f191gjc4sl8@4ax.com>
Source record: 69773

On Sat, 01 Oct 2005 20:30:52 -0500, Buther Boy <me@privacy.net> wrote:

>Howard:
>
>I read the article, and would really appreciate it if you would please
>simplify construction AND installation for me. Step by step, where
>applicable and if possible.
>
>Many thanks in advance. :-)
>
>Buther Boy

Buther,
I'm going to refer you to another website that has further explained
it and offers some illustrations - a picture is worth.......

Yes, it's a bit of laziness on my part and also an admission that I'm
not so hot at writing instructions. A few tips though:
1) Insulators; wire antenna attached to one hole, rope to the other -
the rope ties off to a support such as a mast, tree or house.
2) Lead in wire/transmission line; the wire can come directly to the
house but can pick up lots of noise, using coaxial cable (and a
suitable ground) can help reduce this - attach the center conductor to
the antenna and the shield (braided wire just under the plastic
jacket) to ground. if for listening only go ahead and use 75 ohm
cable as you would buy for your cable or satellite TV system.
3) Ground; a metal rod, typically 8 feet long, driven into the ground;
you can use the ground rod for your home electrical.
4) Keep your antenna as far from power lines as you can and
perpendicular to the power lines (if nearby) can help to reduce noise
vs parallel to them.

Here's the site promised: http://www.kc7nod.20m.com/random_wire.htm
Thanks to KC7NOD for taking the time to put this info on his site.
Also, don't forget that Google is your friend, type in 'random wire
antenna' and you will receive a wealth of other info.

Howard

1577. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 04:51:07 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <%GJ%e.37888$VI6.3384@fe1.news.blueyonder.co.uk>
Source record: 69774

"Owen Duffy" <owen@no.where> wrote in message
news:ntttj1to6mofbfp7q25gvu7ogbgcvmhrot@4ax.com...
> On Sat, 01 Oct 2005 13:42:40 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
> wrote:
>
>
> >I took my little 1 meter dia (10 ft circ) loop outside lunchtime and
> >mounted it verticaly 2ft off the lawn and tested it, not expecting
anything
>
> Did your "little loop" grow since your first post... it was 1m in
> circumfrence in the beginning?
>
> Owen
> --

You`re right Owen, i did state that didn`t i?...it was a typo of course,Heh
heh, it should read "10Foot circumference approx 1 meter dia".....

Thanks for telling me ......

Lee......G6ZSG........

1578. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 05:27:08 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <McK%e.38575$VI6.29675@fe1.news.blueyonder.co.uk>
Source record: 69775

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhmhfgchb1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Hello Lee,
>
> Thanks for letting me know that by giving your magloop half-a-chance
> it performs according to expectations.
>
> You have also demonstrated that the G5RV is not so hot as it is made
> out to be by salesmen and they who have never tried anything else.
<snip

Well, for me Reg, the halfsize G5RV was the only multi band antenna that i could squeeze into my garden...and the bandwidth of the loading coils for 80 is below my expectations..... that`s apart from the fact the loading coils knocked out 40...ho-hum time for a better antenna that isn`t an eyesore...and works better as a bonus.....
On VHF, beams and quadloops are no problem for 6m even, but HF is a whole new ballgame....had i the space, i would continue with quadloops for HF....but!!!......(shakes head).

> Are you using the small internal coupling loop, about 1/5 diameter of
> main loop, to match to a 50-ohm feedline? This is the best and most
> simple way to go,

No. i`m using a `gamma` match, if you can call it that....the matching loop comes next.
Wonder if a coaxial gamma match would work as i`m a staunch believer....(could put that principle to use for the capacitor tuning instead of a butterfly variable......)
Can`t get on with other types of loading, too fiddly!.

Regards....

Lee...G6ZSG.....

>
> A different ratio small loop diameter is needed for other feedline
> impedances. The circuit behaves as if the turns ratio on a
> transformer is being changed.
>
> Let us know how your experiments proceed.
> ----
> Reg, G4FGQ.
>
>

1579. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 05:47:46 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <6wK%e.38996$VI6.27383@fe1.news.blueyonder.co.uk>
Source record: 69576

"LT" <group@group.com> wrote in message
news:Xns96E28DF5645D2groupgroupcom@216.168.3.50...
> Hi Lee,
>
> I'm a little confused about the bandwidth that you're getting. Maybe it
> can be attributed to losses which widen the SWR bandwidth. That's not
> necessarily a bad thing. I have used an AEA IsoLoop antenna that is
> about the same size as your loop antenna but has a low loss butterfly
> capacitor for tuning 10-30 MHz. On 20 meters the bandwidth is only about
> 20 or 30KHz(can't remember exactly since I haven't used it for a couple
> of years). It works great if you park yourself on a frequency but it is
> a pain to use for hunt and pounce.

Yes, of course that should have read 2.5 : 1 SWR which is better than my
`loaded` half size G5RV on 80 at about 100kcs 2.5 : 1 SWR.......
>
> Besides the null using vertical polarization, is it possible that for
> your local friend you may have been cross-polarized. Usually direct wave
> cross-polarization is on the order 20db which accounts for the 2 to 3 S
> units of change from vertical to horizontal.

My `friend has a quarter wave vertical for 20 and the loop was physically
vertical ....also, my G5RV is sloping......
>
> Have fun with your new toy!

Thanks, i am...... ;-)

Lee....G6ZSG......

>
> 73 LT
<snip

1580. Re: Ladder Line and Interference from Metal Objects

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 05:52:50 UTC
From: Rockinghorse Winner <rockinghorse@anonymous.to>
Message-ID: <SAK%e.953$Aw.16170@typhoon.sonic.net>
Source record: 69577

Bob Miller <NOSPAM@neosoft.com> writes:

>On Wed, 28 Sep 2005 14:14:51 GMT, Cecil Moore <mycall@arrl.net> wrote:

>>Bob Miller wrote:
>>> The instruction book I got with my mfj 989c tuner has a section on
>>> ladder line lengths to gravitate to, or avoid, depending on band. It
>>> can be downloaded free from the mfj web site.
>>
>>Hopefully, the lengths to avoid are associated with specific
>>loads. Avoiding 1/4WL of ladder-line when feeding a 1/2WL
>>dipole may be good advice but 1/4WL of ladder-line is ideal
>>for feeding a one wavelength dipole.

>They're fairly specific about loads -- their manual is at
>http://www.mfjenterprises.com/products.php?prodid=MFJ-989C with pages
>7 and 8 talking about feedline lengths.

>bob
>k5qwg

Wow! I'll have a look a this ASAP.

--
R*Horse rwinner.blogspot.com

1581. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 06:38:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhnv92$au4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69578

> What about a fractal magloop Reg? Should be even smaller. :>)
>
This is a case of a fractal GUARANTEED to perform worse than the basic antenna in all respects.

That is unless a simple circle can be considered to be a zero-zero-order fractal.

1582. Tables of Er for various metal tubes ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 06:57:00 UTC
From: David <groups@orbitcoms.com>
Message-ID: <0xL%e.4865$U51.3234@news-server.bigpond.net.au>
Source record: 69579

Does anyone know where I can find Er tables for various type and diameter
of metal tubing so I can calculate Velocity coefficient Vp ?

Thanks in advance

Regards

David

1583. Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 07:16:01 UTC
From: David <groups@orbitcoms.com>
Message-ID: <ROL%e.4884$U51.366@news-server.bigpond.net.au>
Source record: 69580

I am a little confused with calculation of appropriate length of metal tubing used in a sleeve antenna design (the 1/4 wave section).

I understand that as RF travels through various mediums, Velocity of the wave slows down relative to Er of the material. So for coax the wavelength would be say 0.66 Lambda.

With the tubing over a coaxial cable though it seems there is Vp related to the dielectric formed between the sleeve and the outer sheath of the coax cable but also the Metal has an Er value.

1. Do you need to count for both these when calculate how the tube should be.
2. Is there relationship that needs to be considered between sleeve length and distance between sleeve and coax (ie. If the sleeve is made larger diameter does it effect the length required for the tube or is this still defined strictly by Er) also, Does the diameter of the tube effect the impedance ?

The specific example is RG174 Coax cable vertical dipole. The top radiating element is 1/4 long. At the bottom of this element is a length of RG174 Coax. 1/4 wave length of this coax has a 5/32 Brass sleeve. The sleeve is soldered to the RG174 coax at the point where the coax meets the top 1/4 wave element.
I need to understand what needs to be used to calculate the length of Brass tubing sleeve given the tubing diameter is 5/32 and besides air, the outer sheath of the RG174 is also between the sleeve and Earth braid. Is the diameter of the tubing critical (will it impact adversely on SWR looking into this antenna).

The final point would be if I place some ferrite rings across the coax below the sleeve, will this improve SWR ?

Thanks

Regards

David

1584. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 07:50:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3d3vj1lvc8tsg4mj90euuk9shdfrecp4mc@4ax.com>
Source record: 69581

On Sun, 02 Oct 2005 07:16:01 GMT, David <groups@orbitcoms.com> wrote:

>I need to understand what needs to be used to calculate the length of
>Brass tubing sleeve given the tubing diameter is 5/32 and besides air,
>the outer sheath of the RG174 is also between the sleeve and Earth
>braid. Is the diameter of the tubing critical (will it impact adversely
>on SWR looking into this antenna).

Hi David,

The Er of the metal is not something that comes quickly to mind
(especially this late at night). Besides, it sounds like what you are
describing is the radial component which would be fantastically small
(many decimal places, not simply tens of percent).

It also seems like your application is for UHF (you need to be more
specific). This makes such "calculations" little better than SWAGs.
It doesn't take much to be way off. What is even more confounding is
your problem contains a hidden trap.

The sleeve of brass that drops below the feed point is embracing the
jacket of the RG174. THIS constitutes the dielectric constant of
interest and is a material that is different from the insulator of the
inner line. Even more, and as you note above, there is some air mixed
in to really gum up the back of the napkin calculations. This is the
G of the SWAG.

Worst yet, some jacket material is actually quite lossy, or so it has
been reported - another G of the SWAG.

All-in-all, what you need to do is build one and measure it. No doubt
that will lead to another trail of tears. On the other hand, there is
nothing so stimulating to learning than pain. Most of my best
subjects centered on projects I thoroughly screwed up.

As the saying goes:
"If you haven't failed, you aren't trying hard enough."

73's
Richard Clark, KB7QHC

1585. Re: Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 07:54:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dho3mt$97u$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69582

Walt,

We are all sentimentally attached to the area where we were born. I find it intriguing you were brought up in the same sort of industrial region as I was dragged up in. There are a few descriptive paragraphs in "A bit about Reg" in my website.

Please forgive me for assuming the largest city of Detroit to be the political capital of Michigan when it is actually Lansing.

Again there is a similarity. The political capital of Warwickshire is not the largest city of Birmingham but the small ancient town of Warwick with its castle, not far from Shakespeare's Stratford-upon-Avon.

Is Michigan named after an Indian tribe?

Reg.

1586. Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 08:01:27 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <252vj1p09echnki252ss6839q778pf3rc6@4ax.com>
Source record: 69583

On Sun, 02 Oct 2005 05:47:46 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:

>Yes, of course that should have read 2.5 : 1 SWR which is better than my
>`loaded` half size G5RV on 80 at about 100kcs 2.5 : 1 SWR.......

What is a "'loaded' half size G5RV"?

Googling for info, I see a few suppliers with loading coils for a half
size G5RV (complete with instructions), but could not find an article
with physical dimensions and loading coil characteristics.

Is this a "proprietary" antenna, not open to independent analysis.

In its "normal" mode, a (full size) G5RV has feed system losses on
160m like cricket scores. Intuition suggests that a half-size G5RV
(where everything is scaled to 50%) will have similarly appalling
performance on 80m.

Has anyone seen details of the loading coils for this "loaded
half-sized G5RV', or models of its performance?

Owen
--

1587. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 08:18:01 UTC
From: David <groups@orbitcoms.com>
Message-ID: <ZIM%e.4920$U51.411@news-server.bigpond.net.au>
Source record: 69584

Richard,

Thanks for the feedback. No problem with the failing issue, plenty of
that going on.

The way I see it though is that if I can add some knowledge to my
experimentation then at least I can "play" with some hope of moving to a
solution in the right direction.

Richard Clark wrote:
> On Sun, 02 Oct 2005 07:16:01 GMT, David <groups@orbitcoms.com> wrote:
>
>
>>I need to understand what needs to be used to calculate the length of
>>Brass tubing sleeve given the tubing diameter is 5/32 and besides air,
>>the outer sheath of the RG174 is also between the sleeve and Earth
>>braid. Is the diameter of the tubing critical (will it impact adversely
>>on SWR looking into this antenna).
>
>
> Hi David,
>
> The Er of the metal is not something that comes quickly to mind
> (especially this late at night). Besides, it sounds like what you are
> describing is the radial component which would be fantastically small
> (many decimal places, not simply tens of percent).
>
> It also seems like your application is for UHF (you need to be more
> specific). This makes such "calculations" little better than SWAGs.
> It doesn't take much to be way off. What is even more confounding is
> your problem contains a hidden trap.
>
> The sleeve of brass that drops below the feed point is embracing the
> jacket of the RG174. THIS constitutes the dielectric constant of
> interest and is a material that is different from the insulator of the
> inner line. Even more, and as you note above, there is some air mixed
> in to really gum up the back of the napkin calculations. This is the
> G of the SWAG.
>
> Worst yet, some jacket material is actually quite lossy, or so it has
> been reported - another G of the SWAG.
>
> All-in-all, what you need to do is build one and measure it. No doubt
> that will lead to another trail of tears. On the other hand, there is
> nothing so stimulating to learning than pain. Most of my best

> subjects centered on projects I thoroughly screwed up.
>
> As the saying goes:
> "If you haven't failed, you aren't trying hard enough."
>
> 73's
> Richard Clark, KB7QHC

1588. Re: Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 10:02:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhob71stq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69585

Michigan has had the most productive industry in the world.
> It also has some of the most productive agricultural land -
especially for
> being in the north. However, Michigan (and others) are going
through a
> major change. The advent of fast, inexpensive communication and
> transportation have seen the movement of vast numbers of
manufacturing jobs
> to areas where wages are low. Many square miles of factories have
been
> pulled-down to bare ground. (Taxes are thus reduced - often next to
> impossible to sell the land because of unknown pollutants from 90 or
more of
> industrial use.) Ascendant in Michigan are jobs that produce
intellectual
> property, that are involved with higher education, and that are
involved
> with medicine including research. The new worker is different.
>
==========

Dear J.

Birmingham and the Black Country has suffered a similar fate. Once upon a time EVERYTHING was made in Birmingham. I began work at the age of 14 in an electric motor factory. (I've never met a university professor.) Factories have now been converted to museums as an adjunct to the tourist trade.

Only this very week, the last of the once-upon-a-time many Black Country iron foundries poured the last few tons of molten iron from its furnaces. Sadly, three months back the last of the 100-year old motor factories, which started with bicycles, closed its gates rendering 15,000 people redundent. Motor production is to continue in China. Not that I have anything against the enterprising, hard-working Chinese who bought the factory complete with the intellectual property. Good luck to 'em.

The rot set in with Lady Maggie Thatcher who favoured the so-called 'service industries'. Now we have Blair who's selling off the Health Service and has loaned the British Army, free of charge, to the Americans. But we can't get rid of him until Bush has gone.

Now back to, the always with us, SWR. ;o)

Yours, Reg.

1589. Re: Tables of Er for various metal tubes ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 10:54:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhoe91$l3i$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69586

"David" wrote
> Does anyone know where I can find Er tables for various type and
diameter
> of metal tubing so I can calculate Velocity coefficient Vp ?
>
==========
The velocity factor of any conductor, including tubes, depends only on what surrounds it.

If the surroundings are air, which is mainly oxygen and nitrogen, then the VF = 1.00, equivalent, in metric units, to a velocity of 300 metres per micro-second. Or in ancient, old-fashioned units, it is the far-less-convenient 669600000 miles per hour, give or take a few 100,000 miles. Who cares?

Reg.

1590. Re: Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 11:59:32 UTC
From: Buther Boy <me@privacy.net>
Message-ID: <1pivj1dpef92l4b61vlbqe03ravkj3dfbm@4ax.com>
Source record: 69587

Howard:

I somehow "dreamed" of being able to hide this random wire in my house
and tune it up, but that is looking more improbable by the minute. I
live in a town home and have no yard. Things don't look good, but I
have an excellent idea of how this all works. I appreciate your help,
Howard, and thanks for the detailed explanations.

Buther Boy

On Sat, 01 Oct 2005 20:55:22 -0700, mensch90249@yahoo.com wrote:

>On Sat, 01 Oct 2005 20:30:52 -0500, Buther Boy <me@privacy.net> wrote:
>
>>Howard:
>>
>>I read the article, and would really appreciate it if you would please
>>simplify construction AND installation for me. Step by step, where
>>applicable and if possible.
>>
>>Many thanks in advance. :-)
>>
>>Buther Boy
>
>Buther,
>I'm going to refer you to another website that has further explained
>it and offers some illustrations - a picture is worth.......
>
>Yes, it's a bit of laziness on my part and also an admission that I'm
>not so hot at writing instructions. A few tips though:
>1) Insulators; wire antenna attached to one hole, rope to the other -
>the rope ties off to a support such as a mast, tree or house.
>2) Lead in wire/transmission line; the wire can come directly to the
>house but can pick up lots of noise, using coaxial cable (and a
>suitable ground) can help reduce this - attach the center conductor to
>the antenna and the shield (braided wire just under the plastic
>jacket) to ground. if for listening only go ahead and use 75 ohm
>cable as you would buy for your cable or satellite TV system.
>3) Ground; a metal rod, typically 8 feet long, driven into the ground;
>you can use the ground rod for your home electrical.
>4) Keep your antenna as far from power lines as you can and
>perpendicular to the power lines (if nearby) can help to reduce noise
>vs parallel to them.
>
>Here's the site promised: http://www.kc7nod.20m.com/random_wire.htm

>Thanks to KC7NOD for taking the time to put this info on his site.
>Also, don't forget that Google is your friend, type in 'random wire
>antenna' and you will receive a wealth of other info.
>
>Howard

--
Remove the word Spam from my e-mail to contact me...
http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
~

1591. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 12:21:11 UTC
From: Mike <kc2ftn@hotmail.com>
Message-ID: <433fd30a@news.usenetzone.com>
Source record: 69588

I think he was pointing out that he is hiding about as well as you are
hiding.
"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:55b0c$433f44ba$97d558d8$25020@ALLTEL.NET...
> Do I look like I am "hiding" you twit!
>
> I can see not only are you too stupid to use a newsreader, in addition you
> have no clue as to what can be gleaned from my call.
>
> I love upsetting supercillious net Nazis. Makes my day.
>
> "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> news:R7H%e.17307$Xl2.9545@twister.nyroc.rr.com...
>> Ok. So, you were the bully who couldn't follow rules and believe that
> they
>> never apply to you. So, now you are continuing that ideology in life as
> you
>> "hide behind your keyboard."
>
>

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1592. Re: Tables of Er for various metal tubes ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 13:13:04 UTC
From: David <groups@orbitcoms.com>
Message-ID: <A1R%e.5171$U51.541@news-server.bigpond.net.au>
Source record: 69589

OK, so the electrical wavelength of the tube will only be effected by
the dielectric material and it does not make any difference how large
the gap is between the Sleeve and the Coax ?

The frequency of operation is 920 MHz.

Do you happen to know what the covering is made of on the outer sheath
of RG174 ? The cable I have has a stranded inner core and seems to have
a PFTE dielectric. (Doesn't melt at all when soldering so I assume this
is what it is).

Reg Edwards wrote:
> "David" wrote
>
>>Does anyone know where I can find Er tables for various type and
>
> diameter
>
>>of metal tubing so I can calculate Velocity coefficient Vp ?
>>
>
> ====================================
> The velocity factor of any conductor, including tubes, depends only on
> what surrounds it.
>
> If the surroundings are air, which is mainly oxygen and nitrogen, then
> the VF = 1.00, equivalent, in metric units, to a velocity of 300
> metres per micro-second. Or in ancient, old-fashioned units, it is the
> far-less-convenient 669600000 miles per hour, give or take a few
> 100,000 miles. Who cares?
> ---
> Reg.
>
>

1593. Re: Has anyone any experiences with B&W's AP-10A 300 watt portable antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 13:34:03 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <oqnvj192mpctsufcpakbt84b15e0hs7lqo@4ax.com>
Source record: 69590

On Sat, 01 Oct 2005 21:09:27 -0500, Buther Boy <me@privacy.net> wrote:

>It is supposed to work on 2-40 meters, and is located on page 83 of
>HRO's (hamradio.com) online PDF catalog.
>
>Buther Boy

25 years ago, I had one in a 3rd story apartment. I mounted the whip in a window, about 20 feet up. It worked reasonably well. I was able to tune it up on all bands, including 40 meters. The key is to adjust the length of the counterpoise wire for each frequency you tune up -- I had the wire on a metal spool, and rolled or unrolled the wire till I had low SWR. That wire is hot with RF, so I had a hot wire running across the apartment rug, and you have to watch that. Since you're in a townhouse, you'll be able to ground your station, which I was not able to do in the apartment, so you'll be ahead on that count.

For limited space, it's a pretty neat setup, and you can make contacts with it; not as well as with a dipole outdoors, but it works.

bob
k5qwg

1594. Re: Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 13:42:29 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <hpovj1959vrd4uqpod6eobha0f4upjs2o8@4ax.com>
Source record: 69591

On Sat, 01 Oct 2005 19:59:22 -0500, Buther Boy <me@privacy.net> wrote:

>I'm looking at the MFJ-16010, and want to buy some random wire and do
>some antenna experimenting. Could someone please point me to a
>link(s) for random wire antennas?
>
>Buther Boy

Get your tuner, get a 500 foot roll of #14 insulated wire from Lowes
or Home Depot (about $30), order a copy of the ARRL Antenna Book from
their web site for the particulars on random or long wires, and you'll
be all set.

bob
k5qwg

1595. Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 14:15:26 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <2YR%e.2887$nJ2.2349@fe73.usenetserver.com>
Source record: 69592

I'm a bit confused over the construction of a vertical colinear.

The docs I've seen all are more or less the same, alternating half-wave sections of coax or hardline.
The thing that's bending my head, is that there's a velocity factor inside the coax, that presumably isn't there on the outside.
So, while a given section is a half wave on the outside, it's probably more like 3/4 wave inside.

My understanding is that we are trying to get to a series of dipoles all fed in phase, and yet this seems like it's not accomplishing that.

What am I missing?

1596. Re: Hams to the Rescue

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 14:58:08 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <%zS%e.17526$mH.6909@fed1read07>
Source record: 69593

To get back to the subject title -- take a look at this excellent website
http://www.wx4nhc.org/

--
CL -- I doubt, therefore I might be !

1597. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 15:21:21 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <26afc$433ffb24$97d558d8$6525@ALLTEL.NET>
Source record: 69594

I don't really care, he bores me with his Damyankee, liberal attitude. If there are no rules to control your every move, they will make up some, and get then upset when you don't follow them.

"Mike" <kc2ftn@hotmail.com> wrote in message
news:433fd30a@news.usenetzone.com...
> I think he was pointing out that he is hiding about as well as you are
> hiding.
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:55b0c$433f44ba$97d558d8$25020@ALLTEL.NET...
> > Do I look like I am "hiding" you twit!
> >
> > I can see not only are you too stupid to use a newsreader, in addition
you
> > have no clue as to what can be gleaned from my call.
> >
> > I love upsetting supercillious net Nazis. Makes my day.
> >
> > "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> > news:R7H%e.17307$Xl2.9545@twister.nyroc.rr.com...
> >> Ok. So, you were the bully who couldn't follow rules and believe that
> > they
> >> never apply to you. So, now you are continuing that ideology in life
as
> > you
> >> "hide behind your keyboard."
> >
> >
>
>
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1598. Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 16:14:32 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1128269672.814425.42830@g14g2000cwa.googlegroups.com>
Source record: 69595

I'm looking for a source for small inexpensive 12VDC relays which are usable for cold-switching ~200W of RF at frequencies up to 30 Mhz. The relays would be used to remotely select several single-band antenna tuners and several end-fed vertical wire antennas strung up into some tall trees. The "tuners" would be link-coupled tapped parallel tank ciruits, one tuner per band.

There would be two relays needed per band, one to switch the 50 ohm coax from the shack to the specific tuner and the other at the output end of the tuner to select the particular wire. At the input ends of the tuners the RF voltage would be around 200V @ 2 amps. At the output ends of the tuners (depending on the feedpoint impedance) the RF voltage could go into the 2kV range at very low currents. So basically I need some sort of relays which can handle 2kV of HF RF at 2 amps. Single pole NO non-latching reed switches would do the job.

I know I can use surplus vacuum relays but at $35-40 a pop that ain't gonna happen.

Any and all suggestions will be appreciated.

w3rv

1599. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 16:27:17 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <FTT%e.17504$Xl2.16932@twister.nyroc.rr.com>
Source record: 69596
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Hey, Fred,
Does this ring a bell? Why do you feel this group would be any different
than the one you posted the following message to?

Re: Man, Mr. bush Jr. sure is wicked evil eh?
by "w4jle" <w4jle@ > Apr 22, 2004 at 07:13 PM

Take this crap to alt.wewearaluminimum.hats

Any body forwarding this much crap either is being paid to do it, or
seriously needs to get a life!

--
W4jle.com - Home of the Professional Curmudgeon

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:55b0c$433f44ba$97d558d8$25020@ALLTEL.NET...
> Do I look like I am "hiding" you twit!
>
> I can see not only are you too stupid to use a newsreader, in addition you
> have no clue as to what can be gleaned from my call.
>
> I love upsetting supercillious net Nazis. Makes my day.
>
> "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> news:R7H%e.17307$Xl2.9545@twister.nyroc.rr.com...
>> Ok. So, you were the bully who couldn't follow rules and believe that
> they
>> never apply to you. So, now you are continuing that ideology in life as
> you
>> "hide behind your keyboard."
>
>

1600. Re: Antenna improvements?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 16:37:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <z4ednVjk_e0qkd3eRVn-sg@crocker.com>
Source record: 69597

```
"Tom Ring" <news0002@taring.org> wrote in message
news:433f3547$0$3760$39cecf19@news.twtelecom.net...
> Roger Conroy wrote:
>
>>>"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in
>>>message
>>>news:MSGID_1=3a167=2f133.0_430dd78a@fidonet.org...
>>>"Dave" bravely wrote to "All" (25 Aug 05 12:48:54)
>>>--- on the heady topic of "Re: Antenna improvements?"
>>>
>>>
>>>Physicists bounce radar off meteor trails in the upper atmosphere.
>>>This ionized air path reflects radio waves and can be detected.
>>
>>
>> You don't need to be a physicist to do it.
>> Many Hams (without degrees in physics) do it routinely, and what's more,
>> they don't merely "detect" the reflected radio waves, they actually
>> achieve useful communication with them.
>>
>> 73
>> Roger ZR3RC
>
> Meteor scatter is pretty common among us folks that get our butts out of
> the HF ghetto upon occasion. That, plus the occasional second hop on E,
> AuE, TE, or F (when in season) can provide a nice DX surprise.
>
> tom
> K0TAR
```

hey, meteor scatter works on hf also! i use it on 10m regularly.

1601. Re: Tables of Er for various metal tubes ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 16:42:34 UTC
From: Dave <noone@nowhere.com>
Message-ID: <P66dnRCdYYNgkN3eRVn-2A@crocker.com>
Source record: 69598

what sleeve and what coax? you asked about Er for tubing and didn't mention
any other components.

"David" <groups@orbitcoms.com> wrote in message
news:A1R%e.5171$U51.541@news-server.bigpond.net.au...
> OK, so the electrical wavelength of the tube will only be effected by the
> dielectric material and it does not make any difference how large the gap
> is between the Sleeve and the Coax ?
>
> The frequency of operation is 920 MHz.
>
> Do you happen to know what the covering is made of on the outer sheath of
> RG174 ? The cable I have has a stranded inner core and seems to have a
> PFTE dielectric. (Doesn't melt at all when soldering so I assume this is
> what it is).
>
>
>
> Reg Edwards wrote:
>> "David" wrote
>>
>>>Does anyone know where I can find Er tables for various type and
>>
>> diameter
>>
>>>of metal tubing so I can calculate Velocity coefficient Vp ?
>>>
>>
>> ====================================
>> The velocity factor of any conductor, including tubes, depends only on
>> what surrounds it.
>>
>> If the surroundings are air, which is mainly oxygen and nitrogen, then
>> the VF = 1.00, equivalent, in metric units, to a velocity of 300
>> metres per micro-second. Or in ancient, old-fashioned units, it is the
>> far-less-convenient 669600000 miles per hour, give or take a few
>> 100,000 miles. Who cares?
>> ---
>> Reg.
>>

1602. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 17:03:12 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11k04mh9vbli6d1@corp.supernews.com>
Source record: 69599

David wrote:
> I am a little confused with calculation of appropriate length of metal
> tubing used in a sleeve antenna design (the 1/4 wave section).
>
> I understand that as RF travels through various mediums, Velocity of the
> wave slows down relative to Er of the material. So for coax the
> wavelength would be say 0.66 Lambda.
>
> With the tubing over a coaxial cable though it seems there is Vp related
> to the dielectric formed between the sleeve and the outer sheath of the
> coax cable but also the Metal has an Er value.
>
> 1. Do you need to count for both these when calculate how the tube
> should be.
> 2. Is there relationship that needs to be considered between sleeve
> length and distance between sleeve and coax (ie. If the sleeve is made
> larger diameter does it effect the length required for the tube or is
> this still defined strictly by Er) also, Does the diameter of the tube
> effect the impedance ?
>
> The specific example is RG174 Coax cable vertical dipole. The top
> radiating element is 1/4 long. At the bottom of this element is a length
> of RG174 Coax. 1/4 wave length of this coax has a 5/32 Brass sleeve. The
> sleeve is soldered to the RG174 coax at the point where the coax meets
> the top 1/4 wave element.
> I need to understand what needs to be used to calculate the length of
> Brass tubing sleeve given the tubing diameter is 5/32 and besides air,
> the outer sheath of the RG174 is also between the sleeve and Earth
> braid. Is the diameter of the tubing critical (will it impact adversely
> on SWR looking into this antenna).
>
> The final point would be if I place some ferrite rings across the coax
> below the sleeve, will this improve SWR ?
>
> Thanks
>
> Regards
>
> David
David;

That's why they call it the ART of antenna design. First you make the
best mathematical calculations you can then you start cutting
wire/tubing. Make your lengths slightly longer than the math says then

prune the lengths until the antenna works the way you think it should.

There are so many variables in antennas that this is the only practical way to make a new one. Once you find your optimal lengths you can make more to the same specs. However remember that just like in housing antenna's depend on three things: location, location, location and have to be custom adjusted for each site.

Dave WD9BDZ

1603. Re: Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 17:14:15 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11k05blgo2vgq65@corp.supernews.com>
Source record: 69600

Dear Reg:

In both of our countries, major changes are occurring. In the truly
creative sphere, the English speaking countries are still ahead. Education
in the "hard" subjects is critical.
Well now, Reg, you have at last met (via the Internet) an actual
university professor of electrical engineering.
73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhob71stq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
> Michigan has had the most productive industry in the world.
> > It also has some of the most productive agricultural land -
> especially for
> > being in the north. However, Michigan (and others) are going
> through a
> > major change. The advent of fast, inexpensive communication and
> > transportation have seen the movement of vast numbers of
> manufacturing jobs
> > to areas where wages are low. Many square miles of factories have
> been
> > pulled-down to bare ground. (Taxes are thus reduced - often next to
> > impossible to sell the land because of unknown pollutants from 90 years
or
> more of
> > industrial use.) Ascendant in Michigan are jobs that produce
> intellectual
> > property, that are involved with higher education, and that are
> involved
> > with medicine including research. The new worker is different.
> >
> ==
> Dear J.
>
> Birmingham and the Black Country has suffered a similar fate. Once
> upon a time EVERYTHING was made in Birmingham. I began work at the age
> of 14 in an electric motor factory. (I've never met a university
> professor.) Factories have now been converted to museums as an adjunct
> to the tourist trade.
>
> Only this very week, the last of the once-upon-a-time many Black

> Country iron foundries poured the last few tons of molten iron from
> its furnaces. Sadly, three months back the last of the 100-year old
> motor factories, which started with bicycles, closed its gates
> rendering 15,000 people redundent. Motor production is to continue in
> China. Not that I have anything against the enterprising, hard-working
> Chinese who bought the factory complete with the intellectual
> property. Good luck to 'em.
>
> The rot set in with Lady Maggie Thatcher who favoured the so-called
> 'service industries'. Now we have Blair who's selling off the Health
> Service and has loaned the British Army, free of charge, to the
> Americans. But we can't get rid of him until Bush has gone.
>
> Now back to, the always with us, SWR. ;o)
> ----
> Yours, Reg.
>
>

1604. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 17:26:00 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <OKU%e.2889$nJ2.1990@fe73.usenetserver.com>
Source record: 69601

>> With the tubing over a coaxial cable though it seems there is Vp related
>> to the dielectric formed between the sleeve and the outer sheath of the
>> coax cable but also the Metal has an Er value.

From what I understand, the RF will be traveling on the outside of the
sleeve, and won't "see" the internals at all.
So, the sleeve ends up as a 1/4 wavelength stub.

Is the diameter of the tubing critical (will it impact adversely
>> on SWR looking into this antenna).

It shouldn't be

>> The final point would be if I place some ferrite rings across the coax
>> below the sleeve, will this improve SWR ?

Not if the sleeve is doing it's job.
The sleeve's open end should look like a short at the operating frequency,
and keep RF off the feedline.

>> Thanks
>>
>> Regards
>>
>> David
> David;
>
> That's why they call it the ART of antenna design. First you make the
> best mathematical calculations you can then you start cutting wire/tubing.
> Make your lengths slightly longer than the math says then prune the
> lengths until the antenna works the way you think it should.
>
> There are so many variables in antennas that this is the only practical
> way to make a new one. Once you find your optimal lengths you can make
> more to the same specs. However remember that just like in housing
> antenna's depend on three things: location, location, location and have to
> be custom adjusted for each site.
>
> Dave WD9BDZ

1605. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 17:35:39 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <nYudnY9BXtrxh93eRVn-hw@adelphia.com>
Source record: 69602

Cecil Moore wrote:
> Mike Coslo wrote:
>
>> Indeed. But it is such a misleading term. It gets people to believe
>> that an antenna which is very inefficient, yet have a low "takeoff
>> angle" is somehow superior to an antenna that may have a higher TOA,
>> but may have more overall "oomph" at the same angle as the lower TOA
>> antenna.
>
>
> I agree that it would have been nice if TOA had not been defined that
> way. What I always attempt to do is state a gain to go with the TOA.

I think it might have been Richard C. who nailed it that it makes for
better claims by manufacturers.

- Mike KB3EIA -

1606. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 18:30:58 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2e4ae$43402795$97d558d8$23323@ALLTEL.NET>
Source record: 69603
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Did we cause you to spend two days googling newsgroups? You could have found
much better examples, I have been getting after net nazis since the ARPA
days. Your still a damnyankee liberal twit.

"Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
news:FTT%e.17504$Xl2.16932@twister.nyroc.rr.com...
> Hey, Fred,
> Does this ring a bell? Why do you feel this group would be any different
> than the one you posted the following message to?
>
> Re: Man, Mr. bush Jr. sure is wicked evil eh?
> by "w4jle" <w4jle@ > Apr 22, 2004 at 07:13 PM
>
>
> Take this crap to alt.wewearaluminimum.hats
>
> Any body forwarding this much crap either is being paid to do it, or
> seriously needs to get a life!
>
>
> --
> W4jle.com - Home of the Professional Curmudgeon
>
>
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:55b0c$433f44ba$97d558d8$25020@ALLTEL.NET...
> > Do I look like I am "hiding" you twit!
> >
> > I can see not only are you too stupid to use a newsreader, in addition
you
> > have no clue as to what can be gleaned from my call.
> >
> > I love upsetting supercillious net Nazis. Makes my day.
> >
> > "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> > news:R7H%e.17307$Xl2.9545@twister.nyroc.rr.com...
> >> Ok. So, you were the bully who couldn't follow rules and believe that
> > they
> >> never apply to you. So, now you are continuing that ideology in life
as
> > you

> >> "hide behind your keyboard."
> >
> >
>
>

1607. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 19:21:15 UTC
From: Pat Stevens <patstevens196@rochester.rr.com>
Message-ID: <LqW%e.18322$Xl2.4448@twister.nyroc.rr.com>
Source record: 69604
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

No, I only spent a couple of minutes looking. I thought it was interesting
that the shoe is now on the other foot, for you. Found your page
interesting, too.
However, I find it ironic that you call me a yankee. I have been trying to
shed the southerner image here with my friends and coworkers ever since I
moved up here from Myrtle Beach, after retiring from the Air Force. I grew
up in Beaufort, SC, near the Naval Hospital. Most people say that I still
have the accent.

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:2e4ae$43402795$97d558d8$23323@ALLTEL.NET...
> Did we cause you to spend two days googling newsgroups? You could have
> found
> much better examples, I have been getting after net nazis since the ARPA
> days. Your still a damnyankee liberal twit.
>
>
> "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> news:FTT%e.17504$Xl2.16932@twister.nyroc.rr.com...
>> Hey, Fred,
>> Does this ring a bell? Why do you feel this group would be any different
>> than the one you posted the following message to?
>>
>> Re: Man, Mr. bush Jr. sure is wicked evil eh?
>> by "w4jle" <w4jle@ > Apr 22, 2004 at 07:13 PM
>>
>>
>> Take this crap to alt.wewearaluminimum.hats
>>
>> Any body forwarding this much crap either is being paid to do it, or
>> seriously needs to get a life!
>>
>>
>> --
>> W4jle.com - Home of the Professional Curmudgeon
>>
>>
>>
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:55b0c$433f44ba$97d558d8$25020@ALLTEL.NET...
>> > Do I look like I am "hiding" you twit!
>> >

>> > I can see not only are you too stupid to use a newsreader, in addition
> you
>> > have no clue as to what can be gleaned from my call.
>> >
>> > I love upsetting supercillious net Nazis. Makes my day.
>> >
>> > "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
>> > news:R7H%e.17307$Xl2.9545@twister.nyroc.rr.com...
>> >> Ok. So, you were the bully who couldn't follow rules and believe that
>> > they
>> >> never apply to you. So, now you are continuing that ideology in life
> as
>> > you
>> >> "hide behind your keyboard."
>> >
>> >
>>
>>
>
>

1608. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 19:21:53 UTC
From: Dan Richardson <>
Message-ID: <2oc0k19oojioarb4iu5fo5j1kmev2201og@4ax.com>
Source record: 69605

On Sun, 2 Oct 2005 12:26:00 -0500, "Dave VanHorn"
<dvanhorn@dvanhorn.org> wrote:

>Not if the sleeve is doing it's job.
>The sleeve's open end should look like a short at the operating frequency,
>and keep RF off the feedline.

If you wish to keep common mode off the feedline you will need to add
decoupling.

That's the old AEA ISO-Loop had that extra sleeve.

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

1609. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 19:23:44 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <4tW%e.3427$kl3.1494@trnddc08>
Source record: 69606

"Brian Kelly" <kelly@dvol.com> wrote in message
news:1128269672.814425.42830@g14g2000cwa.googlegroups.com...
> I'm looking for a source for small inexpensive 12VDC relays which are
> usable for cold-switching ~200W of RF at frequencies up to 30 Mhz. The
> relays would be used to remotely select several single-band antenna
> tuners and several end-fed vertical wire antennas strung up into some
> tall trees. The "tuners" would be link-coupled tapped parallel tank
> ciruits, one tuner per band.
>
> There would be two relays needed per band, one to switch the 50 ohm
> coax from the shack to the specific tuner and the other at the output
> end of the tuner to select the particular wire. At the input ends of
> the tuners the RF voltage would be around 200V @ 2 amps. At the output
> ends of the tuners (depending on the feedpoint impedance) the RF
> voltage could go into the 2kV range at very low currents. So basically
> I need some sort of relays which can handle 2kV of HF RF at 2 amps.
> Single pole NO non-latching reed switches would do the job.
>
> I know I can use surplus vacuum relays but at $35-40 a pop that ain't
> gonna happen.
>
> Any and all suggestions will be appreciated.
>
> w3rv

Brian

Have you considered building your own coax relays? It is fairly easy to
construct a SPST coax relay with glass enclosed tube shaped reed relays.
Their performance may be acceptable to you, maybe not. But I have built my
own coax relays from regular relays and have gotten adequate performance.

Jerry

1610. Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 20:01:26 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_434031d0@fidonet.org>
Source record: 69608

"Dave VanHorn" bravely wrote to "All" (02 Oct 05 09:15:26)
--- on the heady topic of "Vertical colinear"

DV> From: "Dave VanHorn" <dvanhorn@dvanhorn.org>
DV> Xref: core-easynews rec.radio.amateur.antenna:217909

DV> I'm a bit confused over the construction of a vertical colinear.

DV> The docs I've seen all are more or less the same, alternating
DV> half-wave sections of coax or hardline.
DV> The thing that's bending my head, is that there's a velocity factor
DV> inside the coax, that presumably isn't there on the outside.

DV> So, while a given section is a half wave on the outside, it's probably
DV> more like 3/4 wave inside.
DV> My understanding is that we are trying to get to a series of dipoles
DV> all fed in phase, and yet this seems like it's not accomplishing that.

DV> What am I missing?

The wave energy travels alternately on the outside of the center
conductor and then on the inside of the braid or shielding. So both
see the same velocity factor. Does that make sense?

A*s*i*m*o*v

... What if there were no hypothetical situations?

1611. Re: Where to by random wire (longwire) antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 20:01:28 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_434031d1@fidonet.org>
Source record: 69607

"Buther Boy" bravely wrote to "All" (02 Oct 05 06:59:32)
--- on the heady topic of "Re: Where to by random wire (longwire) antennas"

BB> From: Buther Boy <me@privacy.net>
BB> Xref: core-easynews rec.radio.amateur.antenna:217904

BB> Howard:

BB> I somehow "dreamed" of being able to hide this random wire in my house
BB> and tune it up, but that is looking more improbable by the minute. I
BB> live in a town home and have no yard. Things don't look good, but I
BB> have an excellent idea of how this all works. I appreciate your help,
BB> Howard, and thanks for the detailed explanations.

BB> Buther Boy

You can hide wire in the oddest places. For example there is a 40 foot
long clothesline outside in back of the house and it is made of steel.
Someone a little bit crafty might replace that line with copperclad
and nobody would be the wiser unless they looked a little closer.
Hidden in plain sight!

A*s*i*m*o*v

... "Please do not offer my god a peanut!" --Apu

1612. Re: Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 20:20:27 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <giX%e.6857$iO2.5914@fe82.usenetserver.com>
Source record: 69610

The wave energy travels alternately on the outside of the center
conductor and then on the inside of the braid or shielding. So both
see the same velocity factor. Does that make sense?

Hmm..
So the first and second radiators are not in phase, but the first, third,
fifth .... are in phase with each other, and the second, fourth, etc are in
phase with each other?

1613. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 20:22:51 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3353f$434041cf$97d558d8$17905@ALLTEL.NET>
Source record: 69611
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

OK, since your one of us we will give you a little slack. I will even point out that the example you found had nothing to do with rules, but sent an idiot to a non-existant forum who daily posted far out anti Bush stuff.

"Pat Stevens" <patstevens196@rochester.rr.com> wrote in message news:LqW%e.18322$Xl2.4448@twister.nyroc.rr.com...
> No, I only spent a couple of minutes looking. I thought it was interesting
> that the shoe is now on the other foot, for you. Found your page
> interesting, too.
> However, I find it ironic that you call me a yankee. I have been trying to
> shed the southerner image here with my friends and coworkers ever since I
> moved up here from Myrtle Beach, after retiring from the Air Force. I grew
> up in Beaufort, SC, near the Naval Hospital. Most people say that I still
> have the accent.
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:2e4ae$43402795$97d558d8$23323@ALLTEL.NET...
> > Did we cause you to spend two days googling newsgroups? You could have
> > found
> > much better examples, I have been getting after net nazis since the ARPA
> > days. Your still a damnyankee liberal twit.
> >
> >
> > "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> > news:FTT%e.17504$Xl2.16932@twister.nyroc.rr.com...
> >> Hey, Fred,
> >> Does this ring a bell? Why do you feel this group would be any different
> >> than the one you posted the following message to?
> >>
> >> Re: Man, Mr. bush Jr. sure is wicked evil eh?
> >> by "w4jle" <w4jle@ > Apr 22, 2004 at 07:13 PM
> >>
> >>
> >> Take this crap to alt.wewearaluminimum.hats
> >>
> >> Any body forwarding this much crap either is being paid to do it, or
> >> seriously needs to get a life!
> >>
> >>

> >> --
> >> W4jle.com - Home of the Professional Curmudgeon
> >>
> >>
> >>
> >>
> >> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> >> news:55b0c$433f44ba$97d558d8$25020@ALLTEL.NET...
> >> > Do I look like I am "hiding" you twit!
> >> >
> >> > I can see not only are you too stupid to use a newsreader, in
addition
> > you
> >> > have no clue as to what can be gleaned from my call.
> >> >
> >> > I love upsetting supercillious net Nazis. Makes my day.
> >> >
> >> > "Pat Stevens" <patstevens196@rochester.rr.com> wrote in message
> >> > news:R7H%e.17307$Xl2.9545@twister.nyroc.rr.com...
> >> >> Ok. So, you were the bully who couldn't follow rules and believe
that
> >> > they
> >> >> never apply to you. So, now you are continuing that ideology in
life
> > as
> >> > you
> >> >> "hide behind your keyboard."
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1614. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 20:29:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <TqX%e.51$B14.50@newssvr11.news.prodigy.com>
Source record: 69609

Brian Kelly wrote:
> I know I can use surplus vacuum relays but at $35-40 a pop that ain't
> gonna happen.

Hi Brian, the Omron LY series seem to handle 100w for me.
Perhaps you can contact Omron about their limits.
--
73, Cecil http://www.qsl.net/w5dxp

1615. Re: Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 20:53:11 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <XMX%e.820$QW5.762@trnddc07>
Source record: 69612

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:2YR%e.2887$nJ2.2349@fe73.usenetserver.com...
> I'm a bit confused over the construction of a vertical colinear.
>
> The docs I've seen all are more or less the same, alternating half-wave
> sections of coax or hardline.
> The thing that's bending my head, is that there's a velocity factor inside
> the coax, that presumably isn't there on the outside.
> So, while a given section is a half wave on the outside, it's probably
> more like 3/4 wave inside.
>
> My understanding is that we are trying to get to a series of dipoles all
> fed in phase, and yet this seems like it's not accomplishing that.
>
> What am I missing?

Hi dave

I dont think you are missing anything. The feed points of each of the
radiating elements need to be in phase if 'broadside pattern max' is
desired.

Do you intend to build an array, or just trying to understand them?

Jerry

1616. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 21:04:48 UTC
From: whinyslit_lloydie@yahoo.com
Message-ID: <1128287088.547208.134900@g44g2000cwa.googlegroups.com>
Source record: 69613
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

You couldn't whoop the crap out of your colostomy bag.

1617. Re: Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 21:29:12 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <JiY%e.2044$AR2.1519@fe81.usenetserver.com>
Source record: 69614

> I dont think you are missing anything. The feed points of each of the
> radiating elements need to be in phase if 'broadside pattern max' is
> desired.
>
> Do you intend to build an array, or just trying to understand them?

Both. I have some FSJ1-50 that I got for the purpose.

The docs that I've seen are all pretty consistent on how it should be put together, but I just don't understand the workings of it.

IF the coax had a VF of 1.0, then it would make sense to me.

1618. Re: Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 21:30:03 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <xjY%e.2045$AR2.736@fe81.usenetserver.com>
Source record: 69615

Do all the elements radiate?

1619. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 22:06:17 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <+93nyucZnFQDFAzJ@ifwtech.co.uk>
Source record: 69616

Brian Kelly wrote:
>I'm looking for a source for small inexpensive 12VDC relays which are
>usable for cold-switching ~200W of RF at frequencies up to 30 Mhz. The
>relays would be used to remotely select several single-band antenna
>tuners and several end-fed vertical wire antennas strung up into some
>tall trees. The "tuners" would be link-coupled tapped parallel tank
>ciruits, one tuner per band.
>
>There would be two relays needed per band, one to switch the 50 ohm
>coax from the shack to the specific tuner and the other at the output
>end of the tuner to select the particular wire. At the input ends of
>the tuners the RF voltage would be around 200V @ 2 amps. At the output
>ends of the tuners (depending on the feedpoint impedance) the RF
>voltage could go into the 2kV range at very low currents. So basically
>I need some sort of relays which can handle 2kV of HF RF at 2 amps.
>Single pole NO non-latching reed switches would do the job.
>
>I know I can use surplus vacuum relays but at $35-40 a pop that ain't
>gonna happen.
>
>Any and all suggestions will be appreciated.

By coincidence, I was reading an electronics mag over breakfast today,
and saw this press release:

"Crydom has launched a high performance miniature reed relay boosting
carry currents by 33%. Fitting a full electrostatic copper screen that
completely enshrouds the relay coil, a reduction in power loss is
achieved. Lower loss means lower self heating – enabling an increase
in carry currents to an industry leading 4A RMS at 30MHz from the
miniature 30mm x 10mm package.

"The 6 Series is designed for next generation HF antenna couplers and
filter circuits where improved RF performance and higher packing
densities are required.

"The hermetically sealed high vacuum reed switch will isolate 3kV
minimum (DC or RF peak) making it suitable for a range of Test Equipment
and Electromedical applications where high voltage, high current pulses
are generated."

Without necessarily endorsing that particular product, there are a few
interesting points:

* Switching in HF antenna couplers and filters is now a recognized
market.

* Reed relays can handle this kind of service.

* Coupling into the coil can be a problem, which may suggest making your own. Crydom use a shielded coil, and an alternative idea ISTR is to wrap the glass relay tube in foil instead of the coil. (In both cases the shielding would need to be overlapping but non-shorting.) Which is the better would depend on the application, and how much shunt capacitance it can tolerate.

More details and a data sheet at:
http://www.crydom.co.uk/Webpages/archive-new_fully_screened_rf_relay.htm

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1620. Re: Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 22:20:47 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <33Z%e.4169$097.2908@trnddc01>
Source record: 69617

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:JiY%e.2044$AR2.1519@fe81.usenetserver.com...
>
>> I dont think you are missing anything. The feed points of each of the
>> radiating elements need to be in phase if 'broadside pattern max' is
>> desired.
>>
>> Do you intend to build an array, or just trying to understand them?
>
>
> Both. I have some FSJ1-50 that I got for the purpose.
>
> The docs that I've seen are all pretty consistent on how it should be put
> together, but I just don't understand the workings of it.
>
> IF the coax had a VF of 1.0, then it would make sense to me.

Dave

Have you looked at the collinear antenna on the web written by "Brian Oblivious"? He cuts the coax into equal lengths 1/2 wave each. And that 1/2 wavelength accounts for the velocity of propagation inside the coax. So, each length is somewhat shorter than the free space halfwave It shows how he connected lengths of coax to make a collinear array. In my opinion, that would be a waste of that good coax you have.

I once manufactured a vertical collinear antenna that had only one feed point and the other collinear elements were passively connected when stacked below the "fed dipole".

Sometimes it is convenient to mount vertical half wave dipoles around a vertical supporting mast and have a "corporate feed harness" within the mast. That works well.

1621. Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 22:29:13 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <r7evtegkcjgt.kuwb55vmxpjg$.dlg@40tude.net>
Source record: 69618
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Crossposted to:

rec.radio.amateur.antenna,rec.radio.amateur.misc,rec,radio.amateur.equipment

Novitiate here:

I am learning AM broadcast basics in particular the issues regarding the geo-targeted broadcasting of alert messages from moving vehicles. Would most appreciate any assistance.

Due to Katrina/Rita, the company I work for has been given the opportunity to demonstrate a messaging system that would reach out approximately 1 mile +/- in transmission deliverance. This would be an "overbroadcast" (my term) in that it would override local AM radio broadcasting to reach into cars, trucks etc. In particular, we are working with a stationary site (a chemical spill for instance) and an emergency vehicle that would move back and forth at and through the site, at up to 70 mph, broadcasting an alert, voice and tone message.

Reading about LPAM, this looks technically possible but one concern I have is antennae size. A fire truck, for instance, could have an antenna mounted on its front, and up to 4 feet over the top of its roof, so we might look at as much as 20 feet of length. I realize this places us over the 3 meter max so one of the ???? is whether LFAM is realistic.

Am I way off base here, can any antennae, fractal or other, or any AM antennae technology, be utilized to design an antenna and propagate this type of signal?

All comments appreciated.
--
Drop the alphabet for email

1622. Re: Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 22:34:24 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <QfZ%e.12769$qj2.6857@fe71.usenetserver.com>
Source record: 69619

> Have you looked at the collinear antenna on the web written by "Brian

> Oblivious"?

No, I googled on it but didn't hit anything.

> He cuts the coax into equal lengths 1/2 wave each.

The articles I have seen are 1/2 wave * the velocity factor.

Each one connecting center to shield.

I can't picture how the elements all end up resonant, and in phase.

Seems like one of those can't be true.

> And that

> 1/2 wavelength accounts for the velocity of propagation inside the coax.

> So, each length is somewhat shorter than the free space halfwave It shows

> how he connected lengths of coax to make a collinear array. In my opinion,

> that would be a waste of that good coax you have.

Why? It's nice rigid coax, and takes that sort of soldering well.

1623. Re: Vertical colinear

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 22:51:01 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <pvZ%e.9434$UD6.8446@trnddc04>
Source record: 69620

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:QfZ%e.12769$qj2.6857@fe71.usenetserver.com...
>> Have you looked at the collinear antenna on the web written by "Brian
>
>> Oblivious"?
>
> No, I googled on it but didn't hit anything.
>
>> He cuts the coax into equal lengths 1/2 wave each.
>
> The articles I have seen are 1/2 wave * the velocity factor.
>
> Each one connecting center to shield.
>
> I can't picture how the elements all end up resonant, and in phase.
>
> Seems like one of those can't be true.
>
>> And that
>
>> 1/2 wavelength accounts for the velocity of propagation inside the coax.
>
>> So, each length is somewhat shorter than the free space halfwave It shows
>
>> how he connected lengths of coax to make a collinear array. In my
>> opinion,
>
>> that would be a waste of that good coax you have.
>
> Why? It's nice rigid coax, and takes that sort of soldering well.

Dave

I didnt mean to imply that your good coax wouldnt work well. I (perhaps
wrongly) assumed that some garden variety coax might work OK for that
staggering of lengths of coax, inner conductor to outer conductor.

My web service thru Google, gets me that Brian Oblivious + Capt Kaboom
site on their 802.11 2.4 GHz antenna. They indicate that the "elements" are
1/2 wave long minus the Vp inside the coax. That will put the feed points
along that 'staggered' array, in phase.

You have probably already considered that there will be some beam squint
with this type of collinear. The "corporate fed" collinear will a
maintain a main beam broadside, even though sidelobes do increase with

bandwidth.

Jerry

1624. Re: Small, non-resonant, horiz. loop. was Re: Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 22:53:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhpoda$k75$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69621

Dear Prof.,

I too am concerned about the abysmal and still falling standards of
education in our schools and universities.

Prof., I am very pleased to have met you.

Reg, G4FGQ

1625. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 22:59:58 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <PDZ%e.15650$iM2.1279349@news.xtra.co.nz>
Source record: 69622
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:r7evtegkcjgt.kuwb55vmxpjg$.dlg@40tude.net...
> Crossposted to:
>
> rec.radio.amateur.antenna,rec.radio.amateur.misc,rec,radio.amateur.equipment
>
> Novitiate here:
>
> I am learning AM broadcast basics in particular the issues regarding the
> geo-targeted broadcasting of alert messages from moving vehicles. Would
> most appreciate any assistance.
>
> Due to Katrina/Rita, the company I work for has been given the opportunity
> to demonstrate a messaging system that would reach out approximately 1
> mile
> +/- in transmission deliverance. This would be an "overbroadcast" (my
> term)
> in that it would override local AM radio broadcasting to reach into cars,
> trucks etc. In particular, we are working with a stationary site (a
> chemical spill for instance) and an emergency vehicle that would move back
> and forth at and through the site, at up to 70 mph, broadcasting an alert,
> voice and tone message.
>
> Reading about LPAM, this looks technically possible but one concern I have
> is antennae size. A fire truck, for instance, could have an antenna
> mounted
> on its front, and up to 4 feet over the top of its roof, so we might look
> at as much as 20 feet of length. I realize this places us over the 3 meter
> max so one of the ???? is whether LFAM is realistic.
>
> Am I way off base here, can any antennae, fractal or other, or any AM
> antennae technology, be utilized to design an antenna and propagate this
> type of signal?
>
> All comments appreciated.
> --
The things that pop into my mind are why AM rather than FM, which tends to
be more local, and do you intend to 'over-broadcast' only the local channels
(how many?) - I assume you intend to make the channel(s) selectable - or the
entire band to ensure you get everyone? Assuming that there is a commercial
AM broadcast station in the vicinity (what, 10 miles? 20 miles?) you are
probably going to be flat out getting a mobile rig to ride over it. How do
you intend to do this?

Cheers.

Ken

1626. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-02 23:42:16 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <434071D1.1080009@nettally.com>
Source record: 69623
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

A disadvantage I see is that a waiver is going to be required in order not to violate FCC rules. In fact, in the state of Florida, interfering with broadcast stations is against state law, so another hurdle to be overcome. That being said, for this system to work, you have to blanket the entire AM and FM broadcast bands. Even doing so will leave out the motorists who use XM or Sirius, the Ipod listeners and those who are driving with their cellphones plugged into their ears.

Ari Silversteinn wrote:

>Crossposted to:
>
>rec.radio.amateur.antenna,rec.radio.amateur.misc,rec,radio.amateur.equipment
>
>Novitiate here:
>
>I am learning AM broadcast basics in particular the issues regarding the
>geo-targeted broadcasting of alert messages from moving vehicles. Would
>most appreciate any assistance.
>
>Due to Katrina/Rita, the company I work for has been given the opportunity
>to demonstrate a messaging system that would reach out approximately 1 mile
>+/- in transmission deliverance. This would be an "overbroadcast" (my term)
>in that it would override local AM radio broadcasting to reach into cars,
>trucks etc. In particular, we are working with a stationary site (a
>chemical spill for instance) and an emergency vehicle that would move back
>and forth at and through the site, at up to 70 mph, broadcasting an alert,
>voice and tone message.
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>on its front, and up to 4 feet over the top of its roof, so we might look
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>Am I way off base here, can any antennae, fractal or other, or any AM
>antennae technology, be utilized to design an antenna and propagate this
>type of signal?
>
>All comments appreciated.
>
>

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time
when he's only partially mad. And this is the time when he's
going to throw his best parties.

1627. using 450 ohm twin lead to feed 43 ft multiband groundmounted vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 00:08:17 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11k0tjh6hr34l44@corp.supernews.com>
Source record: 69624

I have been tinkering with a 43 ft ground mounted vertical with an extensive buried radial field. With a 4 to 1 voltage balun at the base, I have a good swr match particurlarly on 20 meters, and the antenna radiates and recieves comparabily with my 10 horizontal cage doublet fed with open wire ladderline.
I recently replaced the coax that feeds the balun at the vertical's base with 450 ohm twin lead utilizing the same balun at the antennas feedpoint, and still get a decent signal report...again comparing to the big cage dipole. The twin lead is enclose within some left over grey plastic conduit if anything to keep it out of the weather and to keep it about 2 feet off of the ground, parallel to the ground.There is no evidence ot the plastic conduit detuning the twin lead.
Tuning via either a link coupled transmatch or a dentron super tuner plus, utilizing its internal balun is broad smooth and no evidence of rfi in the shack with the exception of 30 meters.
Wonder if anyone has tried this before and how did they like this feed arrangement.
Thanks in advance, de Denton WB7TDG

1628. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 00:46:56 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <3lb613-l4c.ln1@p400bob.personal.cox.net>
Source record: 69526
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Hi Ari

I always wonder whether broadcast at the most common IF frequencies would be a viable alternative? (eg 455khz for AM) Legality issues aside of course... This would make frequency selection a little easier to engineer. You wouldnt have to divide your power budget into many operating frequencies as well. Problem is that you'd need a lot higher ERP especially since car mounted radios tend to be better shielded than portables. (You'll need to experiment some)

Since part of your engineering exercise will be to determine what ERP you want from the system you are proposing, the size of the antenna only needs to be considered in line with the transmitter output power. Obviously there will be a useful compromise somewhere that is cost effective. You might for example want a 100 watt TX for each frequency with a fairly lossy/terminated and loaded antenna. Your first port of call will be to determine what the likely highest strength of an AM/FM broadcast signal you will need to override, add maybe 20dB to that and work out your needed ERP. You will find lots of texts about the inefficiencies of MF antennas mounted on motor vehicles so that will give you some numbers to work with. Remember that making the antenna wideband will also introduce substantial loss. Note that you cant design the system to always work as you'll have situations where the radio stations transmitting antenna is right next to then freeqy where the event occurred! Decide on some statistical coverage percentage thing etc etc...

I worked for a concern in Sydney Australia that put in tunnel rebroadcast systems in the major underground roadworks in Sydney, Melbourne and Perth. Being in a tunnel of course there werent really any licensing issues. The system consisted of not only broadcast band (AM & FM) receivers but spot VHF/UHF FM receivers and transmitters for police, fire etc vehicles. Each broadcast frequency had its own transmitter. It was thought to be a better idea than using a wide band TX covering all frequencies. AM broadcast was coupled to a very long wire and the rest used a terminated leaky coax run.

Cheers Bob W5/VK2YQA

Ari Silversteinn wrote:
> I am learning AM broadcast basics in particular the issues regarding the
> geo-targeted broadcasting of alert messages from moving vehicles. Would
> most appreciate any assistance.
>

1629. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 00:49:50 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <unv0k11fqtr3i2s9osmav90p82vhot6nmo@4ax.com>
Source record: 69625

On Sun, 2 Oct 2005 18:29:13 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:

>Crossposted to:
>
>rec.radio.amateur.antenna,rec.radio.amateur.misc,rec,radio.amateur.equipment
>
>Novitiate here:

Clearly,
>
>I am learning AM broadcast basics in particular the issues regarding the
>geo-targeted broadcasting of alert messages from moving vehicles. Would
>most appreciate any assistance.

Nice idea but......
>
>Due to Katrina/Rita, the company I work for has been given the opportunity
>to demonstrate a messaging system that would reach out approximately 1 mile
>+/- in transmission deliverance. This would be an "overbroadcast" (my term)
>in that it would override local AM radio broadcasting to reach into cars,
>trucks etc. In particular, we are working with a stationary site (a
>chemical spill for instance) and an emergency vehicle that would move back
>and forth at and through the site, at up to 70 mph, broadcasting an alert,
>voice and tone message.

And what makes you think anyone is going to be listening on AM. I
think the vast majority of radio listenings in urban areas listen to
FM except possibly for drive time shows, 24 hour news stations and the
comparatively few people enamored of talk or religious radio. FM of
course is subject to the capture effect wherein the strongest signal
prevails to the exclusion of others (at least that is the theory).

AM, particularly at night is subject to strong skywaves.
>
>Reading about LPAM, this looks technically possible but one concern I have
>is antennae size. A fire truck, for instance, could have an antenna mounted
>on its front, and up to 4 feet over the top of its roof, so we might look
>at as much as 20 feet of length. I realize this places us over the 3 meter
>max so one of the ???? is whether LFAM is realistic.
>
>Am I way off base here, can any antennae, fractal or other, or any AM
>antennae technology, be utilized to design an antenna and propagate this
>type of signal?

I think the problem here is not the technology, but a fundamental misconception of what it is you are trying to prove and who is likely to be your audience. At this point you do not need an engineer, you need a sociologist.

W3JT
>
>All comments appreciated.

1630. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 01:36:56 UTC
From: hhc314@yahoo.com
Message-ID: <1128303416.672602.69070@g47g2000cwa.googlegroups.com>
Source record: 69527
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

I agree Bob. "Tunnel Radio" systems have been around for over 20 years, and AFAIK all broadcast on dual IF frequencies covering both am and fm car radios. Here in Boston this type of system is in use in all our tunnels.

Harry C.

1631. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 02:02:13 UTC
From: David <groups@orbitcoms.com>
Message-ID: <Fi00f.5538$U51.2968@news-server.bigpond.net.au>
Source record: 69528

I am still confused on this one.
I see a 1/4 wave radiating element joined to another 1/4 wave radiating element that just happens to also act as a choke to reduce RF on the return braid of the RG174 coax.

The point where they meet is supposed to look like the centre of a 1/2 wave dipole so the impedance must be around the 72 Ohms

If the Sleeve is acting as a choke(Stub) then does it not need a second element as the return (ie is it not acting like a 1/4 length of coax where the tube is the outer braid and the RG174 cable running up the centre outer sheath is the dielectric and the outer braid of the RG174 becomes the inner conductor of the stub)?

If this is correct then the electrical length of the sleeve must be modified by the presence of the RG174 coax outer sheath. The sleeve is sort of performing a dual function.

As it is difficult to cut the tube once soldered in place, I will need to make heaps of these to get the length right. At least if I had a reasonable starting point it would minimize the number of iterations.

The other issue is that I read about cutting lengths for elements and not that even an element in free space is trimmed down by about 3% to account for some "end effect" ? Would this also apply to my sleeve ? If so, then the length may be difficult to get right because if I make allowance for the end effect then the choking effect of the sleeve will not work as well.

I do not want to reinvent the wheel here as these antennae are sold already being sold commercially and I am sure there are numerous people who have successfully made these. Therefore if I can learn from other people's mistakes and success, the starting point is much closer to the solution.

I have a practical application but want to understand also. The requirement is that I have a small antenna that can be built into the end of a RF connector and plug directly onto a radio modem operating in the 915MHz band. The power is 1 Watt max. The design needs to be repeatable and not require trimming at every location (being portable I have no control over where the unit is located), as there is no decent ground plane, I need a unit that does not require radials or large ground plane.
The low radiation angle and no requirement for large ground plane made the J-Pole look like a good contender but it was physically difficult to mount in this application.

After looking around and opening up some commercial units, I noted many used the Choke Sleeve, 1/2 wave dipole antenna.

This is why I am now wanting to understand how these work and have a good starting point for making them. The commercial units used molded construction that was difficult for me to emulate. I have started with RG174 Cable, 5/32 Brass tube all attached to SMA plug and used 1/4" nylon tubing as a radome. It goes together well and looks good but does not perform very well.

Thanks for any further info.

Dave VanHorn wrote:
>>>With the tubing over a coaxial cable though it seems there is Vp related
>>>to the dielectric formed between the sleeve and the outer sheath of the
>>>coax cable but also the Metal has an Er value.
>
>
> From what I understand, the RF will be traveling on the outside of the
> sleeve, and won't "see" the internals at all.
> So, the sleeve ends up as a 1/4 wavelength stub.
>
> Is the diameter of the tubing critical (will it impact adversely
>
>>>on SWR looking into this antenna).
>
>
> It shouldn't be
>
>
>>>The final point would be if I place some ferrite rings across the coax
>>>below the sleeve, will this improve SWR ?
>
>
> Not if the sleeve is doing it's job.
> The sleeve's open end should look like a short at the operating frequency,
> and keep RF off the feedline.
>
>
>
>>>Thanks
>>>
>>>Regards
>>>
>>>David
>>
>>David;
>>
>>That's why they call it the ART of antenna design. First you make the
>>best mathematical calculations you can then you start cutting wire/tubing.
>>Make your lengths slightly longer than the math says then prune the
>>lengths until the antenna works the way you think it should.

>>
>>There are so many variables in antennas that this is the only practical
>>way to make a new one. Once you find your optimal lengths you can make
>>more to the same specs. However remember that just like in housing
>>antenna's depend on three things: location, location, location and have to
>>be custom adjusted for each site.
>>
>>Dave WD9BDZ
>
>
>
>

1632. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 02:28:05 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43409736$0$3760$39cecf19@news.twtelecom.net>
Source record: 69529
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:
> Did we cause you to spend two days googling newsgroups? You could have found
> much better examples, I have been getting after net nazis since the ARPA
> days. Your still a damnyankee liberal twit.

Not everyone north of the moron line is a "llberal yankee twit", so
shove it up your southern idiot ass.

tom
a northern nondemocrat
K0TAR

1633. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 02:40:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1r51k1t8dsujf2k54gdhtivlc1h8gr3qjb@4ax.com>
Source record: 69530

On Mon, 03 Oct 2005 02:02:13 GMT, David <groups@orbitcoms.com> wrote:

>If this is correct then the electrical length of the sleeve must be
>modified by the presence of the RG174 coax outer sheath. The sleeve is
>sort of performing a dual function.

Hi David,

I think I pointed that out already. The effects of this jacket are
variable across many suggestions offered here over the years.

>As it is difficult to cut the tube once soldered in place, I will need
>to make heaps of these to get the length right. At least if I had a
>reasonable starting point it would minimize the number of iterations.

Ah yes, the pain of it all. I mentioned that too. You may as well
grit your teeth and set to it, there is no shortcut to this all.

>The other issue is that I read about cutting lengths for elements and
>not that even an element in free space is trimmed down by about 3% to
>account for some "end effect" ? Would this also apply to my sleeve ? If
>so, then the length may be difficult to get right because if I make
>allowance for the end effect then the choking effect of the sleeve will
>not work as well.

You might want to work this backwards. That is start off with a
successful choke section of the sleeve. Let that dictate what follows
because its isolation will mediate what I describe. If you have any
experience with what is called an Offset Center Fed Dipole, you would
find that it offers a closer match to 50 Ohms. You are using the
dipole as a variable match by finding the 50 Ohm portion along its
full length. This means that the portion above the sleeve's
attachment to the drive point may not be the classic length (and
certainly not accounted by the 3% of the "end effect" - not even
close).

That is neither here nor there because at that point you will have
simultaneously achieved resonance, a match, and isolation; and yet by
no fixed formula pulled out of a hat, nor accredited by an institution
of higher learning.

And, by the way, it isn't going to pull together in the first pass. I
hope you have a stack of tubing, so put on a happy face and get down
to it.

>This is why I am now wanting to understand how these work and have a
>good starting point for making them. The commercial units used molded

>construction that was difficult for me to emulate. I have started with
>RG174 Cable, 5/32 Brass tube all attached to SMA plug and used 1/4"
>nylon tubing as a radome. It goes together well and looks good but does
>not perform very well.

How do you know? It might be doing the best job you could ask of any
design. Your statement requires FAR MORE qualification than a rather
subjective toss-off.

In other words:
1. To what parameters?
2. Compared to what?
3. By what measure?

73's
Richard Clark, KB7QHC

1634. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 03:14:52 UTC
From: David <groups@orbitcoms.com>
Message-ID: <Mm10f.5577$U51.2350@news-server.bigpond.net.au>
Source record: 69531

Richard,

With regard to performance.

Doing an A/B comparison between the commercial antenna and my version. The range achieved by the commercial antenna was approximately 4 times the range of my version.
The range was determined by loss of using one end as a beacon and moving the test unit further away until it could no longer receive valid packets, then move in and out of range several times to confirm consistency. The same was done with my version.

Before the test, I monitored the return port on the directional coupler on a Spectrum analyzer while seeping frequency from the sig. gen and noted the SWR on the commercial unit was lower than my version. (Though the measurement was not calibrated I could see the SWR was better but did not determine how much).

Previously I designed a Microwave movement detector that operated at 1.2 GHz using Doppler principle. It used a microstrip tank circuit connected to a negative resistance oscillator. The design was published (RF Design magazine Dec 1986).
Though there were many technical issues regarding the oscillator (how to adjust impedance in the base for optimal negative resistance looking into emitter, effect of moving the antenna, ground plane under the antenna etc etc), others were able to make the design just as per my prototype and it worked. They could then proceed to"play" with the design to change its performance.

I really would have expected that a similar scenario would exist with antenna design (Someone has made one just like what I am wanting to make and is able to share with me the details on what they did that worked, then I would play with the design).

I am grateful for the many responses I have received from my postings to this group and am confident there is much good information in what I have received but mixed with people's actual experience is a bunch of theoretical information that makes it hard to pick out what is useful. (ie. some of the information has conflicted and left me not understanding what is actually happening here).

If someone has actually made these types of antennas and has some practical experience with them, that would be a fantastic starting point for me. (ie. Low power, UHF, portable).

Richard Clark wrote:
> On Mon, 03 Oct 2005 02:02:13 GMT, David <groups@orbitcoms.com> wrote:

>
>
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> variable across many suggestions offered here over the years.
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> grit your teeth and set to it, there is no shortcut to this all.
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> full length. This means that the portion above the sleeve's
> attachment to the drive point may not be the classic length (and
> certainly not accounted by the 3% of the "end effect" - not even
> close).
>
> That is neither here nor there because at that point you will have
> simultaneously achieved resonance, a match, and isolation; and yet by
> no fixed formula pulled out of a hat, nor accredited by an institution
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>
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>>nylon tubing as a radome. It goes together well and looks good but does
>>not perform very well.
>
>
> How do you know? It might be doing the best job you could ask of any
> design. Your statement requires FAR MORE qualification than a rather
> subjective toss-off.
>
> In other words:
> 1. To what parameters?
> 2. Compared to what?
> 3. By what measure?
>
> 73's
> Richard Clark, KB7QHC

1635. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 03:26:11 UTC
From: Crazy George <munschNO@SPAMattglobal.net>
Message-ID: <4340a8ca_3@news1.prserv.net>
Source record: 69532
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Well, Ari, I can tell you this. People used to mock the fact that I had 7 antennas on my 1957 station wagon almost 50 years ago, but these days, the airwaves are so bereft of anything worth listening to, I never turn on a radio in the car. So, I will never hear your message no matter what you try.

Now, having said that, here is how the system design needs to be:
Since the frequency to which a target radio is tuned is an unknown, and since the input contains a good trap for the IF frequency, your transmitter needs to radiate about 2 KW ERP at each of three frequencies in the broadcast band separated by 262 kHz and 455 kHz. This will mix in the front end and produce a useful IF. Same technique on FM using two frequencies 10.7 MHz apart.

Good luck on the AM. With expected antenna efficiencies at that wavelength of about 3%, you are going to need over 100 kW of RF and antenna components with equivalent power ratings.

Let us know how it works out. The place I used to work no bid this about 20 years ago due to these problems, and that was not the first time this crazy idea surfaced.

--
Crazy George
"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:r7evtegkcjgt.kuwb55vmxpjg$.dlg@40tude.net...
> Crossposted to:
>
>
rec.radio.amateur.antenna,rec.radio.amateur.misc,rec,radio.amateur.equipment
>
> Novitiate here:
>
> I am learning AM broadcast basics in particular the issues regarding the
> geo-targeted broadcasting of alert messages from moving vehicles. Would
> most appreciate any assistance.
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> Due to Katrina/Rita, the company I work for has been given the opportunity
> to demonstrate a messaging system that would reach out approximately 1
mile
> +/- in transmission deliverance. This would be an "overbroadcast" (my
term)
> in that it would override local AM radio broadcasting to reach into cars,
> trucks etc. In particular, we are working with a stationary site (a

> chemical spill for instance) and an emergency vehicle that would move back
> and forth at and through the site, at up to 70 mph, broadcasting an alert,
> voice and tone message.
>
> Reading about LPAM, this looks technically possible but one concern I have
> is antennae size. A fire truck, for instance, could have an antenna
mounted
> on its front, and up to 4 feet over the top of its roof, so we might look
> at as much as 20 feet of length. I realize this places us over the 3 meter
> max so one of the ???? is whether LFAM is realistic.
>
> Am I way off base here, can any antennae, fractal or other, or any AM
> antennae technology, be utilized to design an antenna and propagate this
> type of signal?
>
> All comments appreciated.
> --
> Drop the alphabet for email

1636. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 03:56:24 UTC
From: kashe@sonic.net
Message-ID: <ota1k1tu7uansgteniugk28qs6jhe9eiet@4ax.com>
Source record: 69533
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Thu, 29 Sep 2005 17:17:15 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 29 Sep 2005 23:26:21 GMT, kashe@sonic.net wrote:
>
>> I'm not hearing any interest in turning streets near me into
>>canals.
>
>In Santa Rosa? Perhaps if the Russian River overflowed - a lot.

ISP location != subscriber location. One subscriber is in New
Zealand.

1637. Re: Miracle Whip Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 03:59:01 UTC
From: kashe@sonic.net
Message-ID: <k2b1k1h31ifiko15ibknet6onrfoedlbp1@4ax.com>
Source record: 69534

On Fri, 30 Sep 2005 11:12:32 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>1. Never eat at a place called Moms.
>2. Never buy an antenna that has the word "Miracle" in the name or
>description.

Especially if it matches the name of a sandwich spread.

1638. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 04:02:15 UTC
From: richardharrison@webtv.net
Message-ID: <16583-4340AD47-680@storefull-3252.bay.webtv.net>
Source record: 69536

Ari wrote:
"--amessaging system that would reach out approximately 1 mile--."

You don`t need a radio tire truck. You need a SOUND TRUCK with an AIR HORN to get the audience`s attention to listen to the message.

Best regards, Richard Harrison, KB5WZI

1639. Re: Bad News for Hams?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 04:04:59 UTC
From: kashe@sonic.net
Message-ID: <36b1k1lvl1bqelr2pn7bfnbsuf03gakvdv@4ax.com>
Source record: 69535

On Fri, 30 Sep 2005 19:24:45 -0500, Tom Ring <news0002@taring.org>
wrote:

>Bob Miller wrote:
>
>>
>> It's not quite shortwave, but National Public Radio plays BBC
>> programming from about midnight to 5 a.m. (at least my local station
>> does)
>>
>> Bob
>> k5qwg
>>
>
>Great. Fine programming when no one can listen to it surrounded by tripe.

Tripe is in the mind of the beholder. In tthis case, tripe is
100% of the mind content.

I guess it's too complicated for him to hook up a VCR to a
radio's audio out jacks.

>
>"I'll just go out back and shoot myself". Name the famous BBC Radio
>Play that's from.

I don't know, but it sounds like the poster who wouldn't look
on the internet if he couldn't get BBC OTA. Pass the nose scalpel.

>
>tom
>K0TAR

1640. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 04:21:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <plb1k154i45g69g6q191nc2q809edh9b4e@4ax.com>
Source record: 69537

On Mon, 03 Oct 2005 03:14:52 GMT, David <groups@orbitcoms.com> wrote:

>Doing an A/B comparison between the commercial antenna and my version.
>The range achieved by the commercial antenna was approximately 4 times
>the range of my version.
>The range was determined by loss of using one end as a beacon and moving
>the test unit further away until it could no longer receive valid
>packets, then move in and out of range several times to confirm
>consistency. The same was done with my version.

Hi David,

This suggests your problems are indeed very profound. A 4 times range
difference would suggest a massive mismatch.

>Before the test, I monitored the return port on the directional coupler
>on a Spectrum analyzer while seeping frequency from the sig. gen and
>noted the SWR on the commercial unit was lower than my version. (Though
>the measurement was not calibrated I could see the SWR was better but
>did not determine how much).

Then I would bet that your system topology is to blame. That is, your
line from the coupler and test equipment to the antenna is not
normalized out of the measurement as a network analyzer would do. And
when you shift from measurement to application, your line length
shifts such that your test match goes to hell. This implicates the
isolation of the sleeve - which is already in serious jeopardy by many
variables anyway. Your test scenario does not reveal the efficacy of
this isolation, it simply affirms that using the spectrum analyzer
establishes a suitable, but serendipitous arrangement.

You might add ferrite beads to the lead going to the antenna/sleeve
and move them along its length to test this hypothesis. This
prophylactic measure is also commonly employed as a necessary adjunct
to design.

73's
Richard Clark, KB7QHC

1641. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 04:26:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dgc1k11gncpus4g0udn1je9d5m709dges9@4ax.com>
Source record: 69538
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 03 Oct 2005 03:56:24 GMT, kashe@sonic.net wrote:

> ISP location != subscriber location. One subscriber is in New
>Zealand.

Trying to convince us you pay trans-oceanic toll charges for a modem
hookup? And being in New Zealand has you/them/whomever offering:
>>> I'm not hearing any interest in turning streets near me into
>>>canals.

Yeh - sure.

1642. Re: Help with Sleeve Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 05:32:08 UTC
From: richardharrison@webtv.net
Message-ID: <13319-4340C258-799@storefull-3255.bay.webtv.net>
Source record: 69539

David wrote:
"I am a little confused with calculation of appropriate length of metal tubing used in a sleeve antenna design (the 1/4 wave section)."

It should approximate the free-space 1/4-wave valie. The coax exterior, or the cylinder exterior,,= is the radiator, so interior velocity factor is not involved.

See the 3rd edition of Kraus` "Antennas", page 721 There are many other texts that may have better construction information, but everyone should have the Kraus book, or go get it now. "Transmission Lines, Antennas, and Wave Guides" by King, Mimno, and Wing is very good for sleeves as I recall, but I don`t have it at hand at the moment.

The commercial and homemade versions I have used had (2) 1/4-wave secrions. The antenna was actually a center-fed vertical 1/2-wave dipole in which the coax was fed through the lower tubular section. The top section was just a rod or wire.

These worked as well as ground plane =antennas, so we used them at VHF on small boats since there were no radials to get in the way or poke anyone in the eye.

The cylinder is slightly shorter than the rod at a 1/4-wave resonant length. You can experiment to find the resonant lengths, then put them back to back to make your 1/2-wave dipole.

Best regards, Richard Harrison, KB5WZI

1643. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 06:49:12 UTC
From: kashe@sonic.net
Message-ID: <21l1k1hnpavq6i288c3tg759poutp5b4mk@4ax.com>
Source record: 69540
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 30 Sep 2005 00:22:56 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Thu, 29 Sep 2005 23:56:14 GMT, kashe@sonic.net wrote:
>
>
>> Mommy and Daddy have been dead since 95 and 61, respectively.
>>
>> If you think you're important enough that I should leap to the
>>keyboard daily, you're sadly mistaken. I may only look in once a week.
>>Live with it.
>>
>> So, you're not only full of shit on both counts, you're also
>>wrong.
>>
>> And just how hollow is your life that you have to track my
>>posting delays? Get a hobby.
>
>My, my! I seem to have hit a nerve.

The only thing I've hit is a demonstration of the depths of
your arrogance and stupidity.

1644. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 06:51:22 UTC
From: kashe@sonic.net
Message-ID: <34l1k1h00rlsqgicd6fkg2fi4m490lv31g@4ax.com>
Source record: 69541
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 30 Sep 2005 19:09:56 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>kashe@sonic.net wrote:
>> On Thu, 29 Sep 2005 02:54:34 GMT, "Tom Donaly"
>> <dtdonaly@sbcglobal.net> wrote:
>>
>>
>>>kashe@sonic.net wrote:
>>>
>>>>Tom Donaly wrote:
>>>>
>>>>
>>>>>Faith and works are, like voltage and current, inextricably intertwined.
>>>>
>>>>
>>>> They are not.
>>>>
>>>>
>>>>
>>>>>The proof of faith is the good work. Those who do no good have no faith.
>>>>
>>>>
>>>> Your logic book get lost in the hurricane? Come back when you
>>>>can name the logical fallacy you just committed.
>>>
>>>Some of the lower forms of American Christianity try to separate faith
>>>and works. That allows them salvation without substance, the lazy man's
>>>path to life without end.
>>
>>
>> in your narrow view.
>>
>>
>>> My last two sentences are statements of truth
>>
>>
>> "I fear the man who has all the answers." -- Father James
>> Marien, S.J. -- 1961 -- in my presence.
>>
>>
>>>, not a logical
>>>progression.

>>
>>
>> As written, they beg to be read as an incomplete syllogism.
>
>In other words, you made the connection up in your head. Typical.

Jesus, another liunatic who thinks he knows all about me.
Pompous bastard.

>
>
>>
>>
>>
>>>Each has to be taken alone, by itself. (A religious
>>>fundamentalist insisting on logical consistency constitutes a
>>>pretty good joke.) Let me repeat: Those who do no good have no
>>>faith.
>>
>>
>> Repitition does not include leaving off the first half of the
>> line you wrote. In a humorous logic treatise, your statement would be
>> named "The Proof from Blatant Assertion".
>>
>>
>>>Next time you and your friends are sitting around speaking
>>>in tongues, you should discuss this. Maybe, if you all think real
>>>hard, together, you can puzzle out what it means.
>>
>>
>>
>>>73,
>>>Tom Donaly, KA6RUH
>>
>>
>
>Unable to address the truth of what I wrote, you fantasize an argument
>out of your sophomoric command of medieval logic. That, too, is typical,
>if somewhat pathetic, since your religion is based on unquestioning
>belief, superstition, and a fundamental opposition to science and
>inquiring thought. Give it up. No brain can justify the brainless.

Considering your lastname, I can take a stab at what your
religin was before you lost it.

>73,
>Tom Donaly, KA6RUH

1645. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 06:53:32 UTC
From: kashe@sonic.net
Message-ID: <eal1k1p93b13fv7olg0jkqgpb4qv9dnrqv@4ax.com>
Source record: 69542
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Fri, 30 Sep 2005 00:22:56 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Thu, 29 Sep 2005 23:56:14 GMT, kashe@sonic.net wrote:
>
>
>> Mommy and Daddy have been dead since 95 and 61, respectively.
>>
>> If you think you're important enough that I should leap to the
>>keyboard daily, you're sadly mistaken. I may only look in once a week.
>>Live with it.
>>
>> So, you're not only full of shit on both counts, you're also
>>wrong.
>>
>> And just how hollow is your life that you have to track my
>>posting delays? Get a hobby.
>
>My, my! I seem to have hit a nerve.

You couldn't hit your ass with a sword stuck in a toilet.

1646. Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 07:58:47 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <nu4713-hq5.ln1@fimbul.myth>
Source record: 69543

As I understand it,a colinear antenna, is a series of half wave elements, that are phase reversed (if that make sense) from one to the next.

Could you build a colinear of a single long line, bending it outa nd back, at 90deg, every half wave, with the bit sticking out (and back) being a half wave total out and back? would that result in the same effect as a colinear?

something like this.

Feed> __||__||__||__

--
Jim Richardson http://www.eskimo.com/~warlock
Televangelists: The Pro Wrestlers of Religion

1647. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 08:22:17 UTC
From: G L Carter <g.l.carter@ntlworld.com>
Message-ID: <ZS50f.11988$DO.11402@newsfe3-gui.ntli.net>
Source record: 69544

Amen to that Richard.
I also question the wisdom of transmitting RF in a hazardous chemical
spillage area.

GeoffC

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:16583-4340AD47-680@storefull-3252.bay.webtv.net...
> Ari wrote:
> "--amessaging system that would reach out approximately 1 mile--."
>
> You don`t need a radio tire truck. You need a SOUND TRUCK with an AIR
> HORN to get the audience`s attention to listen to the message.
>
> Best regards, Richard Harrison, KB5WZI
>

1648. Re: Antenna for Danish Radio 1062 KHz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 10:50:01 UTC
From: jodleren <sonnich@hot.ee>
Message-ID: <1128336601.381848.176750@z14g2000cwz.googlegroups.com>
Source record: 69545

sorry about that - pressed the wrong button

still does not help me with the antenna

BillJ wrote:
> Sonnich Jensen wrote: 1062 MHz
>
> Then it is 1062 KHz not MHz

1649. Re: Antenna for Danish Radio 1062 KHz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 13:09:23 UTC
From: richardharrison@webtv.net
Message-ID: <13320-43412D83-252@storefull-3255.bay.webtv.net>
Source record: 69546

Sonnich Jenson wrote:
"I`d like to listen to Danish Radio PS, on 1062 Medium wave."

A loop antenna is a good start for better signal to noise in a fixed location.

The 3rd edition of Kraus` "Antennas" says on page 217:
"The radiation efficiency of a multiturn loop or coil antenna can be increased by introducing a ferrite rod into the coil as in Fig 7-18."

My Telefunken Opus table radio has such a tuned horizontal ferrite loop stick to receive vertically polarized waves. Its azimuth is rotatable by a knob on the front panel for best reception.

External loops are available from many sources for use with your radio. If one of these is wired to your antenna terminals, only the position of the external loop need e changed for best reception.

For suppressing mobile noise, consult an expert such as A.A. Ghirardi.

Automobiles now come with fair radio noise suppression, but may have defects. The car`s engine compartment should be a continuous conductive shell which traps noise within. All conductors penetrating this shell must be grounded or they must be bypassed to ground (the car body) with caopacitors.

Your problem is weak signal and powerful noise. Good luck!

Best regards, Richard Harrison, KB5WZI

1650. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 13:19:57 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <15CdnbyDIMnopdzeRVn-iw@comcast.com>
Source record: 69547

Yep!! VArious version of 'Curtains' use the technique. The Sterba
Curtain comes to mind.

Jim Richardson wrote:
> As I understand it,a colinear antenna, is a series of half wave
> elements, that are phase reversed (if that make sense) from one to the
> next.
>
> Could you build a colinear of a single long line, bending it outa nd
> back, at 90deg, every half wave, with the bit sticking out (and back)
> being a half wave total out and back? would that result in the same
> effect as a colinear?
>
> something like this.
>
> Feed> __||__||__||__
>
>
>

1651. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 13:55:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <915cb$43413882$97d558d8$23621@ALLTEL.NET>
Source record: 69548
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Having a reading comprehension problem Tom? Please point to the portion of
the below sentence that says "ALL".

The word "YOUR" is the operable one and has a distinct meaning. You Yankees
are getting like the blacks, looking for any slight, real or imagined, so
you may take umbrage with it...

What exactly is the "it" that I am supposed to use as a suppository?

Fred
A Southern curmudgeon
W4JLE

"Tom Ring" <news0002@taring.org> wrote in message
news:43409736$0$3760$39cecf19@news.twtelecom.net...
> Fred W4JLE wrote:
> > Did we cause you to spend two days googling newsgroups? You could have
found
> > much better examples, I have been getting after net nazis since the ARPA
> > days. Your still a damnyankee liberal twit.
>
> Not everyone north of the moron line is a "llberal yankee twit", so
> shove it up your southern idiot ass.
>
> tom
> a northern nondemocrat
> K0TAR

1652. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 14:11:37 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <qpq713-6fd.ln1@p400bob.personal.cox.net>
Source record: 69551

Yes!

The "there and back" is often seen as phasing coils on mobile UHF verticals. Also the same kind of logic as a colinear J pole (for example) that has the hairpin shaped thing about half way up the radiating section of the antenna.

You can also get colinear effects by using alternate halfwaves of very thick vs very thing elements (eg 25mm pipe and 2mm wire on 144MHz) but as one long "element" rather than bending it back and forth. (Yes the gain is lower for a given length)

Keep in mind that it is prudent to feed in the middle of the antenna, probably at one of the hairpins sections. Its a good place as somewhere along the phasing section the Z will be that of your feedline. If you feed at the end the pattern tends to skew away from the feedpoint.

Cheers Bob VK2YQA

Jim Richardson wrote:
...
>
> something like this.
>
> Feed> __||__||__||__

1653. Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 14:25:47 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <ckr713-tfd.ln1@p400bob.personal.cox.net>
Source record: 69550

Someone asked me how this antenna worked after I had built the Q section from two pieces of 50r coax side by side, using the centre conductors as an open wire feeder equivalent. The shields being joined at each end but nowhere else.. (There should be grounded at the bottom end and at some neutral point at the top - if any)

The antenna is a almost equilateral triangular shaped single quad loop with base/feed about 4 metres off the ground. The "almost" being the horizontal/top section is about 8 metres in length.

Well it works! I dont have enough of a power supply at the moment for doing any extensive on air tests. VSWR was 1.4:1 without much excursion at the band edges. This is what 4NEC2 said it would be. In fact I didnt have to cut it after following the modelled dimensions. It was surprisingly wide band I guess from the higher feed Z (rather than using a single 75r section)

I have only just moved here and there is a lot of noise about at various times of the day. (S7-9) I have heard stations across the US and maybe some Spanish speaking. Waiting for a PSU to arrive so I can try a little harder.

I didnt notice any VSWR changes or a change in feedline radiation (through PC/stereo spkrs etc) by coiling the coax at the base of the Q section. Indeed I did it because I was at risk getting tangled in the coax going to the trash can!

I expect high radiation angles BTW.

Cheers Bob W5/VK2YQA East Texas.

1654. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 14:29:46 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <hkf2k116hn4v0600ll0oq3ukuihdnbqa57@4ax.com>
Source record: 69549

I cannot back it up with numbers but as I recall (with a fixed number
of elements) better results were achieved with a phasing harness. I
have always suspected that the elements closer to the source were
contributing the most. It sounds like a question that might be easily
answered by modeling.

On Mon, 03 Oct 2005 09:19:57 -0400, Amos Keag <A.K01@comcast.net>
wrote:

>Yep!! VArious version of 'Curtains' use the technique. The Sterba
>Curtain comes to mind.
>
>Jim Richardson wrote:
>> As I understand it,a colinear antenna, is a series of half wave
>> elements, that are phase reversed (if that make sense) from one to the
>> next.
>>
>> Could you build a colinear of a single long line, bending it outa nd
>> back, at 90deg, every half wave, with the bit sticking out (and back)
>> being a half wave total out and back? would that result in the same
>> effect as a colinear?
>>
>> something like this.
>>
>> Feed> __||__||__||__
>>
>>
>>

1655. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:23:39 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1h0p718coajoy.1e5zi3aftiw8r.dlg@40tude.net>
Source record: 69552
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 11:59:58 +1300, Ken Taylor wrote:

>> Am I way off base here, can any antennae, fractal or other, or any AM
>> antennae technology, be utilized to design an antenna and propagate this
>> type of signal?
>>
>> All comments appreciated.
>> --
> The things that pop into my mind are why AM rather than FM, which tends to
> be more local, and do you intend to 'over-broadcast' only the local channels
> (how many?) - I assume you intend to make the channel(s) selectable - or the
> entire band to ensure you get everyone?

The issue of selective vs full range broadcasting is a matter that has not
been decided either by client, company or possibility. There are plusses
and minus' to each.

Selective would entail less power but we are being told power of the fire
engine is not an issue.

> Assuming that there is a commercial
> AM broadcast station in the vicinity (what, 10 miles? 20 miles?) you are
> probably going to be flat out getting a mobile rig to ride over it. How do
> you intend to do this?
>
> Cheers.
>
> Ken

lol Good question, Ken. Any suggestions?
--
Drop the alphabet for email

1656. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:28:32 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1on4ycu9vveeu$.1trf1dy8v6m99.dlg@40tude.net>
Source record: 69553
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Sun, 02 Oct 2005 23:42:16 GMT, **THE-RFI-EMI-GUY** wrote:

> A disadvantage I see is that a waiver is going to be required in order
> not to violate FCC rules. In fact, in the state of Florida, interfering
> with broadcast stations is against state law, so another hurdle to be
> overcome.

Yes, the budget is rich with expected legal expenses. Since DHS has become a player in this, we are hopeful that we can get the necessary punch to overcome FCC and statutory issues.

>That being said, for this system to work, you have to blanket
> the entire AM and FM broadcast bands. Even doing so will leave out the
> motorists who use XM or Sirius, the Ipod listeners and those who are
> driving with their cellphones plugged into their ears.

Do we have to blanket or only blanket each locale, that is, the broadcasting stations of each locale?

Not only will we miss those no AM/FM listeners, we will miss those that don't have their radios on. An aggressive, road sign campaign is planned something like " Turn On Your Radio, It Could Save Your Life" type of thing near each incident site.

--
Drop the alphabet for email

1657. Re: Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:42:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhrjgp$9ci$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69554

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:ckr713-tfd.ln1@p400bob.personal.cox.net...
> Someone asked me how this antenna worked after I had built the Q
section
> from two pieces of 50r coax side by side, using the centre
conductors as
> an open wire feeder equivalent. The shields being joined at each end
but
> nowhere else.. (There should be grounded at the bottom end and at
some
> neutral point at the top - if any)
>
> The antenna is a almost equilateral triangular shaped single quad
loop
> with base/feed about 4 metres off the ground. The "almost" being the
> horizontal/top section is about 8 metres in length.
>
> Well it works! I dont have enough of a power supply at the moment
for
> doing any extensive on air tests. VSWR was 1.4:1 without much
excursion
> at the band edges. This is what 4NEC2 said it would be. In fact I
didnt
> have to cut it after following the modelled dimensions. It was
> surprisingly wide band I guess from the higher feed Z (rather than
using
> a single 75r section)
>
> I have only just moved here and there is a lot of noise about at
various
> times of the day. (S7-9) I have heard stations across the US and
maybe
> some Spanish speaking. Waiting for a PSU to arrive so I can try a
little
> harder.
>
> I didnt notice any VSWR changes or a change in feedline radiation
> (through PC/stereo spkrs etc) by coiling the coax at the base of the
Q
> section. Indeed I did it because I was at risk getting tangled in
the
> coax going to the trash can!
>
> I expect high radiation angles BTW.

>
> Cheers Bob W5/VK2YQA East Texas.

==========

Bob, what is the purpose of the coaxial outer conductors which are not
connected to anything.except to each other?

Reg.

1658. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:45:29 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <wie9wy5w5f1h$.h50c1iyic3pf.dlg@40tude.net>
Source record: 69555
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Sun, 02 Oct 2005 19:46:56 -0500, Bob Bob wrote:

> Hi Ari

Thanks for comments, Bob.

> I always wonder whether broadcast at the most common IF frequencies
> would be a viable alternative? (eg 455khz for AM) Legality issues aside
> of course...

I'm missing your point. Please explain.

> This would make frequency selection a little easier to
> engineer. You wouldnt have to divide your power budget into many
> operating frequencies as well. Problem is that you'd need a lot higher
> ERP especially since car mounted radios tend to be better shielded than
> portables. (You'll need to experiment some)

Agreed.

> Since part of your engineering exercise will be to determine what ERP
> you want from the system you are proposing, the size of the antenna only
> needs to be considered in line with the transmitter output power.
> Obviously there will be a useful compromise somewhere that is cost
> effective. You might for example want a 100 watt TX for each frequency
> with a fairly lossy/terminated and loaded antenna. Your first port of
> call will be to determine what the likely highest strength of an AM/FM
> broadcast signal you will need to override, add maybe 20dB to that and
> work out your needed ERP.

Good advice here, will 20db do it?

> You will find lots of texts about the
> inefficiencies of MF antennas mounted on motor vehicles so that will
> give you some numbers to work with. Remember that making the antenna
> wideband will also introduce substantial loss. Note that you cant design
> the system to always work as you'll have situations where the radio
> stations transmitting antenna is right next to then freeqy where the
> event occurred! Decide on some statistical coverage percentage thing etc
> etc...

Yes, we are shooting for max overbroadcasting but the reality is it is a
hit and miss proposition. Even the scenario of geo related obstructions is
a possibility.

> I worked for a concern in Sydney Australia that put in tunnel
> rebroadcast systems in the major underground roadworks in Sydney,

> Melbourne and Perth. Being in a tunnel of course there werent really any
> licensing issues.

Is that peculiar to Aus?

> The system consisted of not only broadcast band (AM &
> FM) receivers but spot VHF/UHF FM receivers and transmitters for police,
> fire etc vehicles. Each broadcast frequency had its own transmitter. It
> was thought to be a better idea than using a wide band TX covering all
> frequencies. AM broadcast was coupled to a very long wire and the rest
> used a terminated leaky coax run.
>
> Cheers Bob W5/VK2YQA

Very nice, congrats on that. Was it Yagi technology or fractal?
--
Drop the alphabet for email

1659. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:46:16 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1nx6q2oe5hqcd.16luh3kexsz0p$.dlg@40tude.net>
Source record: 69556
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On 2 Oct 2005 18:36:56 -0700, hhc314@yahoo.com wrote:

> I agree Bob. "Tunnel Radio" systems have been around for over 20
> years, and AFAIK all broadcast on dual IF frequencies covering both am
> and fm car radios. Here in Boston this type of system is in use in all
> our tunnels.
>
> Harry C.

Harry, is this a "pickup" system for lost signal?
--
Drop the alphabet for email

1660. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:52:49 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1fybqs5xy9vj4$.1qc8f33ae8wvw$.dlg@40tude.net>
Source record: 69557

On Sun, 02 Oct 2005 20:49:50 -0400, J. Teske wrote:

>>Due to Katrina/Rita, the company I work for has been given the opportunity
>>to demonstrate a messaging system that would reach out approximately 1 mile
>>+/- in transmission deliverance. This would be an "overbroadcast" (my term)
>>in that it would override local AM radio broadcasting to reach into cars,
>>trucks etc. In particular, we are working with a stationary site (a
>>chemical spill for instance) and an emergency vehicle that would move back
>>and forth at and through the site, at up to 70 mph, broadcasting an alert,
>>voice and tone message.
>
> And what makes you think anyone is going to be listening on AM. I
> think the vast majority of radio listenings in urban areas listen to
> FM except possibly for drive time shows, 24 hour news stations and the
> comparatively few people enamored of talk or religious radio. FM of
> course is subject to the capture effect wherein the strongest signal
> prevails to the exclusion of others (at least that is the theory).
>
> AM, particularly at night is subject to strong skywaves.

We are making no preference as to AM or FM as in that we will be attempting
to overbroadcast on each. The AM skywave issue is exactly that but the
system need not be perfect, only as perfect as possible.

>>Reading about LPAM, this looks technically possible but one concern I have
>>is antennae size. A fire truck, for instance, could have an antenna mounted
>>on its front, and up to 4 feet over the top of its roof, so we might look
>>at as much as 20 feet of length. I realize this places us over the 3 meter
>>max so one of the ???? is whether LFAM is realistic.

The 3 meter limitation is clearly is a problem here, we haven't modeled a 3
meter yet. I also wonder what, if anything, LFAM gets us in terms of FCC
approvals and state regulations.

>>Am I way off base here, can any antennae, fractal or other, or any AM
>>antennae technology, be utilized to design an antenna and propagate this
>>type of signal?
>
> I think the problem here is not the technology, but a fundamental
> misconception of what it is you are trying to prove and who is likely
> to be your audience. At this point you do not need an engineer, you
> need a sociologist.
>
> W3JT

A sociologist?
--
Drop the alphabet for email

1661. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:56:25 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <2aggpl1hjwc1.1eu407rcntj8g.dlg@40tude.net>
Source record: 69558
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Sun, 2 Oct 2005 22:26:11 -0500, Crazy George wrote:

> Well, Ari, I can tell you this. People used to mock the fact that I had 7
> antennas on my 1957 station wagon almost 50 years ago, but these days, the
> airwaves are so bereft of anything worth listening to, I never turn on a
> radio in the car. So, I will never hear your message no matter what you
> try.

Not even in an obvious disaster situation?

> Now, having said that, here is how the system design needs to be:
> Since the frequency to which a target radio is tuned is an unknown, and
> since the input contains a good trap for the IF frequency, your transmitter
> needs to radiate about 2 KW ERP at each of three frequencies in the
> broadcast band separated by 262 kHz and 455 kHz. This will mix in the front
> end and produce a useful IF. Same technique on FM using two frequencies
> 10.7 MHz apart.

Got it, thanks for the specs.

> Good luck on the AM. With expected antenna efficiencies at that wavelength
> of about 3%, you are going to need over 100 kW of RF and antenna components
> with equivalent power ratings.

Yep, at least, maybe more but power availability off the emergency vehicle
is supposed to be a non-issue, we will see.

> Let us know how it works out. The place I used to work no bid this about 20
> years ago due to these problems, and that was not the first time this crazy
> idea surfaced.

Do you think it is crazy from the standpoint of legal or technical. The
system itself would appear to be much needed.
--
Drop the alphabet for email

1662. Re: 73 Ohms, How do you get it?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:57:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhrkdc$bu7$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69559

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:11736-433D59A7-93@storefull-3253.bay.webtv.net...
> Reg, G4FGQ wrote:
> "When the circumference of the antenna rod is one wavelength, Zo =
0."
>
> Bailey adrees with Reg. I was remiss in not quoting Bailey`s caveat.
The
> formula does not hold for circumferences greater than one-quarter
> wavelength.
>
> Bailey notes that uniform cross section conductors don`t have
ubiform
> impedances throughout their lengths. Zo is inversely proportional to
> capacitance per unit length. Zo is lower at the antenna feedpoint
than
> at its conductors` middles. At the tips or open ends of antennas, Zo
is
> low. This is explained by the concentration of electric force lines
at
> the open end.
>
> Variation of Zo along an antenna need not deter one from finding a
> workable average of surge impedance. Bailey has determined this to
be:
>
> 276 log 1/P, where P=circumference of the conductor in wavelength,
for
> circumferences of less than 1/4-wavelength.
>
> For practical lengths of center-fed dipoles, the feedpoint impedance
is
> determined by combination of incident and reflected waves. Bailey
has
> worked out these for resonant lengths between 1/2 and 5 wavelengths.
I
> posted these long ago. But, for infinite length, Zo must prevail, as
no
> reflection will ever return.
>
> Best regards, Richard Harrison, KB5WZI
>
==========

Bailey, who I assume is a product of our universities, made a wild guess and then worked backwards towards a sensible question. ;o)

Reg.

1663. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:57:50 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <17tegkmvjr1j9.3a5f8ahg3ekq$.dlg@40tude.net>
Source record: 69560

On Sun, 2 Oct 2005 23:02:15 -0500, Richard Harrison wrote:

> Ari wrote:
> "--amessaging system that would reach out approximately 1 mile--."
>
> You don`t need a radio tire truck. You need a SOUND TRUCK with an AIR
> HORN to get the audience`s attention to listen to the message.
>
> Best regards, Richard Harrison, KB5WZI

I have seen these systems and they have failed to do two things.

Be heard in a modern car with loud radio and great insulation and 2) pass
the populace acceptance test.
--
Drop the alphabet for email

1664. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 15:58:35 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <n7l3fao8ga61$.1uolzlbe07zcq$.dlg@40tude.net>
Source record: 69561

On Mon, 03 Oct 2005 08:22:17 GMT, G L Carter wrote:

> Amen to that Richard.
> I also question the wisdom of transmitting RF in a hazardous chemical
> spillage area.
>
> GeoffC

That is not on our side of the table though. How this sytem is ultimately
used is out of our hands.
--
Drop the alphabet for email

1665. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:01:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <94c7c$434155fe$97d558d8$27747@ALLTEL.NET>
Source record: 69562
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

In that case, simply modify the sign to "Tune to 560, it could save your life" and use a discrete frequency low power transmitter.

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message news:1on4ycu9vveeu$.1trf1dy8v6m99.dlg@40tude.net...
> On Sun, 02 Oct 2005 23:42:16 GMT, **THE-RFI-EMI-GUY** wrote:
>
> Not only will we miss those no AM/FM listeners, we will miss those that
> don't have their radios on. An aggressive, road sign campaign is planned
> something like " Turn On Your Radio, It Could Save Your Life" type of thing
> near each incident site.

1666. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:09:41 UTC
From: richardharrison@webtv.net
Message-ID: <11735-434157C5-932@storefull-3253.bay.webtv.net>
Source record: 69563

Jim Richardson wrote:
"Could you build a colinear of a single long line bending it back at 90 deg. every half wave---?"

See the "Super J" in the "ARRL Antenna Book", page 16-25 in my 19th edition. That is more or less how it is made. The two 1/2-waves, in-phase, are end-driven with phase inversion provided by a short-circuited 1/4-wave stub between them.

At frequencies higher than 2-meters, this would work for more than (2) 1/2-wave sections. The practical limitation is mechanical.

Best regards, Richard Harrison, KB5WZI

1667. Re: Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:18:05 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <u62813-qhf.ln1@p400bob.personal.cox.net>
Source record: 69574

Hi Reg

The two pieces of coax are only meant to be a 100 ohm balanced Q section
to translate the antenna Z to close to that of the main feedline (50r).
I could do the same if I had some 100r open/ribbon feedline.

The outer conductors/shield should be at zero potential and as such
preserve the Z between the two inner conductors. This is handy in that
the coaxes dont have to be bound close together and could be fed through
a non metallic conduit without problems.

Have I made any sense?

Cheers Bob

Reg Edwards wrote:

> ==============================
>
> Bob, what is the purpose of the coaxial outer conductors which are not
> connected to anything.except to each other?
> ----
> Reg.
>
>

1668. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:20:40 UTC
From: Dave <noone@nowhere.com>
Message-ID: <QPmdnXdgVpDBx9zeRVn-uA@crocker.com>
Source record: 69564
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

there is no requirement that anyone listen to any broadcast radio. with the rapid growth of satellite radio there are even less people listening to either am of fm broadcast radio. add those who listen to cd's or dvd's and you get even less.

There are systems that are used for local road emergency notification, the 560khz one comes to mind, something along those lines would be the best bet, and add in signs on the backs of vehicles. i guess the real question is, what are you trying to do by overriding local broadcast stations? and over what size area?

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message news:1h0p718coajoy.1e5zi3aftiw8r.dlg@40tude.net...
> On Mon, 3 Oct 2005 11:59:58 +1300, Ken Taylor wrote:
>
>>> Am I way off base here, can any antennae, fractal or other, or any AM
>>> antennae technology, be utilized to design an antenna and propagate this
>>> type of signal?
>>>
>>> All comments appreciated.
>>> --
>> The things that pop into my mind are why AM rather than FM, which tends
>> to
>> be more local, and do you intend to 'over-broadcast' only the local
>> channels
>> (how many?) - I assume you intend to make the channel(s) selectable - or
>> the
>> entire band to ensure you get everyone?
>
> The issue of selective vs full range broadcasting is a matter that has not
> been decided either by client, company or possibility. There are plusses
> and minus' to each.
>
> Selective would entail less power but we are being told power of the fire
> engine is not an issue.
>
>> Assuming that there is a commercial
>> AM broadcast station in the vicinity (what, 10 miles? 20 miles?) you are
>> probably going to be flat out getting a mobile rig to ride over it. How
>> do
>> you intend to do this?
>>
>> Cheers.
>>

>> Ken
>
> lol Good question, Ken. Any suggestions?
> --
> Drop the alphabet for email

1669. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:21:42 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <0YWdnW7_0tgLx9zeRVn-rA@comcast.com>
Source record: 69565
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Fred W4JLE wrote:

> The word "YOUR" is the operable one and has a distinct meaning. You Yankees
> are getting like the blacks, looking for any slight, real or imagined, so
> you may take umbrage with it...

Don't give up yet, Fred, general Lee is bringing the reinforcmenets any
day now...

1670. EXP 14 Hygain Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:39:01 UTC
From: Steven Fritts <w4sef@bellsouth.net>
Message-ID: <min2k1hehg7flr81l9pluefedfjujsfomd@4ax.com>
Source record: 69566

Does anyone have any experience wirth this antenna? I need pros or cons on it as I may be purchasing one soon.

Thanks

Steve W4SEF

1671. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:44:20 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <ftn2k15r32putd9bi60m9gcmlrf8nvnpig@4ax.com>
Source record: 69567

On Mon, 3 Oct 2005 11:52:49 -0400, Ari Silversteinn

>>
>> I think the problem here is not the technology, but a fundamental
>> misconception of what it is you are trying to prove and who is likely
>> to be your audience. At this point you do not need an engineer, you
>> need a sociologist.
>>
>> W3JT
>
>A sociologist?

Yeah, to figure out what has to be done to get the audience to listen
to you. A psychologist might also work.

1672. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:50:35 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <s34813-4jf.ln1@p400bob.personal.cox.net>
Source record: 69573
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Hi Ari

>>I always wonder whether broadcast at the most common IF frequencies
>>would be a viable alternative? (eg 455khz for AM) Legality issues aside
>>of course...
>
>
> I'm missing your point. Please explain.

I apologise if you already know the following! Its pretty basic radio..

Almost every radio receiver on the market works off the "superhetrodyne" principal where the incoming signal is mixed with a local oscillator down to an intermediate frequency. This makes receiver design a little cheaper as you can then put your expensive filtering at one frequency rather than have something that has to track the actual transmitted frequency.

For example a station on the AM band at 870khz is mixed with a local oscillator of 1325 khz (in the receiver) to get a difference of 455khz. If the station frequency is changed then one only needs to modify the local oscillator frequency. This is what the knob on the radio does!

The most common IF frequency for an AM radio happens to be 455khz so transmitting on that will mean you will be heard on all AM radios in close proximity. I dont off hand know the most common broadcast FM IF (maybe 10.7MHz or 7.8Mhz) but that should be easy to find. It is important to make sure that the IF of the fire trucks FM two-way radio isnt the same or you'll never be able to hear it inside the truck!

To "broadcast over" you would need to amplitude modulate the AM band 455khz TX and frequency modulate the FM broadcast IF frequency.

> Good advice here, will 20db do it?

FM is easier to do than AM. I'd factor in maybe 6dB for FM. You might be able to get by with 12dB for AM but the original station will make some small amount of noise under it. The important thing is that the person listening wil be able to understand the content.

Note that this is of course only relevent when transmitting on the actual station frequency.

> Yes, we are shooting for max overbroadcasting but the reality is it is a
> hit and miss proposition. Even the scenario of geo related
obstructions is

> a possibility.

Well it shouldnt be that hard to model. Do a AM and FM band coverage prediction over the freeways etc you are doing the experiment on to discover what the receive strength will be in dBm. (It doesnt matter what "gain" you make the RX antenna because it will be the same figure that is used for your overbroadcast) For every say 200 yard square take the mean signal of each, then take the 80th percentile as the signal you have to beat. If that was (say) -80dBm you want -74dBm (for FM) at the maximum operating distance (was it a mile each way?) You then reverse model that to determine what the TX EIRP of the thing on the truck has to be.

There are bound to be contract houses that will do this prediction for you. I use to work for one that had the software and I have some GPL versions myself. I cant do MF (ie AM broadcast) though.

> Being in a tunnel of course there werent really any
>>licensing issues.

> Is that peculiar to Aus?

The licensing issue or the tunnel? Tunnel rebroadcast is pretty common around the world. The company I worked for also did one in Indonesia. Its also used in underground mines.

> Very nice, congrats on that. Was it Yagi technology or fractal?

Err, the leaky coax was just a 2km run of an Andrews product that has leaky holes in the shield. It was fed in the middle with a wide band splitter and terminated with 50 ohmss at each end. Its quite a common thing to do in underground environments. (Buildings too) Handy for two way radio as well as cell phones.

The AM thing was just a very long terminated (600r) wire.

None of the above are yagi or fractal

Cheers Bob

Ari Silversteinn wrote:
>

1673. The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:55:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhrnpg$m2p$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69568

I see from an Australian newsgroup that somebody is seriously
considering and making plans to cover the whole continent using a pair
of longwave, 1-megawatt, broadcast transmitters.

The antennas are to be Professor Hately's CFA's which perform
according to Maxwell's 4th Equation.

Should somebody break the bad news to them before its too late? Or
should we wait and have a good laugh?

Reg.

1674. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:56:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ftn2k1hq18r5ha890ilm6tr7dh5tdv51f7@4ax.com>
Source record: 69569

On Mon, 3 Oct 2005 11:57:50 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:
>> You don`t need a radio tire truck. You need a SOUND TRUCK with an AIR
>> HORN to get the audience`s attention to listen to the message.
>I have seen these systems and they have failed to do two things.
>Be heard in a modern car with loud radio and great insulation and 2) pass
>the populace acceptance test.

And you've offered this is during an obvious emergency? :
1 Why would they play music loudly in an insulated car when doom is
on their heels?
2 Why would neighbors complain of noise telling them they were about
to be die?

Richard's description adequately suits:
Local - that would reach out approximately 1 mile and "overbroadcast"
to those immediately in danger within a stationary site.

Your objections are more tailored to suit your solution than the
problem.

73's
Richard Clark, KB7QHC

1675. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:58:40 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <qvn2k1tpghdmdl4kc0snbv7eqsnnlkc2il@4ax.com>
Source record: 69570

On Mon, 3 Oct 2005 11:28:32 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:

>On Sun, 02 Oct 2005 23:42:16 GMT, **THE-RFI-EMI-GUY** wrote:
>
>> A disadvantage I see is that a waiver is going to be required in order
>> not to violate FCC rules. In fact, in the state of Florida, interfering
>> with broadcast stations is against state law, so another hurdle to be
>> overcome.
>
>Yes, the budget is rich with expected legal expenses. Since DHS has become
>a player in this, we are hopeful that we can get the necessary punch to
>overcome FCC and statutory issues.
>
>>That being said, for this system to work, you have to blanket
>> the entire AM and FM broadcast bands. Even doing so will leave out the
>> motorists who use XM or Sirius, the Ipod listeners and those who are
>> driving with their cellphones plugged into their ears.
>
>Do we have to blanket or only blanket each locale, that is, the
>broadcasting stations of each locale?
>
>Not only will we miss those no AM/FM listeners, we will miss those that
>don't have their radios on. An aggressive, road sign campaign is planned
>something like " Turn On Your Radio, It Could Save Your Life" type of thing
>near each incident site.

While Florida may have laws to this effect, in fact they are
unenforcable because of federal preemption for all radio matters.
Still illegal, just the wrong enforcement entity. A state or locality
cannot for example legislate on TVI matters (though many have tried.)
When they try, the FCC will send a notice to the locals that they are
in charge and will handle enforcement. Unfortunately the FCC is
unwilling to get involved in the matter of private contracts such as
antenna exclusions in housing developments.

That said, be aware that when it comes to radio useage in the US, the
FCC is actually NOT the ultimate authority. They are responsible only
for those frequencies which a military controlled panel has ceded to
the FCC for administrative purposes. I can't remember the name right
off hand, but during my federal career, I had to work with them and we
actually were able to override an FCC allocation because it interfered
with a military application. While the FCC played ball with the DOD
outfit I worked for, the ultimate beneficiary of that allocation (a TV
station) sued and the matter wound up in Federal Court. The court

reaffirmed the DOD's ultimate sovreignity in this matter. It
ultimately got resolved by some allocation juggling when a combination
of the Court, The FCC and the DOD gave the plaintiff some "religion."

W3JT

1676. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 16:58:46 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <ard0f.17$1e6.0@trnddc07>
Source record: 69571

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:11735-434157C5-932@storefull-3253.bay.webtv.net...
> Jim Richardson wrote:
> "Could you build a colinear of a single long line bending it back at 90
> deg. every half wave---?"
>
> See the "Super J" in the "ARRL Antenna Book", page 16-25 in my 19th
> edition. That is more or less how it is made. The two 1/2-waves,
> in-phase, are end-driven with phase inversion provided by a
> short-circuited 1/4-wave stub between them.
>
> At frequencies higher than 2-meters, this would work for more than (2)
> 1/2-wave sections. The practical limitation is mechanical.
>
> Best regards, Richard Harrison, KB5WZI

Hi Richard

About 45 years ago, I designed a vertical collinear array of dipoles for
1.7 GHz (actually 1,700 Megacycles then). That antenna was a series 1/2
wave sleaves located below a coaxial dipole. The nice aspect was the
simplicty of its feed. The "beam squint got fairly great since there were
alot of passively excited 1/2 wave elements
I had capability of measuring the radiation patterns from the antenna, so
I can assure that the concept you propose will work.

Jerry

1677. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 17:05:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3po2k11ti506b359m27i8np3cun993i26u@4ax.com>
Source record: 69572
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Sun, 2 Oct 2005 18:29:13 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:

>Reading about LPAM, this looks technically possible but one concern I have
>is antennae size. A fire truck, for instance, could have an antenna mounted
>on its front, and up to 4 feet over the top of its roof, so we might look
>at as much as 20 feet of length. I realize this places us over the 3 meter
>max so one of the ???? is whether LFAM is realistic.

Hi Ari,

As you have described it, and have seen the discussion in regard to
the need for ERP - you are so deep in the debit column with AM power
EQUAL to a local broadcaster, that to climb out of that hole would be
prohibitive. READ: no fire truck has a power plant sufficient to
cover both the antenna system losses AND "overbroadcast" as you
desire. And this is for ONE station only. Imagine your broader
mandate to "overbroadcast" all local stations and that hole just gets
deeper.

>Am I way off base here, can any antennae, fractal or other, or any AM
>antennae technology, be utilized to design an antenna and propagate this
>type of signal?

With such a plea, to the savvy it reveals you are in over your head.

73's
Richard Clark, KB7QHC

1678. Re: EXP 14 Hygain Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 17:11:43 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e17c7$43416683$97d558d8$7114@ALLTEL.NET>
Source record: 69575

Go to EHam.com and check the reviews.

"Steven Fritts" <w4sef@bellsouth.net> wrote in message
news:min2k1hehg7flr81l9pluefedfjujsfomd@4ax.com...
> Does anyone have any experience wirth this antenna? I need pros or
> cons on it as I may be purchasing one soon.
>
> Thanks
>
> Steve W4SEF

1679. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 17:27:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g8p2k1do1sgpul85nnsvbjea9ju0pgqbjb@4ax.com>
Source record: 69426
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 11:28:32 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:

>Yes, the budget is rich with expected legal expenses. Since DHS has become
>a player in this, we are hopeful that we can get the necessary punch to
>overcome FCC and statutory issues.

Hi Ari,

The various pieces of this jigsaw puzzle is beginning to reveal a
picture here. With the introduction of two governmental
organizations, and their regulations, your "plan" has all the
appearances of being suitably crafted to work on paper. It responds
to the individual issues that any squinty-eyed bureaucrat would demand
be satisfied for his postage sized turf, but in the overall it would
fail miserably, or drive costs so high as to be tainted with the plea
that "aren't people's lives worth the price?"

Let's see, the original spec calls for a disaster situation that is
confined to within 1 mile; that demands the local population be
informed; that over-rides their usual paths of communication; that
reaches them even when they are not engaged in listening.

As already pointed out, big sound trucks do wonders, and have worked
well since the beginning of the last century for this purpose. That
kids inside their home can hear the ice-cream truck a mile away is a
testimony to this simplicity.

Knocking on the door of the local broadcasters and commandeering their
air-time has a time honored tradition of working quite well too. This
involves no more time than getting that expensive mobile power plant
rigged with wide band transmitters working into hugely lossy antenna
systems into the same danger area. After-all, you could as easily
call the first most obvious radio station as them, and you could be
calling the others before they even got on the road.

The solution demanded is that all radio stations respond to a disaster
network alert and citizens tune to the Civil Defense frequency when so
warned by them. Is this another administration cut-back that was
shelved as one of those unnecessary "entitlements?" Have they clipped
all the wires to those old Air Raid sirens? When did the lights go
out in FEMA?

73's
Richard Clark, KB7QHC

1680. Re: EXP 14 Hygain Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 17:39:19 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <29e9c$43416cfb$97d558d8$11616@ALLTEL.NET>
Source record: 69427

Whoops! That should have been Eham.net

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:e17c7$43416683$97d558d8$7114@ALLTEL.NET...
> Go to EHam.com and check the reviews.
>
> "Steven Fritts" <w4sef@bellsouth.net> wrote in message
> news:min2k1hehg7flr81l9pluefedfjujsfomd@4ax.com...
> > Does anyone have any experience wirth this antenna? I need pros or
> > cons on it as I may be purchasing one soon.
> >
> > Thanks
> >
> > Steve W4SEF
>
>

1681. Re: The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 17:56:30 UTC
From: pfriedmanNoSpam <p.paulfriedmanNoSpam@comcast.net>
Message-ID: <Z4adnT9cKa9Q7dzeRVn-3w@comcast.com>
Source record: 69428

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dhrnpg$m2p$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>I see from an Australian newsgroup that somebody is seriously
> considering and making plans to cover the whole continent using a pair
> of longwave, 1-megawatt, broadcast transmitters.
>
> The antennas are to be Professor Hately's CFA's which perform
> according to Maxwell's 4th Equation.
>
> Should somebody break the bad news to them before its too late? Or
> should we wait and have a good laugh?
> ----
> Reg.
>
>

Neither. We should sell them the New & Improved version which performs
according to Beethoven's 5th. Or maybe a 5th of a good Highland malt?

Paul AB0SI

1682. Re: Tables of Er for various metal tubes ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:06:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhrs03$566$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69429

"David" <groups@orbitcoms.com> wrote in message
news:A1R%e.5171$U51.541@news-server.bigpond.net.au...
> OK, so the electrical wavelength of the tube will only be effected
by
> the dielectric material and it does not make any difference how
large
> the gap is between the Sleeve and the Coax ?
>
> The frequency of operation is 920 MHz.
>
> Do you happen to know what the covering is made of on the outer
sheath
> of RG174 ?
==========

The jacket of coaxial cable is usually a soft grade of
poly-vynil-chloride, PVC, which can have a dielectric constant
anywhere between 4 and 6.

The velocity factor along the outside of the coaxial braid depends on
the thickness of the jacket. To make much difference to the VF it has
to be an inch thick or more whereas it is probably only about 0.6mm.

I will have a guess and say the VF is about 0.95. You can forget
about it.

Reg.

1683. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:16:39 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1128363399.790375.212790@g14g2000cwa.googlegroups.com>
Source record: 69430

Jerry Martes wrote:
> "Brian Kelly" <kelly@dvol.com> wrote in message

. . . .

> Brian
>
> Have you considered building your own coax relays? It is fairly easy to
> construct a SPST coax relay with glass enclosed tube shaped reed relays.
> Their performance may be acceptable to you, maybe not.

I don't worry much about coax feedline impedance bumps at HF
frequencies.

> But I have built my
> own coax relays from regular relays and have gotten adequate performance.

I've done that a number of times with $5 Potter & Brumfield open frame
relays and never had a problem. In 50 ohm circuits. My big concern is
switching HF kilovolts with $5 relays which is a whole different
problem.

Tnx

>
> Jerry

w3rv

1684. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:19:05 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1128363545.419624.225460@g14g2000cwa.googlegroups.com>
Source record: 69431

Cecil Moore wrote:
> Brian Kelly wrote:
> > I know I can use surplus vacuum relays but at $35-40 a pop that ain't
> > gonna happen.
>
> Hi Brian, the Omron LY series seem to handle 100w for me.
> Perhaps you can contact Omron about their limits.

OhYeah, that's what I've been looking for. Tnx Cecil! I Googled 'em and landed on the Mouser web page which lists the Omron LYs. They're good for 10-15 amps @ 2 kV AC and for only $6-7 each. Should work fine although I'd like to have higher voltage ratings. Not much to lose by trying a couple of them to find out if they arc in the 110% humidity we occasionally get around here.

> --
> 73, Cecil http://www.qsl.net/w5dxp

w3rv

1685. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:24:25 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhrt0q$276$1@news.service.uci.edu>
Source record: 69433

Cecil Moore wrote:

> Steady-state DC is incapable of generating coherent photons from an
> antenna.

At last a truism, arguably. ;-)

ac6xg

1686. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:28:02 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <90u2k11tr23up7rc7nfcgjufergc2efe62@4ax.com>
Source record: 69435
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 03 Oct 2005 06:53:32 GMT, kashe@sonic.net wrote:

>>> And just how hollow is your life that you have to track my
>>>posting delays? Get a hobby.
>>
>>My, my! I seem to have hit a nerve.
>
> You couldn't hit your ass with a sword stuck in a toilet.

Isn't it past your bedtime?

1687. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:29:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <WLe0f.9132$6e1.1754@newssvr14.news.prodigy.com>
Source record: 69432

Brian Kelly wrote:
> OhYeah, that's what I've been looking for. Tnx Cecil! I Googled 'em and
> landed on the Mouser web page which lists the Omron LYs. They're good
> for 10-15 amps @ 2 kV AC and for only $6-7 each. Should work fine
> although I'd like to have higher voltage ratings. Not much to lose by
> trying a couple of them to find out if they arc in the 110% humidity we
> occasionally get around here.

The LYs are designed to minimize humidity problems. The
air gap is replaced by some sort of plastic separator.
--
73, Cecil, http://www.qsl.net/w5dxp

1688. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:30:55 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <i2u2k19u474566u3cbbf41r2e3bujrf3om@4ax.com>
Source record: 69436
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 03 Oct 2005 06:51:22 GMT, kashe@sonic.net wrote:

>>> As written, they beg to be read as an incomplete syllogism.
>>
>>In other words, you made the connection up in your head. Typical.
>
> Jesus, another liunatic who thinks he knows all about me.
>Pompous bastard.

Mr. Pot, meet Mr. Kettle...

1689. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:37:49 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndk2ujt.2hl3.ben@saturn.home.ben.com>
Source record: 69434
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On 2005-10-02, Ari Silversteinn <abcarisilverstein@yahoo.comxyz> wrote:
> This would be an "overbroadcast" (my term)
> in that it would override local AM radio broadcasting to reach into cars,

My experience with AM (on the aircraft band) is that two transmitters
at the same time yields a horrible squeal and nothing else. The louder
station (usually on the ground with hundreds of watts) has no particular
advantage over the other station (usually in the air with 5-10 watts).
In other words, there is no effect like FM capture.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

1690. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:49:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <j3f0f.9140$6e1.6592@newssvr14.news.prodigy.com>
Source record: 69437

Jim Kelley wrote:

> Cecil Moore wrote:
>> Steady-state DC is incapable of generating coherent photons from an
>> antenna.
>
> At last a truism, arguably. ;-)

Say Jim, what is the frequency of virtual photons?
--
73, Cecil, http://www.qsl.net/w5dxp

1691. Re: The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 18:49:56 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <k3b813-6pf.ln1@p400bob.personal.cox.net>
Source record: 69440

Well if you must know, CFA stands for "Country Fire Authority", the (old name) volunteer firefighters in the state of Victoria...

You confused yet? <grin>

Bob VK2YQA (in W5)

pfriedmanNoSpam wrote:
> Neither. We should sell them the New & Improved version which performs
> according to Beethoven's 5th. Or maybe a 5th of a good Highland malt?
>
> Paul AB0SI
>
>

1692. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:06:17 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <92c813-088.ln1@fimbul.myth>
Source record: 69438

On Mon, 03 Oct 2005 09:11:37 -0500,
Bob Bob <bob3bob3@cox.net> wrote:
> Yes!
>
> The "there and back" is often seen as phasing coils on mobile UHF
> verticals. Also the same kind of logic as a colinear J pole (for
> example) that has the hairpin shaped thing about half way up the
> radiating section of the antenna.
>
> You can also get colinear effects by using alternate halfwaves of very
> thick vs very thing elements (eg 25mm pipe and 2mm wire on 144MHz) but
> as one long "element" rather than bending it back and forth. (Yes the
> gain is lower for a given length)
>
> Keep in mind that it is prudent to feed in the middle of the antenna,
> probably at one of the hairpins sections. Its a good place as somewhere
> along the phasing section the Z will be that of your feedline. If you
> feed at the end the pattern tends to skew away from the feedpoint.
>
> Cheers Bob VK2YQA
>
> Jim Richardson wrote:
> ...
>>
>> something like this.
>>
>> Feed> __||__||__||__

Very enlightening responces, thanks all. I have access to a nice HP
vector NA at work, and plan on building a couple of VHF antennas for the
boat (marine band, so centered around 159MHz). The colinear was one I
was considering, "just because". Primary is going to be a copper pipe
j-pole.

--
Jim Richardson http://www.eskimo.com/~warlock
I have plenty of talent and vision. I just don't give a
damn.

1693. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:08:05 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <l5c813-088.ln1@fimbul.myth>
Source record: 69439

On Mon, 3 Oct 2005 11:09:41 -0500,
Richard Harrison <richardharrison@webtv.net> wrote:
> Jim Richardson wrote:
> "Could you build a colinear of a single long line bending it back at 90
> deg. every half wave---?"
>
> See the "Super J" in the "ARRL Antenna Book", page 16-25 in my 19th
> edition. That is more or less how it is made. The two 1/2-waves,
> in-phase, are end-driven with phase inversion provided by a
> short-circuited 1/4-wave stub between them.
>

I just picked up the ARRL book, it's a daunting tome... but interesting
reading.

> At frequencies higher than 2-meters, this would work for more than (2)
> 1/2-wave sections. The practical limitation is mechanical.

Makes sense, thanks.

>
> Best regards, Richard Harrison, KB5WZI
>

One of these days, hopefully in the near future, I'll get off my ass and
take the ham test. Time.. always about time.

--
Jim Richardson http://www.eskimo.com/~warlock
Unix has security which has been tested by conniving, unscrupulous
college students over generations.

1694. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:19:44 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1128367184.874359.235810@g49g2000cwa.googlegroups.com>
Source record: 69441

Ian White G/GM3SEK wrote:
> Brian Kelly wrote:

. . . .

> >I need some sort of relays which can handle 2kV of HF RF at 2 amps.
> >Single pole NO non-latching reed switches would do the job.
> >
> >I know I can use surplus vacuum relays but at $35-40 a pop that ain't
> >gonna happen.
> >
> >Any and all suggestions will be appreciated.
>
> By coincidence, I was reading an electronics mag over breakfast today,
> and saw this press release:
>
> "Crydom has launched a high performance miniature reed relay boosting
> carry currents by 33%. Fitting a full electrostatic copper screen that
> completely enshrouds the relay coil, a reduction in power loss is
> achieved. Lower loss means lower self heating - enabling an increase
> in carry currents to an industry leading 4A RMS at 30MHz from the
> miniature 30mm x 10mm package.
>
> "The 6 Series is designed for next generation HF antenna couplers and
> filter circuits where improved RF performance and higher packing
> densities are required.
>
> "The hermetically sealed high vacuum reed switch will isolate 3kV
> minimum (DC or RF peak) making it suitable for a range of Test Equipment
> and Electromedical applications where high voltage, high current pulses
> are generated."

They sound like they'd definitely do the job but so far I can't find a
U.S. source for them.

> Without necessarily endorsing that particular product, there are a few
> interesting points:
>
> * Switching in HF antenna couplers and filters is now a recognized
> market.

> * Reed relays can handle this kind of service.

Exactly. They're showing up everywhere in recently-designed ham
equipment - to the 2kW level and beyond. Big amps, big autotuners, etc.

In prior times the coax could be remotely switched but the only relays which could handle high RF voltages were pricey vacuum relays. It's the recent advent of these inexpensive new type reed relays which led me to reconsider using end-fed half-wave verticals.

> * Coupling into the coil can be a problem, which may suggest making your
> own. Crydom use a shielded coil, and an alternative idea ISTR is to wrap
> the glass relay tube in foil instead of the coil. (In both cases the
> shielding would need to be overlapping but non-shorting.) Which is the
> better would depend on the application, and how much shunt capacitance
> it can tolerate.

I don't understand the shielding/loss problem. I wouldn't be using these relays inside equipment where shielding as such might matter. How how significant are these losses? I'm switching the bottom ends of more or less resonant wires from wire to wire and from tuner to tuner in some arramgement or another TBD. All of it out the yard where I hope I radiate as much RF as possible.

> More details and a data sheet at:
> http://www.crydom.co.uk/Webpages/archive-new_fully_screened_rf_relay.htm

Nice specs, I'll continue the hunt for a source.

> --
> 73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

Thanks Ian.

w3rv

1695. Re: Need Suggestions for a Relay Source

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:24:41 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1128367481.668246.56000@z14g2000cwz.googlegroups.com>
Source record: 69442

Cecil Moore wrote:
> Brian Kelly wrote:
> > OhYeah, that's what I've been looking for. Tnx Cecil! I Googled 'em and
> > landed on the Mouser web page which lists the Omron LYs. They're good
> > for 10-15 amps @ 2 kV AC and for only $6-7 each. Should work fine
> > although I'd like to have higher voltage ratings. Not much to lose by
> > trying a couple of them to find out if they arc in the 110% humidity we
> > occasionally get around here.
>
> The LYs are designed to minimize humidity problems. The
> air gap is replaced by some sort of plastic separator.

Neat. Even if they do arc the barrier could always be replaced with a
bigger and better homebrewed barrier. Off to the relay store and pass
the epoxy . .

> --
> 73, Cecil, http://www.qsl.net/w5dxp

w3rv

1696. Re: The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:26:03 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <434185E7.CAC05318@shaw.ca>
Source record: 69443

Reg Edwards wrote:
>
> I see from an Australian newsgroup that somebody is seriously
> considering and making plans to cover the whole continent using a pair
> of longwave, 1-megawatt, broadcast transmitters.
>
> The antennas are to be Professor Hately's CFA's which perform
> according to Maxwell's 4th Equation.
>
> Should somebody break the bad news to them before its too late? Or
> should we wait and have a good laugh?
> ----
> Reg.

Perhaps it will perform better upside-down!

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1697. Re: The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:34:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <rtudndDlOZhEGtzeRVn-iA@crocker.com>
Source record: 69444

a megawatt?!?! i want to be there (at a safe distance) when they fire that mother up just to watch the light show, should be exciting! and i thought it was maxwell's 5th equation they relied on?

"Irv Finkleman" <finkirv@shaw.ca> wrote in message news:434185E7.CAC05318@shaw.ca...
> Reg Edwards wrote:
>>
>> I see from an Australian newsgroup that somebody is seriously
>> considering and making plans to cover the whole continent using a pair
>> of longwave, 1-megawatt, broadcast transmitters.
>>
>> The antennas are to be Professor Hately's CFA's which perform
>> according to Maxwell's 4th Equation.
>>
>> Should somebody break the bad news to them before its too late? Or
>> should we wait and have a good laugh?
>> ----
>> Reg.
>
> Perhaps it will perform better upside-down!
>
> Irv VE6BP
> --
> ---------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ---------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

1698. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:54:56 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <c9gqhrx7nggh$.1hmwsp16r4gsh.dlg@40tude.net>
Source record: 69445
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 12:01:14 -0400, Fred W4JLE wrote:

> In that case, simply modify the sign to "Tune to 560, it could save your
> life" and use a discrete frequency low power transmitter.

I assume you mean to take up an unused local channel? Or to bargain for
time on a used one?

Both ideas make sense.
--
Drop the alphabet for email

1699. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 19:59:57 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <mi3hi7ng5xs6.hifhkdyo3ban.dlg@40tude.net>
Source record: 69446
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 16:20:40 -0000, Dave wrote:

> there is no requirement that anyone listen to any broadcast radio. with the
> rapid growth of satellite radio there are even less people listening to
> either am of fm broadcast radio. add those who listen to cd's or dvd's and
> you get even less.

The loss of listenership is not arguable.

> There are systems that are used for local road emergency notification, the
> 560khz one comes to mind, something along those lines would be the best bet,
> and add in signs on the backs of vehicles. i guess the real question is,
> what are you trying to do by overriding local broadcast stations?

1) to grab those that are listening to AM/FM, it is still a hyooge market,
2) client request, 3) DHS preference 4) the number of people alerted by a
sign/sticker and independent warning channel is much less than both that
and AM/FM, 5) the possibility that once the AM/FM FCC/NAB bond is broken, a
precedent could be set for cell, sat, threading messaging, etc 6) spinoff
tech for local/reg/national emergencies.

> and over
> what size area?

1 mile radius max from point of incident, less most probably.
--
Drop the alphabet for email

1700. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:12:16 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <bmk01k7h6who.1fzgeru7fwovs.dlg@40tude.net>
Source record: 69447

>>Do we have to blanket or only blanket each locale, that is, the
>>broadcasting stations of each locale?
>>
>>Not only will we miss those no AM/FM listeners, we will miss those that
>>don't have their radios on. An aggressive, road sign campaign is planned
>>something like " Turn On Your Radio, It Could Save Your Life" type of thing
>>near each incident site.

On Mon, 03 Oct 2005 12:58:40 -0400, J. Teske wrote:

> While Florida may have laws to this effect, in fact they are
> unenforcable because of federal preemption for all radio matters.
> Still illegal, just the wrong enforcement entity. A state or locality
> cannot for example legislate on TVI matters (though many have tried.)
> When they try, the FCC will send a notice to the locals that they are
> in charge and will handle enforcement. Unfortunately the FCC is
> unwilling to get involved in the matter of private contracts such as
> antenna exclusions in housing developments.

Is there a reason that the locals try to overwrite Fed law then?

> That said, be aware that when it comes to radio useage in the US, the
> FCC is actually NOT the ultimate authority. They are responsible only
> for those frequencies which a military controlled panel has ceded to
> the FCC for administrative purposes. I can't remember the name right
> off hand, but during my federal career, I had to work with them and we
> actually were able to override an FCC allocation because it interfered
> with a military application. While the FCC played ball with the DOD
> outfit I worked for, the ultimate beneficiary of that allocation (a TV
> station) sued and the matter wound up in Federal Court. The court
> reaffirmed the DOD's ultimate sovreignity in this matter. It
> ultimately got resolved by some allocation juggling when a combination
> of the Court, The FCC and the DOD gave the plaintiff some "religion."
>
> W3JT

Excellent point, in my research I saw this handoff or spectrum management
authority of the DoD and it makes sense. This is a serious, additional
consideration and is all the more reason to get the DHS' blessings.

Thanks.
--
Drop the alphabet for email

1701. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:20:25 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <90igr4oaklqx.11j4gw2huictq$.dlg@40tude.net>
Source record: 69448
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

> On Mon, 3 Oct 2005 11:28:32 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
>
>>Yes, the budget is rich with expected legal expenses. Since DHS has become
>>a player in this, we are hopeful that we can get the necessary punch to
>>overcome FCC and statutory issues.

On Mon, 03 Oct 2005 10:27:09 -0700, Richard Clark wrote:

> Hi Ari,
>
> The various pieces of this jigsaw puzzle is beginning to reveal a
> picture here. With the introduction of two governmental
> organizations, and their regulations, your "plan" has all the
> appearances of being suitably crafted to work on paper. It responds
> to the individual issues that any squinty-eyed bureaucrat would demand
> be satisfied for his postage sized turf, but in the overall it would
> fail miserably, or drive costs so high as to be tainted with the plea
> that "aren't people's lives worth the price?"

No one, in the end, will care about that, Richard, it's buzz words. The
economic hooks are in lessened liabilities and coordinating better
emergency evac and site control plans. Money talks here.

> Let's see, the original spec calls for a disaster situation that is
> confined to within 1 mile; that demands the local population be
> informed; that over-rides their usual paths of communication; that
> reaches them even when they are not engaged in listening.
>
> As already pointed out, big sound trucks do wonders, and have worked
> well since the beginning of the last century for this purpose. That
> kids inside their home can hear the ice-cream truck a mile away is a
> testimony to this simplicity.

That piece is a given, no argument there, the AM/FM piece is just one more
way to insure commo.

> Knocking on the door of the local broadcasters and commandeering their
> air-time has a time honored tradition of working quite well too. This
> involves no more time than getting that expensive mobile power plant
> rigged with wide band transmitters working into hugely lossy antenna
> systems into the same danger area. After-all, you could as easily
> call the first most obvious radio station as them, and you could be
> calling the others before they even got on the road.

Yes, but as we recently saw, things left to the "if come" often don't "come" ask FEMA. The plan needs to be in place and the control out of the hands of anyone except local/reg/national authority.

> The solution demanded is that all radio stations respond to a disaster
> network alert and citizens tune to the Civil Defense frequency when so
> warned by them.

Nothing wrong with that if you know where to tune. I don't, come to think of it.

> Is this another administration cut-back that was
> shelved as one of those unnecessary "entitlements?" Have they clipped
> all the wires to those old Air Raid sirens? When did the lights go
> out in FEMA?
>
> 73's
> Richard Clark, KB7QHC

MOF, it's an idea that came up over dinner during FEMA/NOLA, don't know about the sirens, all I do know is once FEMA got there, they shutdown most commo inc police in some cases. They want total control so this p[iece has more play at the immediate response (local/state) levels.
--
Drop the alphabet for email

1702. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:23:04 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhs3va$58u$1@news.service.uci.edu>
Source record: 69452

Cecil Moore wrote:

> Say Jim, what is the frequency of virtual photons?

Are you asking me what's "nu"? :-)

I always say it's c over lambda. For photons it's E/h.

You can be the local expert on virtual photons if you want, Cecil. I'm only on a need to know basis with them.

73, ac6xg

1703. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:24:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhs411dqu1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69450

> Reg, I think you're tilting at windmills.
>
==========
Dave,

First I am called Punchinello, and now Don Quixote is implied.

Yet you have repeatedly said "Reg is correct".

The only thing I have ever asked is to change the NAME.

It is the NAME itself which causes ill-educated IEEE members and befuddled university professors to become old wives. They are reduced to CB-ers who perhaps can be forgiven for being fooled just by a NAME. They actually believe the thing measures SWR on a line which does not exist. Or they find a line which does exist but on which it is impossible for the thing to measure anything because it is located in the wrong place. Their contorted imaginations somehow allow them to argue interminably between themselves but without ever coming to sensible conclusions on which they can agree. The evidence of battles about waves, reflections, re-reflections, virtual reflections, conjugate matches, etc, etc, is littered around these newsgroups. And it's all due to a misnomer.

Just change the name of the so-called SWR meter and 50 years of bitter warfare will revert once again to blessed peace and an understanding of how things really work. Sack your lawyers.

And if anybody should think I take all this seriously then think again. ;o)

Reg, G4FGQ

1704. Dipole on a hill? Farther from ground or farther up the hill?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:25:34 UTC
From: Lance Orner <lance@orner.net>
Message-ID: <slrndk34tv.61o.lance@localhost.localdomain>
Source record: 69472

Just getting back into HF, and I'm trying to get an antenna up on my small lot which backs up to a hillside. There are two locations available without erecting more infrastructure. One would be about 20 feet up at the base of the hill, and the other is about 50 feet up the hill, but only 10 feet off the ground.

So the question: Is it more important to have the antenna farther from ground, or father up the hill but closer to ground?

In the future, I'd love to put a tall antenna at the tallest part of the hill, but I'm looking for something temporary right now.

Thanks.

--
Lance Orner -- K7API
lance@orner.net

1705. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:25:57 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <3hia322eb7xf$.26poszgq5p1y.dlg@40tude.net>
Source record: 69449
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

> Hi Ari
>
> >>I always wonder whether broadcast at the most common IF frequencies
> >>would be a viable alternative? (eg 455khz for AM) Legality issues aside
> >>of course...
> >
> >
> > I'm missing your point. Please explain.

On Mon, 03 Oct 2005 11:50:35 -0500, Bob Bob wrote:

> I apologise if you already know the following! Its pretty basic radio..

Man, don't apologize, I have this semi-advanced understanding that missed a
lot of the basics, if you get the drift. Thanks.

> Almost every radio receiver on the market works off the "superhetrodyne"
> principal where the incoming signal is mixed with a local oscillator
> down to an intermediate frequency. This makes receiver design a little
> cheaper as you can then put your expensive filtering at one frequency
> rather than have something that has to track the actual transmitted
> frequency.

Got that.

> For example a station on the AM band at 870khz is mixed with a local
> oscillator of 1325 khz (in the receiver) to get a difference of 455khz.
> If the station frequency is changed then one only needs to modify the
> local oscillator frequency. This is what the knob on the radio does!

lol ok

> The most common IF frequency for an AM radio happens to be 455khz so
> transmitting on that will mean you will be heard on all AM radios in
> close proximity. I dont know off hand know the most common broadcast FM IF
> (maybe 10.7MHz or 7.8Mhz) but that should be easy to find. It is
> important to make sure that the IF of the fire trucks FM two-way radio
> isnt the same or you'll never be able to hear it inside the truck!

Now this I did not know!

> To "broadcast over" you would need to amplitude modulate the AM band
> 455khz TX and frequency modulate the FM broadcast IF frequency.
>
> > Good advice here, will 20db do it?
>

> FM is easier to do than AM. I'd factor in maybe 6dB for FM. You might be
> able to get by with 12dB for AM but the original station will make some
> small amount of noise under it. The important thing is that the person
> listening wil be able to understand the content.
>
> Note that this is of course only relevent when transmitting on the
> actual station frequency.

Got it.

> > Yes, we are shooting for max overbroadcasting but the reality is it is a
> > hit and miss proposition. Even the scenario of geo related
> obstructions is
> > a possibility.

On Mon, 03 Oct 2005 11:50:35 -0500, Bob Bob wrote:

> Well it shouldnt be that hard to model. Do a AM and FM band coverage
> prediction over the freeways etc you are doing the experiment on to
> discover what the receive strength will be in dBm. (It doesnt matter
> what "gain" you make the RX antenna because it will be the same figure
> that is used for your overbroadcast) For every say 200 yard square take
> the mean signal of each, then take the 80th percentile as the signal you
> have to beat. If that was (say) -80dBm you want -74dBm (for FM) at the
> maximum operating distance (was it a mile each way?) You then reverse
> model that to determine what the TX EIRP of the thing on the truck has
> to be.
>
> There are bound to be contract houses that will do this prediction for
> you. I use to work for one that had the software and I have some GPL
> versions myself. I cant do MF (ie AM broadcast) though.

Found the expertise for that and there is a chunk of open source stuff out
there, freeware.

> > Being in a tunnel of course there werent really any
> >>licensing issues.
>
> > Is that peculiar to Aus?

On Mon, 03 Oct 2005 11:50:35 -0500, Bob Bob wrote:

> The licensing issue or the tunnel? Tunnel rebroadcast is pretty common
> around the world. The company I worked for also did one in Indonesia.
> Its also used in underground mines.
>
> > Very nice, congrats on that. Was it Yagi technology or fractal?
>
> Err, the leaky coax was just a 2km run of an Andrews product that has
> leaky holes in the shield. It was fed in the middle with a wide band
> splitter and terminated with 50 ohmss at each end. Its quite a common
> thing to do in underground environments. (Buildings too) Handy for two
> way radio as well as cell phones.

>
> The AM thing was just a very long terminated (600r) wire.
>
> None of the above are yagi or fractal
>
> Cheers Bob

Thanks, Bob, I'm all overYagied and underfractalled. lol

--
Drop the alphabet for email

1706. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:27:22 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1c1ierphijd61.1gixe3w1yrhgb$.dlg@40tude.net>
Source record: 69451

On Mon, 03 Oct 2005 12:44:20 -0400, J. Teske wrote:

> On Mon, 3 Oct 2005 11:52:49 -0400, Ari Silversteinn
>
>>>
>>> I think the problem here is not the technology, but a fundamental
>>> misconception of what it is you are trying to prove and who is likely
>>> to be your audience. At this point you do not need an engineer, you
>>> need a sociologist.
>>>
>>> W3JT
>>
>>A sociologist?
>
> Yeah, to figure out what has to be done to get the audience to listen
> to you. A psychologist might also work.

Gee, are you trying to hurt my feelings?
--
Drop the alphabet for email

1707. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:31:41 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <i9utw0pmpbi8$.1pummvfireikj.dlg@40tude.net>
Source record: 69453

> On Mon, 3 Oct 2005 11:57:50 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
>>> You don`t need a radio tire truck. You need a SOUND TRUCK with an AIR
>>> HORN to get the audience`s attention to listen to the message.
>>I have seen these systems and they have failed to do two things.
>>Be heard in a modern car with loud radio and great insulation and 2) pass
>>the populace acceptance test.

On Mon, 03 Oct 2005 09:56:25 -0700, Richard Clark wrote:

> And you've offered this is during an obvious emergency? :

The acoustic testing has been done, yes, and the PA is obviously intrusive
to the nth degree and is not a panacea for all emergency commo.

> 1 Why would they play music loudly in an insulated car when doom is
> on their heels?

Because they haven't yet been informed, perhaps.

> 2 Why would neighbors complain of noise telling them they were about
> to be die?

It's not always a "death or flee" scenario, it could be hazardous but not
deadly.

> Richard's description adequately suits:
> Local - that would reach out approximately 1 mile and "overbroadcast"
> to those immediately in danger within a stationary site.
>
> Your objections are more tailored to suit your solution than the
> problem.
>
> 73's
> Richard Clark, KB7QHC

I have a client who is much more knowledgeable in these situations than I
am, maybe even you. It's a custom build, not an Ari build.
--
Drop the alphabet for email

1708. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:33:52 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1lb9rnabij6q8.1qdlbba6ct3dh.dlg@40tude.net>
Source record: 69454
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

> On Sun, 2 Oct 2005 18:29:13 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
>
>>Reading about LPAM, this looks technically possible but one concern I have
>>is antennae size. A fire truck, for instance, could have an antenna mounted
>>on its front, and up to 4 feet over the top of its roof, so we might look
>>at as much as 20 feet of length. I realize this places us over the 3 meter
>>max so one of the ???? is whether LFAM is realistic.

On Mon, 03 Oct 2005 10:05:07 -0700, Richard Clark wrote:

> Hi Ari,
>
> As you have described it, and have seen the discussion in regard to
> the need for ERP - you are so deep in the debit column with AM power
> EQUAL to a local broadcaster, that to climb out of that hole would be
> prohibitive. READ: no fire truck has a power plant sufficient to
> cover both the antenna system losses AND "overbroadcast" as you
> desire. And this is for ONE station only. Imagine your broader
> mandate to "overbroadcast" all local stations and that hole just gets
> deeper.

OK, so we supply the amplification.

>>Am I way off base here, can any antennae, fractal or other, or any AM
>>antennae technology, be utilized to design an antenna and propagate this
>>type of signal?
>
> With such a plea, to the savvy it reveals you are in over your head.
>
> 73's
> Richard Clark, KB7QHC

Doesn't matter if I'm in over my head, the technical side is one I only
need to be able to commo on, there will be others who will be cast with
this task.
--
Drop the alphabet for email

1709. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:35:56 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1pbrbzestnlq2.15m7emnaa4mdh$.dlg@40tude.net>
Source record: 69455
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 03 Oct 2005 13:37:49 -0500, Ben Jackson wrote:

> On 2005-10-02, Ari Silversteinn <abcarisilverstein@yahoo.comxyz> wrote:
>> This would be an "overbroadcast" (my term)
>> in that it would override local AM radio broadcasting to reach into cars,
>
> My experience with AM (on the aircraft band) is that two transmitters
> at the same time yields a horrible squeal and nothing else. The louder
> station (usually on the ground with hundreds of watts) has no particular
> advantage over the other station (usually in the air with 5-10 watts).
> In other words, there is no effect like FM capture.

Are you saying that if I am attempting an overbroadcast on, say, 680 AM and
the station is doing the same, and I am 12 db + greater, that all we will
get is squeal?
--
Drop the alphabet for email

1710. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:37:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%Dg0f.501$we3.212@newssvr13.news.prodigy.com>
Source record: 69456

Jim Kelley wrote:
> You can be the local expert on virtual photons if you want, Cecil. I'm
> only on a need to know basis with them.

I understand coherent photons emitted by free electrons being
accelerated and decelerated by RF currents on a wire antenna.
I don't know much about virtual photons. I was hoping that a
physics guru would know.
--
73, Cecil, http://www.qsl.net/w5dxp

1711. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:43:32 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <alg0f.11$tV1.5@bignews1.bellsouth.net>
Source record: 69457

yes

1712. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:47:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <oNg0f.504$we3.12@newssvr13.news.prodigy.com>
Source record: 69458

Reg Edwards wrote:
> Or they find a line which does exist but on which it is
> impossible for the thing to measure anything because it is located in
> the wrong place.

Reg, the SWR meter may be smarter than you think. Here's
an experiment for you. The system is lossless.

XMTR--a--1WL 50 ohm--b--1WL 75 ohm--c--1WL 92 ohm--d--load

An SWR meter calibrated for 50 ohms will read the SWR on
the 50 ohm feedline when installed at points a,b,c, or d.

An SWR meter calibrated for 75 ohms will read the SWR on
the 75 ohm feedline when installed at points a,b,c, or d.

An SWR meter calibrated for 92 ohms will read the SWR on
the 92 ohm feedline when installed at points a,b,c, or d.

Now Reg, you have to admit that an SWR meter that can read
the SWR on the 92 ohm feedline when installed at point 'a'
is a darned smart meter. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

1713. Re: Colinear question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:53:16 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <UtidnY07Rbz9PtzeRVn-pQ@comcast.com>
Source record: 69466

Jim Richardson wrote:

SNIPPED

>
> One of these days, hopefully in the near future, I'll get off my ass and
> take the ham test. Time.. always about time.
>
NAW! It's not about time! It's about priorities!!!!!

There are some things more important than Ham Radio and Antennas. I
suggest GRANDKIDS :-)

1714. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 20:53:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1Tg0f.505$we3.199@newssvr13.news.prodigy.com>
Source record: 69459
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Ari Silversteinn wrote:
> Are you saying that if I am attempting an overbroadcast on, say, 680 AM and
> the station is doing the same, and I am 12 db + greater, that all we will
> get is squeal?

One signal is the Beat Frequency Oscillator. I am amazed
that no one has thought of this perfect solution before.

If Morse code were required for all driver's licenses, then
all you have to do is furnish a CW carrier wave. The two
signals would mix and the squeal would be Morse code which
would carry the emergency information.
--
73, Cecil, http://www.qsl.net/w5dxp

1715. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:11:22 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <zs98idzon84q.17trxbtcs9yaj$.dlg@40tude.net>
Source record: 69460
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 03 Oct 2005 20:53:17 GMT, Cecil Moore wrote:

> Ari Silversteinn wrote:
>> Are you saying that if I am attempting an overbroadcast on, say, 680 AM and
>> the station is doing the same, and I am 12 db + greater, that all we will
>> get is squeal?
>
> One signal is the Beat Frequency Oscillator. I am amazed
> that no one has thought of this perfect solution before.
>
> If Morse code were required for all driver's licenses, then
> all you have to do is furnish a CW carrier wave. The two
> signals would mix and the squeal would be Morse code which
> would carry the emergency information.

What if your fat as a whale and your DL is wedged up your crack in your
back pocket?
--
Drop the alphabet for email

1716. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:11:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhs6qumea1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69461

"Cecil Moore" <mycall@arrl.net> wrote in message
news:oNg0f.504$we3.12@newssvr13.news.prodigy.com...
> Reg Edwards wrote:
> > Or they find a line which does exist but on which it is
> > impossible for the thing to measure anything because it is located
in
> > the wrong place.
>
> Reg, the SWR meter may be smarter than you think. Here's
> an experiment for you. The system is lossless.
>
> XMTR--a--1WL 50 ohm--b--1WL 75 ohm--c--1WL 92 ohm--d--load
>
> An SWR meter calibrated for 50 ohms will read the SWR on
> the 50 ohm feedline when installed at points a,b,c, or d.
>
> An SWR meter calibrated for 75 ohms will read the SWR on
> the 75 ohm feedline when installed at points a,b,c, or d.
>
> An SWR meter calibrated for 92 ohms will read the SWR on
> the 92 ohm feedline when installed at points a,b,c, or d.
>
> Now Reg, you have to admit that an SWR meter that can read
> the SWR on the 92 ohm feedline when installed at point 'a'
> is a darned smart meter. :-)
> --
> 73, Cecil, http://www.qsl.net/w5dxp
==========

Cec, as usual your message is full of implied "ifs".

Of what use is a meter which tells you what you already know?

It can be dispensed with.

Reg.

1717. Re: EXP 14 Hygain Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:15:57 UTC
From: Steven Fritts <w4sef@bellsouth.net>
Message-ID: <sr73k1tinuini47u0od621uhanh7m5m0b3@4ax.com>
Source record: 69462

No review found on EHAM about that antenna

On Mon, 03 Oct 2005 12:39:01 -0400, Steven Fritts
<w4sef@bellsouth.net> wrote:

>Does anyone have any experience wirth this antenna? I need pros or
>cons on it as I may be purchasing one soon.
>
>Thanks
>
>Steve W4SEF

1718. Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:19:42 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1lihotn31d6fk.a79lqxn15md6$.dlg@40tude.net>
Source record: 69463
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

DHS has proposed a change in scenario. They want an on locomotive alerting system that could be commandeered and driven at, near or about a disaster site. Everything else stays more or less the same, overbroadcasting on local AM/FM, power off the locomotive, selective or full frequency broadcasting, train (s) to be in motion at all times. 20-30 second messages that would also combine a message to be aware that a locomotive (at speed) will be flying by the at grade crossings.

Comments?
--
Drop the alphabet for email

1719. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:27:07 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhs7ne$6qv$1@news.service.uci.edu>
Source record: 69464

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> You can be the local expert on virtual photons if you want, Cecil.
>> I'm only on a need to know basis with them.
>
>
> I understand coherent photons emitted by free electrons being
> accelerated and decelerated by RF currents on a wire antenna.
> I don't know much about virtual photons. I was hoping that a
> physics guru would know.

A physics guru might say that if it's a photon, its frequency is E/h unless one of the virtues of being 'virtual' is that its frequency may or may not be equal to E/h. Perhaps it's greatest virtue might even be that you can attribute any physical characteristic you want to it - not unlike some of the other virtual entities. ;-)

73 de ac6xg

1720. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:31:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <oo53k1dqtljslnqq687bgf2e46efvbm6b9@4ax.com>
Source record: 69467
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 16:33:52 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:
>OK, so we supply the amplification.

OK, this is just a re-run of previous speculations. You don't know
the depth of your energy budget crisis, do you?

>Doesn't matter if I'm in over my head, the technical side is one I only
>need to be able to commo on, there will be others who will be cast with
>this task.

How many leaps of imagination will it take to land on the gravy train?

73's
Richard Clark, KB7QHC

1721. Re: EXP 14 Hygain Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:31:40 UTC
From: Steven Fritts <w4sef@bellsouth.net>
Message-ID: <9o83k1lskpf9mojven4u81lm80sl1abcvt@4ax.com>
Source record: 69465

My apologies -found the article.

On Mon, 03 Oct 2005 12:39:01 -0400, Steven Fritts
<w4sef@bellsouth.net> wrote:

>Does anyone have any experience wirth this antenna? I need pros or
>cons on it as I may be purchasing one soon.
>
>Thanks
>
>Steve W4SEF

1722. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:35:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wuh0f.511$we3.424@newssvr13.news.prodigy.com>
Source record: 69468

Reg Edwards wrote:
>>Now Reg, you have to admit that an SWR meter that can read
>>the SWR on the 92 ohm feedline when installed at point 'a'
>>is a darned smart meter. :-)

> Of what use is a meter which tells you what you already know?

I don't already know it, Reg. The impedance of the load is
unknown so the SWR is unknown until measured.
--
73, Cecil, http://www.qsl.net/w5dxp

1723. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:37:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5093k11olhbqeu5jr3rd8057uf8jeg8r33@4ax.com>
Source record: 69469

On Mon, 03 Oct 2005 14:27:07 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:
>Perhaps it's greatest virtue might even be that you can attribute any physical
characteristic you want to it
Now there's a familiar terrain.

Hi Jim,

Are we verging on the shadow of a photon?

73's
Richard Clark, KB7QHC

1724. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:39:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6893k1tt0c3ccre5aus6ucrc1n7h14rhmo@4ax.com>
Source record: 69470
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:
>Comments?
What a troll.

1725. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:41:43 UTC
From: Dave <noone@nowhere.com>
Message-ID: <cLCdnU8ljugGONzeRVn-ig@crocker.com>
Source record: 69471
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

seems strange, and not very practical.

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1lihotn31d6fk.a79lqxn15md6$.dlg@40tude.net...
> DHS has proposed a change in scenario. They want an on locomotive alerting
> system that could be commandeered and driven at, near or about a disaster
> site. Everything else stays more or less the same, overbroadcasting on
> local AM/FM, power off the locomotive, selective or full frequency
> broadcasting, train (s) to be in motion at all times. 20-30 second
> messages
> that would also combine a message to be aware that a locomotive (at speed)
> will be flying by the at grade crossings.
>
> Comments?
> --
> Drop the alphabet for email

1726. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:47:29 UTC
From: Dave <noone@nowhere.com>
Message-ID: <taydnfw3dvFoO9zeRVn-tQ@crocker.com>
Source record: 69473
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:c9gqhrx7nggh$.1hmwsp16r4gsh.dlg@40tude.net...
> On Mon, 3 Oct 2005 12:01:14 -0400, Fred W4JLE wrote:
>
>> In that case, simply modify the sign to "Tune to 560, it could save your
>> life" and use a discrete frequency low power transmitter.
>
> I assume you mean to take up an unused local channel? Or to bargain for
> time on a used one?
>
> Both ideas make sense.
> --
> Drop the alphabet for email

if this is for real time notification you don't have time to bargain or to
find an unused channel... and who would listen to you anyway if it was
unused? how often do you turn the knob on your car radio??

what about the emergency broadcast system? that would seem to be the
'proper' method of emergency notification, its already set up for all sorts
of local, regional, and national notifications.

1727. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 21:58:33 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1c2ad$4341a9be$97d558d8$20391@ALLTEL.NET>
Source record: 69474
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

There are a couple of frequiencies for unlicensed low power am stations. You can see them in use by real estate folks selling houses. There are no commercial stations on the frequency.

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message news:c9gqhrx7nggh$.1hmwsp16r4gsh.dlg@40tude.net...
> On Mon, 3 Oct 2005 12:01:14 -0400, Fred W4JLE wrote:
>
> > In that case, simply modify the sign to "Tune to 560, it could save your
> > life" and use a discrete frequency low power transmitter.
>
> I assume you mean to take up an unused local channel? Or to bargain for
> time on a used one?
>
> Both ideas make sense.
> --
> Drop the alphabet for email
>

1728. Re: UWB pulse signal has no DC? Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 22:07:55 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dhsa40$7t1$1@news.service.uci.edu>
Source record: 69475

Richard Clark wrote:

> Are we verging on the shadow of a photon?

Only the shadow knows. It's a quantum effect.

ac6xg

1729. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 22:15:23 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <04i0f.15845$iM2.1296048@news.xtra.co.nz>
Source record: 69476
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1lihotn31d6fk.a79lqxn15md6$.dlg@40tude.net...
> DHS has proposed a change in scenario. They want an on locomotive alerting
> system that could be commandeered and driven at, near or about a disaster
> site. Everything else stays more or less the same, overbroadcasting on
> local AM/FM, power off the locomotive, selective or full frequency
> broadcasting, train (s) to be in motion at all times. 20-30 second
> messages
> that would also combine a message to be aware that a locomotive (at speed)
> will be flying by the at grade crossings.
>
> Comments?
> --
Impractical, for the same reasons cited earlier. What's wrong with
electronic message boards on trailers fitted with sirens and, if deemed
necessarily, a very large guy with a gun to maintain interest.

You may find that sci.electronic.misc or sci.electronic.design may be more
relevant, since it's commercial/military and not amateur. Mind you, they may
also be less polite.....

Ken

1730. Re: Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 22:20:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhsaqq$k3o$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69477

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:u62813-qhf.ln1@p400bob.personal.cox.net...
> Hi Reg
>
> The two pieces of coax are only meant to be a 100 ohm balanced Q
section
> to translate the antenna Z to close to that of the main feedline
(50r).
> I could do the same if I had some 100r open/ribbon feedline.
>
> The outer conductors/shield should be at zero potential and as such
> preserve the Z between the two inner conductors. This is handy in
that
> the coaxes dont have to be bound close together and could be fed
through
> a non metallic conduit without problems.
>
> Have I made any sense?
>
Yes, that works OK. You have acheived your objective.

My only comment is that the inner coaxial conductors are very thin and depending on length they may be a little lossy. You could use a twisted pair of thicker wires insulated with thin plastic which would have approximately the same 100-ohm impedance. The actual impedance is not very critical.

This would also eliminate stray capacitance of the coax outer conductors to their surroundings. Although that is not likely to cause much trouble anyway.

Reg.

1731. Re: Winding details for antenna choke ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 22:32:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhsbij$6q9$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69478

Dave, please tell me whether you ran the program OK.

The numbers are correct but I was not happy with the introductory
notes. Did they make sense to you?

Reg, G4FGQ

"David" <groups@orbitcoms.com> wrote in message
news:gJm%e.3900$U51.2554@news-server.bigpond.net.au...
> Thank you.
>
> Reg Edwards wrote:
> > For design of solenoid chokes wound with coax cable, download
program
> > SELFRES3 from website below.
> > --
> > ....
> > Regards from Reg, G4FGQ
> > For Free Radio Design Software go to
> > http://www.btinternet.com/~g4fgq.regp
> > ....
> >
> >

1732. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 22:55:13 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11k3dmkqbnho149@corp.supernews.com>
Source record: 69479

Ari Silversteinn wrote:
>
>>>Do we have to blanket or only blanket each locale, that is, the
>>>broadcasting stations of each locale?
>>>
>>>Not only will we miss those no AM/FM listeners, we will miss those that
>>>don't have their radios on. An aggressive, road sign campaign is planned
>>>something like " Turn On Your Radio, It Could Save Your Life" type of thing
>>>near each incident site.
>
>
> On Mon, 03 Oct 2005 12:58:40 -0400, J. Teske wrote:
>
>
>>While Florida may have laws to this effect, in fact they are
>>unenforcable because of federal preemption for all radio matters.
>>Still illegal, just the wrong enforcement entity. A state or locality
>>cannot for example legislate on TVI matters (though many have tried.)
>>When they try, the FCC will send a notice to the locals that they are
>>in charge and will handle enforcement. Unfortunately the FCC is
>>unwilling to get involved in the matter of private contracts such as
>>antenna exclusions in housing developments.
>
>
> Is there a reason that the locals try to overwrite Fed law then?
>
>
>>That said, be aware that when it comes to radio useage in the US, the
>>FCC is actually NOT the ultimate authority. They are responsible only
>>for those frequencies which a military controlled panel has ceded to
>>the FCC for administrative purposes. I can't remember the name right
>>off hand, but during my federal career, I had to work with them and we
>>actually were able to override an FCC allocation because it interfered
>>with a military application. While the FCC played ball with the DOD
>>outfit I worked for, the ultimate beneficiary of that allocation (a TV
>>station) sued and the matter wound up in Federal Court. The court
>>reaffirmed the DOD's ultimate sovreignity in this matter. It
>>ultimately got resolved by some allocation juggling when a combination
>>of the Court, The FCC and the DOD gave the plaintiff some "religion."
>>
>>W3JT
>
>
> Excellent point, in my research I saw this handoff or spectrum management

> authority of the DoD and it makes sense. This is a serious, additional
> consideration and is all the more reason to get the DHS' blessings.
>
> Thanks.
Actually the DOD does not have any authority over radio spectrum. There are two federal agencies that do. One is the FCC, which we all know and love, the other is NTIA, the National Telecomunications Information Agency. NITA controls all federal radio frequencies. Since the DOD is a Federal Agency their frequencies are controled by NTIA the same as the FBI, CIA Secret Service, Dept of Homeland Security and any other federal alphabet soup agency.

Dave N
a FCC and a NTIA user

1733. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 22:57:35 UTC
From: "Dr.Ace" <NoSpam@BedfordSucks.com>
Message-ID: <55812$4341b749$4e10530$14651@DIALUPUSA.NET>
Source record: 69480
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Snipped
>
> You may find that sci.electronic.misc or sci.electronic.design may be more
> relevant, since it's commercial/military and not amateur. Mind you, they
> may also be less polite.....
>
> Ken
>
>

Wow , there are news groups that are less polite than some of the people in
this news group.
That's sad. Unnecessary rudeness is unnecessary and rude.
Ace - WH2T

1734. Re: The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:03:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhsdcobvj1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69481

"Irv Finkleman" wrote
> Perhaps it will perform better upside-down!
>
==========
I havn't laughed so much in ages. It really hurts.

Reg.

1735. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:09:59 UTC
From: kashe@sonic.net
Message-ID: <jfe3k1lcnkjrnj20sd04u23o827r3bg2u9@4ax.com>
Source record: 69482
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Sun, 02 Oct 2005 21:26:48 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 03 Oct 2005 03:56:24 GMT, kashe@sonic.net wrote:
>
>> ISP location != subscriber location. One subscriber is in New
>>Zealand.
>
>Trying to convince us you pay trans-oceanic toll charges for a modem

Who said modem?

>hookup?

One subscriber != me.

And being in New Zealand has you/them/whomever offering:

... an incomplete sentence?

>>>> I'm not hearing any interest in turning streets near me into
>>>>canals.
>
>Yeh - sure.

Damn straight.

1736. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:10:43 UTC
From: kashe@sonic.net
Message-ID: <uie3k15lnoie7dhtdmdcpou8c31ts045mf@4ax.com>
Source record: 69483
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 03 Oct 2005 14:30:55 -0400, Uncle Ted <malican40@verizon.com>
wrote:

>On Mon, 03 Oct 2005 06:51:22 GMT, kashe@sonic.net wrote:
>
>
>>>> As written, they beg to be read as an incomplete syllogism.
>>>
>>>In other words, you made the connection up in your head. Typical.
>>
>> Jesus, another liunatic who thinks he knows all about me.
>>Pompous bastard.
>
>Mr. Pot, meet Mr. Kettle...

Persuasive logic there, childish one.

1737. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:16:33 UTC
From: kashe@sonic.net
Message-ID: <mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com>
Source record: 69484
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:

>DHS has proposed a change in scenario. They want an on locomotive alerting
>system that could be commandeered and driven at, near or about a disaster
>site. Everything else stays more or less the same, overbroadcasting on
>local AM/FM, power off the locomotive, selective or full frequency
>broadcasting, train (s) to be in motion at all times. 20-30 second messages
>that would also combine a message to be aware that a locomotive (at speed)
>will be flying by the at grade crossings.
>
>Comments?

Tracks across Lake Ponchartrain fell in.

Granted they were put back in service faster than anything the
government had connection to.

1738. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:27:58 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <38j0f.15852$iM2.1293337@news.xtra.co.nz>
Source record: 69485
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Dr.Ace" <NoSpam@BedfordSucks.com> wrote in message
news:55812$4341b749$4e10530$14651@DIALUPUSA.NET...
>
> Snipped
>>
>> You may find that sci.electronic.misc or sci.electronic.design may be
>> more relevant, since it's commercial/military and not amateur. Mind you,
>> they may also be less polite.....
>>
>> Ken
>>
>>
>
> Wow , there are news groups that are less polite than some of the people
> in this news group.
> That's sad. Unnecessary rudeness is unnecessary and rude.
> Ace - WH2T
>
A couple of threads aside, this is a pretty good group. So are the others I
mentioned, but they don't tolerate the sort of technical vagueness that's
being displayed in this thread.

Cheers.

Ken

1739. Re: The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:28:21 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <d_CdnVRpg5oII9zeRVn-og@adelphia.com>
Source record: 69486

Reg Edwards wrote:
> I see from an Australian newsgroup that somebody is seriously
> considering and making plans to cover the whole continent using a pair
> of longwave, 1-megawatt, broadcast transmitters.
>
> The antennas are to be Professor Hately's CFA's which perform
> according to Maxwell's 4th Equation.
>
> Should somebody break the bad news to them before its too late? Or
> should we wait and have a good laugh?

Maybe we should point that Ari fellow in their direction?

- Mike KB3EIA -

1740. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:29:52 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <Q9j0f.15853$iM2.1296439@news.xtra.co.nz>
Source record: 69487
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

<kashe@sonic.net> wrote in message
news:mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com...
> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
>
>>DHS has proposed a change in scenario. They want an on locomotive alerting
>>system that could be commandeered and driven at, near or about a disaster
>>site. Everything else stays more or less the same, overbroadcasting on
>>local AM/FM, power off the locomotive, selective or full frequency
>>broadcasting, train (s) to be in motion at all times. 20-30 second
>>messages
>>that would also combine a message to be aware that a locomotive (at speed)
>>will be flying by the at grade crossings.
>>
>>Comments?
>
> Tracks across Lake Ponchartrain fell in.
>
> Granted they were put back in service faster than anything the
> government had connection to.

Why a loco anyway? It would appear to be the mistaken assumption that anything that big must have power to burn on anything plugged in by a user. Not the case - the power from a loco is, not surprisingly, applied to the tracks. The electric generators used for powering gear other than the train's vitals are not high power.

Ken

1741. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:31:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <00f3k1p06ih7ua69rna698mccj164el8qv@4ax.com>
Source record: 69488
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 03 Oct 2005 23:09:59 GMT, kashe@sonic.net wrote:

>On Sun, 02 Oct 2005 21:26:48 -0700, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>On Mon, 03 Oct 2005 03:56:24 GMT, kashe@sonic.net wrote:
>>
>>> ISP location != subscriber location. One subscriber is in New
>>>Zealand.
>>
>>Trying to convince us you pay trans-oceanic toll charges for a modem
>
> Who said modem?
I did. Look at the attribution line above.
>
>>hookup?
>
> One subscriber != me.
(More than one subscriber != you) == so what?
>
> And being in New Zealand has you/them/whomever offering:
>
> ... an incomplete sentence?
Now that you interjected an incomplete sentence into it.
>
>>>>> I'm not hearing any interest in turning streets near me into
>>>>>canals.
>>
>>Yeh - sure.
>
> Damn straight.
Telling us you "might" hear interest in turning streets near you into
canals? Might not? - newsflash! Taking I-5 south to I-10 east, you
are 2274 miles or more from even a remote chance with respect to New
Orleans.

1742. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-03 23:50:44 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <46ednZll5fNJXtzeRVn-tw@adelphia.com>
Source record: 69489
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Ken Taylor wrote:
> <kashe@sonic.net> wrote in message
> news:mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com...
>
>>On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
>><abcarisilverstein@yahoo.comxyz> wrote:
>>
>>
>>>DHS has proposed a change in scenario. They want an on locomotive alerting
>>>system that could be commandeered and driven at, near or about a disaster
>>>site. Everything else stays more or less the same, overbroadcasting on
>>>local AM/FM, power off the locomotive, selective or full frequency
>>>broadcasting, train (s) to be in motion at all times. 20-30 second
>>>messages
>>>that would also combine a message to be aware that a locomotive (at speed)
>>>will be flying by the at grade crossings.
>>>
>>>Comments?
>>
>>Tracks across Lake Ponchartrain fell in.
>>
>>Granted they were put back in service faster than anything the
>>government had connection to.
>
>
> Why a loco anyway? It would appear to be the mistaken assumption that
> anything that big must have power to burn on anything plugged in by a user.
> Not the case - the power from a loco is, not surprisingly, applied to the
> tracks. The electric generators used for powering gear other than the
> train's vitals are not high power.

Guys, don't ya know that this guy is trolling and caught way more than
the daily creel limit?

- Mike KB3EIA -

1743. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 00:03:57 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <OFj0f.15858$iM2.1296239@news.xtra.co.nz>
Source record: 69490
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:46ednZll5fNJXtzeRVn-tw@adelphia.com...
> Ken Taylor wrote:
>> <kashe@sonic.net> wrote in message
>> news:mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com...
>>
>>>On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
>>><abcarisilverstein@yahoo.comxyz> wrote:
>>>
>>>
>>>>DHS has proposed a change in scenario. They want an on locomotive
>>>>alerting
>>>>system that could be commandeered and driven at, near or about a
>>>>disaster
>>>>site. Everything else stays more or less the same, overbroadcasting on
>>>>local AM/FM, power off the locomotive, selective or full frequency
>>>>broadcasting, train (s) to be in motion at all times. 20-30 second
>>>>messages
>>>>that would also combine a message to be aware that a locomotive (at
>>>>speed)
>>>>will be flying by the at grade crossings.
>>>>
>>>>Comments?
>>>
>>>Tracks across Lake Ponchartrain fell in.
>>>
>>>Granted they were put back in service faster than anything the
>>>government had connection to.
>>
>>
>> Why a loco anyway? It would appear to be the mistaken assumption that
>> anything that big must have power to burn on anything plugged in by a
>> user. Not the case - the power from a loco is, not surprisingly, applied
>> to the tracks. The electric generators used for powering gear other than
>> the train's vitals are not high power.
>
> Guys, don't ya know that this guy is trolling and caught way more than the
> daily creel limit?
>
> - Mike KB3EIA -

Well, he's not a troll in that he's making it up as he goes - it appears he
really is hoping to do for his company what he says (source: Google).

However it's a job which really equates to:
<Government fleeces tax-payers>
<Bureaucrat gets hold of budget allocation>
<Bureaucrat needs to succeed - ie. unload allocation>
<Ari and co. want to be under the hopper when the jackpot payout commences>

A valid way of doing business, but still a crock.

Ken

1744. Re: Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 00:17:36 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <0au813-9eg.ln1@p400bob.personal.cox.net>
Source record: 69493

Mmm okay, well considering the rest of the feedline is RG58 I guess the matching section has less loss per unit length! <grin> (The Q section is 3 point something metres long - 1/4 wave at 0.66 vf)

I havent been playing with HF that long. I must admit though that I tend to ignore the losses that I would worry a lot about at VHF/UHF.

Oh BTW I tried one of your pgms under Linux Wine the other day. Dies with some kind of DOS memory alloc error or something. I'll make a note of it next time and do a little research if your interested.

Cheers Bob

Reg Edwards wrote:

> Yes, that works OK. You have acheived your objective.
>
> My only comment is that the inner coaxial conductors are very thin and
> depending on length they may be a little lossy. You could use a
> twisted pair of thicker wires insulated with thin plastic which would
> have approximately the same 100-ohm impedance. The actual impedance is
> not very critical.
>
> This would also eliminate stray capacitance of the coax outer
> conductors to their surroundings. Although that is not likely to
> cause much trouble anyway.
> ----
> Reg.
>
>

1745. OT: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 00:26:04 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11k3j0s7dujl92a@corp.supernews.com>
Source record: 69491

I posted this on another group, but you all seem really smart here.

I have a military radio (PRC-1099) and a battery. I want to buy a power supply that will power the radio but which can also be used to charge the battery. The radio needs a 12V power supply to run. The battery is a lead-calcium type, and is supposed to be charged at 1A for 5 to 6 hours.

Buying a 12V power supply is easy, but do supplies normally have a variable current output? I am not an authority on power supplies or charging batteries, so I need some help here.

Thanks,

Rod KI7CQ

1746. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 00:49:03 UTC
From: hot-ham-and-cheese@hotmail.com
Message-ID: <1128386943.889460.155110@g43g2000cwa.googlegroups.com>
Source record: 69492
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Mike Coslo wrote:
>
> Pat doesn't like us talking about this, Matt. Seems like everyone is
> having a good time, and the posts are pretty civil. I guess some people
> like to control others, eh?
>
> - Mike KB3EIA -

Hi! Very much like the attempted controls on Len. Best of Luck.

1747. Noise Figure measurement - Y factor calculator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 01:35:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <jom3k11pkd0sc0hov7drcd78ulv5ff29ia@4ax.com>
Source record: 69494

I have developed a simple tool to assist NF measurements by performing the calcs in a two stage cal/measure process, and documenting the test.

So, if you interest in antennas runs to overall receive system performance, you may find this calculator handy.

Works in IE and Firefox. Tested to a fair extent, but it could contain defects... if you find any, please let me know.

http://www.vk1od.net/sc/y.htm

Owen
--

1748. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 01:44:09 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <497c5$4341de9e$97d558d8$12886@ALLTEL.NET>
Source record: 69495
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

That would be much easier, simply sweep a modulated oscillator across the band. With a couple of adjustments it would be easy to emulate a train whistle, a somewhat universal warning.

<kashe@sonic.net> wrote in message news:mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com...
> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
>
> >DHS has proposed a change in scenario. They want an on locomotive alerting
> >system that could be commandeered and driven at, near or about a disaster
> >site. Everything else stays more or less the same, overbroadcasting on
> >local AM/FM, power off the locomotive, selective or full frequency
> >broadcasting, train (s) to be in motion at all times. 20-30 second messages
> >that would also combine a message to be aware that a locomotive (at speed)
> >will be flying by the at grade crossings.
> >
> >Comments?
>
> Tracks across Lake Ponchartrain fell in.
>
> Granted they were put back in service faster than anything the
> government had connection to.

1749. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 01:52:41 UTC
From: hhc314@yahoo.com
Message-ID: <1128390761.510351.170710@g43g2000cwa.googlegroups.com>
Source record: 69496
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Wonder no longer, because broadcasing at IF frequencies has been for year the standard in the US. In spite of some rather silly speculative posts, this mechanism has proved itself for more than 10-years here.

In a confined space such as a tunnel, a transmitter of 10-watts more than sufficint to get the job done, and using nothing more sophisticated than a simple wire radiator running the length of the tunnel.

In Boston, we also retransmit commercial radio broadcasts into our tunnels, but that requires equipment dedicated to each radio channel that we re-broadcast, and that becomes very costly after 10 stations or so, hence there is a limit.

The real challenge is in maintaining emergency communications to the outside from within our tunnels. All are serviced by the traditional leaky coax that runs along the top of the tunnel, but considering that all of these emergency services operate on their own indepdendent frequency bands, so servicing them simulteously becomes somwhat problematic. particularly when hand-held, low power devices enter the big picture.

Harry C.

1750. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 01:57:01 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <OjI0f.15873$iM2.1297908@news.xtra.co.nz>
Source record: 69497
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

<hhc314@yahoo.com> wrote in message
news:1128390761.510351.170710@g43g2000cwa.googlegroups.com...
> Wonder no longer, because broadcasing at IF frequencies has been for
> year the standard in the US. In spite of some rather silly speculative
> posts, this mechanism has proved itself for more than 10-years here.
>
> In a confined space such as a tunnel, a transmitter of 10-watts more
> than sufficint to get the job done, and using nothing more
> sophisticated than a simple wire radiator running the length of the
> tunnel.
>
> In Boston, we also retransmit commercial radio broadcasts into our
> tunnels, but that requires equipment dedicated to each radio channel
> that we re-broadcast, and that becomes very costly after 10 stations or
> so, hence there is a limit.
>
> The real challenge is in maintaining emergency communications to the
> outside from within our tunnels. All are serviced by the traditional
> leaky coax that runs along the top of the tunnel, but considering that
> all of these emergency services operate on their own indepdendent
> frequency bands, so servicing them simulteously becomes somwhat
> problematic. particularly when hand-held, low power devices enter the
> big picture.
>
> Harry C.
>
All agreed, but that is in a tunnel, which has the advantage of not having
to overcome the still-received commercial stations. The OP wants to do this
out in the open, anywhere, any time. He also wanted to do it while driving
at high speed for some reason, but I think he's quietly shelved that part of
the idea.

Cheers.

Ken

1751. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 02:08:51 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4341e434$0$3754$39cecf19@news.twtelecom.net>
Source record: 69498
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

WOW! None of us Northerners would have thought of somethjing that
sofisteekayted.

tom
K0TAR

Fred W4JLE wrote:

> That would be much easier, simply sweep a modulated oscillator across the
> band. With a couple of adjustments it would be easy to emulate a train
> whistle, a somewhat universal warning.
>
> <kashe@sonic.net> wrote in message
> news:mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com...
>
>>On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
>><abcarisilverstein@yahoo.comxyz> wrote:
>>
>>
>>>DHS has proposed a change in scenario. They want an on locomotive
>
> alerting
>
>>>system that could be commandeered and driven at, near or about a disaster
>>>site. Everything else stays more or less the same, overbroadcasting on
>>>local AM/FM, power off the locomotive, selective or full frequency
>>>broadcasting, train (s) to be in motion at all times. 20-30 second
>
> messages
>
>>>that would also combine a message to be aware that a locomotive (at
>
> speed)
>
>>>will be flying by the at grade crossings.
>>>
>>>Comments?
>>
>>Tracks across Lake Ponchartrain fell in.
>>
>>Granted they were put back in service faster than anything the
>>government had connection to.
>
>

>

1752. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 02:10:02 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1cbb0$4341e4af$97d558d8$26948@ALLTEL.NET>
Source record: 69499

Not that simple Rod, as the battery charges, and the voltage changes, current from most supplies follow the voltage. What I mean by that is that with a discharged battery you get more current than you desire at the start of the charge cycle. I use a device that is used to charge model airplane batteries. The same supply you use to power the radio will power the current limited charger.

Check your local Hobby Shop or one of the on-line sites. I bought one for about $49.00 that will charge Gel Cells, Ni-Cads, etc.

Of course you can simply use a wall wart, but the money you think you saved will be spent in battery replacement.

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11k3j0s7dujl92a@corp.supernews.com...
> I posted this on another group, but you all seem really smart here.
>
> I have a military radio (PRC-1099) and a battery. I want to buy a power
> supply that will power the radio but which can also be used to charge the
> battery. The radio needs a 12V power supply to run. The battery is a
> lead-calcium type, and is supposed to be charged at 1A for 5 to 6 hours.
>
> Buying a 12V power supply is easy, but do supplies normally have a
variable
> current output? I am not an authority on power supplies or charging
> batteries, so I need some help here.
>
> Thanks,
>
> Rod KI7CQ
>
>

1753. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 02:20:51 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11k3po2qf3gt18e@corp.supernews.com>
Source record: 69500

I think you just told me what I needed to know. Thanks Fred.

Rod KI7CQ

1754. Re: OT: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 03:08:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1nm0f.8634$oO2.1010@newssvr27.news.prodigy.net>
Source record: 69501

Rod Maupin wrote:
> I have a military radio (PRC-1099) and a battery. I want to buy a power
> supply that will power the radio but which can also be used to charge the
> battery. The radio needs a 12V power supply to run. The battery is a
> lead-calcium type, and is supposed to be charged at 1A for 5 to 6 hours.
>
> Buying a 12V power supply is easy, but do supplies normally have a variable
> current output? I am not an authority on power supplies or charging
> batteries, so I need some help here.

What are the constant voltage charging specs on the battery? (if any)
--
73, Cecil http://www.qsl.net/w5dxp

1755. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 03:26:05 UTC
From: "John Doe"
Message-ID: <4341f644$0$22741$afc38c87@news.optusnet.com.au>
Source record: 69502
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:6893k1tt0c3ccre5aus6ucrc1n7h14rhmo@4ax.com...
> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
> >Comments?
> What a troll.

But Wait,
There's more!
Emergency Messaging, over broadcasting on
AM/FM/SCA/IBOC/Satellite/TV/HDTV/Mobile Phone/
On Ships to sail to the road accidents,
on Submarines, Aircraft & Satellites.
;-)

1756. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 04:12:14 UTC
From: Uncle Ted <malican40@verizon.com>
Message-ID: <e404k1df2gau3272nu2m7ikm3rj3og4bnk@4ax.com>
Source record: 69503
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 03 Oct 2005 23:10:43 GMT, kashe@sonic.net wrote:

>On Mon, 03 Oct 2005 14:30:55 -0400, Uncle Ted <malican40@verizon.com>
>wrote:
>
>>On Mon, 03 Oct 2005 06:51:22 GMT, kashe@sonic.net wrote:
>>
>>
>>>>>> As written, they beg to be read as an incomplete syllogism.
>>>>
>>>>In other words, you made the connection up in your head. Typical.
>>>
>>> Jesus, another liunatic who thinks he knows all about me.
>>>Pompous bastard.
>>
>>Mr. Pot, meet Mr. Kettle...
>
> Persuasive logic there, childish one.

Yeah, right. Like your little one-line snippets of irrefutable wisdom
are persuading anyone...

1757. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 05:39:13 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <5Ao0f.223$yN6.23@trnddc04>
Source record: 69504

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11k3j0s7dujl92a@corp.supernews.com...
>I posted this on another group, but you all seem really smart here.
>
> I have a military radio (PRC-1099) and a battery. I want to buy a power
> supply that will power the radio but which can also be used to charge the
> battery. The radio needs a 12V power supply to run. The battery is a
> lead-calcium type, and is supposed to be charged at 1A for 5 to 6 hours.
>
> Buying a 12V power supply is easy, but do supplies normally have a
> variable current output? I am not an authority on power supplies or
> charging batteries, so I need some help here.
>
> Thanks,
>
> Rod KI7CQ

Rod

For what reason is it needed to require the battery to be charged within 6 hours? If it is practical to charge the battery "overnight", the requirements could be much less expensive.
There is alot-alot of information on the Internet about charging lead-acid batteries. The lead-Calcium is the type cell commonly used in most automotive autos today.
If this was my radio, I'd use a wall wart with a 12 volt lamp in series between the wall wart and the battery. . A 10 volt DC, 1 amp wall wart would probably be close to proper for this radio. The series lamp will limit the charge rate.

If the battery terminal voltage is restricted to being no higher than 14.8 volts,the battery will not boil off its electrolyte.

Jerry

1758. Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 07:20:06 UTC
From: SH <sholby@hotmail.com>
Message-ID: <43422d26$1@news.wineasy.se>
Source record: 69505

Hi

I have come up with one of those crazy DYI ideas which I would like to try to implement but one thing still remains.

I have two UHF (TV) arial pointing in different directions and would like to connect them together through BP filters to minimize noise.
BP = Bandpass
Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3 ch 49 - 68/ or high pass
Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2 ch38 -39, BP 3 ch 47

I have found formulas to design each section of BF but how to you connect several BP filters in parallel??? I have investigated some old TV filter and they have a coil (12 WDG) in and out of each BP section but is that the way to do it and how does it influence the design of each BP.

The only approach that I can find is to split the signal into three (- 6dB) then feed each into a BP filter and the Combine them again (-6dB). This will result in each BP section seeing 75 Ohms as they shouland they would not interfere with eachother. Ofcouse i would need a 20 dB amplifier to fix the loss.

But is there a better way.

Best regards

Svend Holby

1759. Re: The CFA antenna is still with us

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 07:51:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <90d4k19js436dctt5edh4326hk80jihr81@4ax.com>
Source record: 69506

On Mon, 03 Oct 2005 19:28:21 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

> Maybe we should point that Ari fellow in their direction?

Hi Mike,

1 MW into a cfa from the powerplant on a train running circles within
a mile of a accident site? AND to overcome local broadcast stations?
I might have agreed until that second proviso.

73's
Richard Clark, KB7QHC

1760. Re: Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 08:03:20 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndk4dq8.264.ben@saturn.home.ben.com>
Source record: 69507

On 2005-10-04, SH <sholby@hotmail.com> wrote:
>
> I have two UHF (TV) arial pointing in different directions and would like to
> connect them together through BP filters to minimize noise.
> BP = Bandpass
> Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3 ch 49 -
> 68/ or high pass
> Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2 ch38 -39, BP
> 3 ch 47

It's probably more reasonable to notch out the primary interference
than to get that fancy with filtering. Eg if you have ghosts from an
interfering channel 21, notch out 21 on the offending antenna. It's
easier to make a highly selective notch than a bandpass with steep
skirts.

> I have found formulas to design each section of BF but how to you connect
> several BP filters in parallel???

A set of notch filters would be used in series. I believe this is
what cable companies use to control access to premium channels.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

1761. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 09:51:46 UTC
From: kashe@sonic.net
Message-ID: <aoi4k1l3cj86fg3vjnadnmepbcvvj8anjg@4ax.com>
Source record: 69508
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 12:29:52 +1300, "Ken Taylor" <ken123@xtra.co.nz>
wrote:

><kashe@sonic.net> wrote in message
>news:mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com...
>> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
>> <abcarisilverstein@yahoo.comxyz> wrote:
>>
>>>DHS has proposed a change in scenario. They want an on locomotive alerting
>>>system that could be commandeered and driven at, near or about a disaster
>>>site. Everything else stays more or less the same, overbroadcasting on
>>>local AM/FM, power off the locomotive, selective or full frequency
>>>broadcasting, train (s) to be in motion at all times. 20-30 second
>>>messages
>>>that would also combine a message to be aware that a locomotive (at speed)
>>>will be flying by the at grade crossings.
>>>
>>>Comments?
>>
>> Tracks across Lake Ponchartrain fell in.
>>
>> Granted they were put back in service faster than anything the
>> government had connection to.
>
>Why a loco anyway? It would appear to be the mistaken assumption that
>anything that big must have power to burn on anything plugged in by a user.
>Not the case - the power from a loco is, not surprisingly, applied to the
>tracks.

Actually, it's not.

What made you bring up tracks anyway -- my reference to the
tracks on the lake falling in? My point was that the locomotive is
going nowhere there aren't usable tracks.

On a diesel-electric locomotive, the generator's output is
applied, not to the tracks as you seem to think, but rather through
control circuitry to the stator around the axle. It's rather amusing
to see a repair yard worker with a set of wheels-and-axle (they're all
one single piece, in case you didn't know) clamp a stator around the
axle, connect a battery with a pair of short jumper cables and walk
the whole arrangement across a concrete floor as though he were
walking the family dog.

BTW, at 4,000+ horsepower, you could plug in nearly anything a
user might want, given proper appliances and the right plug. :-)

> The electric generators used for powering gear other than the
>train's vitals are not high power.
>
>Ken
>

1762. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 09:58:00 UTC
From: kashe@sonic.net
Message-ID: <pbk4k1tgu2p985sig46fqr1edle6rd1vac@4ax.com>
Source record: 69509
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Mon, 03 Oct 2005 16:31:58 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 03 Oct 2005 23:09:59 GMT, kashe@sonic.net wrote:
>
>>On Sun, 02 Oct 2005 21:26:48 -0700, Richard Clark <kb7qhc@comcast.net>
>>wrote:
>>
>>>On Mon, 03 Oct 2005 03:56:24 GMT, kashe@sonic.net wrote:
>>>
>>>> ISP location != subscriber location. One subscriber is in New
>>>>Zealand.
>>>
>>>Trying to convince us you pay trans-oceanic toll charges for a modem
>>
>> Who said modem?
>I did. Look at the attribution line above.

I said subscriber. You jumped to the conclusion he was on
dialup.

>>
>>>hookup?
>>
>> One subscriber != me.
>(More than one subscriber != you) == so what?

You, fool, chose to assume the one sunscriber was me, as in "
... _you_ pay trans-oceanic toll charges".

>>
>> And being in New Zealand has you/them/whomever offering:
>>
>> ... an incomplete sentence?
>Now that you interjected an incomplete sentence into it.
>>
>>>>>> I'm not hearing any interest in turning streets near me into
>>>>>>canals.
>>>
>>>Yeh - sure.
>>
>> Damn straight.
>Telling us you "might" hear interest in turning streets near you into
>canals? Might not? - newsflash! Taking I-5 south to I-10 east, you

>are 2274 miles or more from even a remote chance with respect to New
>Orleans.

Christ -- you can't even parse a sentence -- give up.

1763. Re: Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 11:47:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dhtq59$kk6$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69510

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:0au813-9eg.ln1@p400bob.personal.cox.net...
> Mmm okay, well considering the rest of the feedline is RG58 I guess
the
> matching section has less loss per unit length! <grin> (The Q
section is
> 3 point something metres long - 1/4 wave at 0.66 vf)
>
> I havent been playing with HF that long. I must admit though that I
tend
> to ignore the losses that I would worry a lot about at VHF/UHF.
>
> Oh BTW I tried one of your pgms under Linux Wine the other day. Dies
> with some kind of DOS memory alloc error or something. I'll make a
note
> of it next time and do a little research if your interested.
>
> Cheers Bob
>
> Reg Edwards wrote:
>
> > Yes, that works OK. You have acheived your objective.
> >
> > My only comment is that the inner coaxial conductors are very thin
and
> > depending on length they may be a little lossy. You could use a
> > twisted pair of thicker wires insulated with thin plastic which
would
> > have approximately the same 100-ohm impedance. The actual
impedance is
> > not very critical.
> >
> > This would also eliminate stray capacitance of the coax outer
> > conductors to their surroundings. Although that is not likely to
> > cause much trouble anyway.

==========

Regarding Linux.

There's little or nothing you can do about it. And I'm afraid, sooner
or later, future versions of Dos/Windows may not be able to run my
programs.

Just don't throw away your old computer. ;o)

Reg, G4FGQ

1764. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 11:52:09 UTC
From: chuck <nospam@nospam.net>
Message-ID: <J1u0f.7942$vw6.5655@newsread1.news.atl.earthlink.net>
Source record: 69511

Jerry,

The 10 volt DC wall wart is unfiltered and the designated voltage is 10
vdc rms? So it would be supplying 14.1 volts peak?

Trying to understand how the 10 volt supply will charge a 12 volt battery.

Thanks.

Chuck

Jerry Martes wrote:
> "Rod Maupin" <gridman@ywave.com> wrote in message
> news:11k3j0s7dujl92a@corp.supernews.com...
>
>>I posted this on another group, but you all seem really smart here.
>>
>>I have a military radio (PRC-1099) and a battery. I want to buy a power
>>supply that will power the radio but which can also be used to charge the
>>battery. The radio needs a 12V power supply to run. The battery is a
>>lead-calcium type, and is supposed to be charged at 1A for 5 to 6 hours.
>>
>>Buying a 12V power supply is easy, but do supplies normally have a
>>variable current output? I am not an authority on power supplies or
>>charging batteries, so I need some help here.
>>
>>Thanks,
>>
>>Rod KI7CQ
>
>
> Rod
>
> For what reason is it needed to require the battery to be charged within 6
> hours? If it is practical to charge the battery "overnight", the
> requirements could be much less expensive.
> There is alot-alot of information on the Internet about charging lead-acid
> batteries. The lead-Calcium is the type cell commonly used in most
> automotive autos today.
> If this was my radio, I'd use a wall wart with a 12 volt lamp in series
> between the wall wart and the battery. . A 10 volt DC, 1 amp wall wart
> would probably be close to proper for this radio. The series lamp will
> limit the charge rate.
>
> If the battery terminal voltage is restricted to being no higher than 14.8
> volts,the battery will not boil off its electrolyte.

>
> Jerry
>
>

1765. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 12:26:40 UTC
From: whinyslit_lloydie@yahoo.com
Message-ID: <1128428800.774055.151240@g14g2000cwa.googlegroups.com>
Source record: 69512
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Uncle Turd wrote:
> On Mon, 03 Oct 2005 23:10:43 GMT, kashe@sonic.net wrote:
>
> >On Mon, 03 Oct 2005 14:30:55 -0400, Uncle Ted <malican40@verizon.com>
> >wrote:
> >
> >>On Mon, 03 Oct 2005 06:51:22 GMT, kashe@sonic.net wrote:
> >>
> >>
> >>>>>> As written, they beg to be read as an incomplete syllogism.
> >>>>
> >>>>In other words, you made the connection up in your head. Typical.
> >>>
> >>> Jesus, another liunatic who thinks he knows all about me.
> >>>Pompous bastard.
> >>
> >>Mr. Pot, meet Mr. Kettle...
> >
> > Persuasive logic there, childish one.
>
> Yeah, right. Like your little one-line snippets of irrefutable wisdom
> are persuading anyone...

Oh, the irony.

1766. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 14:12:19 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndk53e3.1iu.bit-bucket@shell.config.com>
Source record: 69513
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn wrote:
> DHS has proposed a change in scenario. They want an on locomotive alerting
> system that could be commandeered and driven at, near or about a disaster
> site. Everything else stays more or less the same, overbroadcasting on
> local AM/FM, power off the locomotive, selective or full frequency
> broadcasting, train (s) to be in motion at all times. 20-30 second messages
> that would also combine a message to be aware that a locomotive (at speed)
> will be flying by the at grade crossings.
>
> Comments?

And what are these messages suppose to convey?

The target audience already knows it's screwed.

We all (outside the screwed zone) saw the blizzard of useless
"messages" the government(s) issued during and after Katrina.

Just what I need to hear from a locomotive blowing by at 50 mph:

"Hi! We're the government and we are here to help you."

The best that came out of post-Katrina was from self-help and
assistance from non-government organizations. And, the
government even thwarted some of that.

The inmates are running the asylum:

http://www.iht.com/articles/2005/10/02/news/storm.php

Ninety-one thousand tons of ice melting in idling 14-wheelers.

73
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

1767. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 14:19:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <obw0f.356$dB4.26@newssvr12.news.prodigy.com>
Source record: 69514

Jerry Martes wrote:
> If the battery terminal voltage is restricted to being no higher than 14.8
> volts,the battery will not boil off its electrolyte.

I float my deep-discharge marine backup battery on my Astron
13.6 vdc power supply. If AC fails, I hardly notice it.
--
73, Cecil, http://www.qsl.net/w5dxp

1768. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 14:33:52 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <kpw0f.45442$ib1.8046@tornado.ohiordc.rr.com>
Source record: 69515
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Like I said in another thread, "Emergency" implies IMMEDIATE (not planned) danger to life, limb, or property. It seems that, in your proposal, you are PLANNING to use these frequencies instead of more appropriate ones. I would think that you need to create (and supply) a system that is isolated from broadcast frequencies.

Wayne-
(KC8UIO)
"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message news:1lihotn31d6fk.a79lqxn15md6$.dlg@40tude.net...
> DHS has proposed a change in scenario. They want an on locomotive alerting
> system that could be commandeered and driven at, near or about a disaster
> site. Everything else stays more or less the same, overbroadcasting on
> local AM/FM, power off the locomotive, selective or full frequency
> broadcasting, train (s) to be in motion at all times. 20-30 second
> messages
> that would also combine a message to be aware that a locomotive (at speed)
> will be flying by the at grade crossings.
>
> Comments?
> --
> Drop the alphabet for email

1769. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 14:51:49 UTC
From: "John Doe"
Message-ID: <434296fe$0$29450$afc38c87@news.optusnet.com.au>
Source record: 69516
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Durrrrrr,
Can anyone spell EAS
http://www.fcc.gov/eb/eas/

"John Doe" <@127.0.0.1> wrote in message
news:4341f644$0$22741$afc38c87@news.optusnet.com.au...
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:6893k1tt0c3ccre5aus6ucrc1n7h14rhmo@4ax.com...
> > On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
> > <abcarisilverstein@yahoo.comxyz> wrote:
> > >Comments?
> > What a troll.
>
> But Wait,
> There's more!
> Emergency Messaging, over broadcasting on
> AM/FM/SCA/IBOC/Satellite/TV/HDTV/Mobile Phone/
> On Ships to sail to the road accidents,
> on Submarines, Aircraft & Satellites.
> ;-)
>
>

1770. Re: Dipole on a hill? Farther from ground or farther up the hill?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 14:53:25 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <FHw0f.233$E46.138@newssvr23.news.prodigy.net>
Source record: 69517

Lance,
The 'first' thing that comes to mind is to get the antenna
as high as possible. Then theres the 'second' thing that comes
to mind which is which is going to be more practical to do? I'd
go for the highest to start with. Nothing says you can't change
it later.
'Doc

1771. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 14:54:42 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <SIw0f.45446$ib1.5095@tornado.ohiordc.rr.com>
Source record: 69518
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Suggestion: Why don't you also broadcast such "emergency" information over
the entire spectrum of wireless network frequencies? That way, you could
post the information into every Usenet group on the globe. Just like you
have done with these postings.

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:r7evtegkcjgt.kuwb55vmxpjg$.dlg@40tude.net...
> Crossposted to:
>
> rec.radio.amateur.antenna,rec.radio.amateur.misc,rec,radio.amateur.equipment
>
> Novitiate here:
>
> I am learning AM broadcast basics in particular the issues regarding the
> geo-targeted broadcasting of alert messages from moving vehicles. Would
> most appreciate any assistance.
>
> Due to Katrina/Rita, the company I work for has been given the opportunity
> to demonstrate a messaging system that would reach out approximately 1
> mile
> +/- in transmission deliverance. This would be an "overbroadcast" (my
> term)
> in that it would override local AM radio broadcasting to reach into cars,
> trucks etc. In particular, we are working with a stationary site (a
> chemical spill for instance) and an emergency vehicle that would move back
> and forth at and through the site, at up to 70 mph, broadcasting an alert,
> voice and tone message.
>
> Reading about LPAM, this looks technically possible but one concern I have
> is antennae size. A fire truck, for instance, could have an antenna
> mounted
> on its front, and up to 4 feet over the top of its roof, so we might look
> at as much as 20 feet of length. I realize this places us over the 3 meter
> max so one of the ???? is whether LFAM is realistic.
>
> Am I way off base here, can any antennae, fractal or other, or any AM
> antennae technology, be utilized to design an antenna and propagate this
> type of signal?
>
> All comments appreciated.
> --
> Drop the alphabet for email

1772. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:04:13 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11k56fd3oubmsf6@corp.supernews.com>
Source record: 69519

The PRC-1099 manual just says what type of battery to use. When I bought the radio, the battery came with it.

Actually, I was incorrect. The manual was talking about using different battery types, lead-calcium being one of them, but on the battery it has the following information:

On the side

Battery, Rechargeable BB-586/U
Nickel Cadmium, Sealed
13.2 Volts, 4.0 Ampere Hours
At 0.8 Ampere
Bren-Tronics, Inc.
Commack, New York

On the top

Charging Instructions
Recommended charge rate is 1 AMP for 5 to 6 hours. Charging temperature should be 40 deg. F. to 90 deg. F.

Thanks for the help,

Rod KI7CQ

1773. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:12:33 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1jdfi56hxbleu$.vosxjmg436ys.dlg@40tude.net>
Source record: 69520
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 21:41:43 -0000, Dave wrote:

> seems strange, and not very practical.

There is an element of both I agree and the locomotive environment, except in the newer ones, can be a bit hairy. Whether or not the concept is valid, that's for DHS to decide and they already have.

The driving force behind this, imo, is that during NOLA no effort was made to use the RR as a means of evac. Several of the lines offered but FEMA refused. Instead, Carnival made off like a bandit with 1/3 full ships but 3/3 full government pay.

In order to evac, the RR would need to run flat out and with an evac traffic surge, crossings become more critical.
--
Drop the alphabet for email

1774. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:14:53 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <45xvuwnf0a7u.1l4b30s6qnu8s$.dlg@40tude.net>
Source record: 69521
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

> "Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
> news:1lihotn31d6fk.a79lqxn15md6$.dlg@40tude.net...
>> DHS has proposed a change in scenario. They want an on locomotive alerting
>> system that could be commandeered and driven at, near or about a disaster
>> site. Everything else stays more or less the same, overbroadcasting on
>> local AM/FM, power off the locomotive, selective or full frequency
>> broadcasting, train (s) to be in motion at all times. 20-30 second
>> messages
>> that would also combine a message to be aware that a locomotive (at speed)
>> will be flying by the at grade crossings.
>>
>> Comments?

On Tue, 4 Oct 2005 11:15:23 +1300, Ken Taylor wrote:

> Impractical, for the same reasons cited earlier. What's wrong with
> electronic message boards on trailers fitted with sirens and, if deemed
> necessarily, a very large guy with a gun to maintain interest.

Nothing but why not broadcast an alert that a locomotive, especially at
unmarked crossings, is approaching and too supplement other warning
systems?

> You may find that sci.electronic.misc or sci.electronic.design may be more
> relevant, since it's commercial/military and not amateur. Mind you, they may
> also be less polite.....
>
> Ken

Thanks, Ken.

Should I be scared?
--
Drop the alphabet for email

1775. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:16:08 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1qb4l77ysiert.1trkdkytzr9gi$.dlg@40tude.net>
Source record: 69522
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 03 Oct 2005 23:16:33 GMT, kashe@sonic.net wrote:

> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
>
>>DHS has proposed a change in scenario. They want an on locomotive alerting
>>system that could be commandeered and driven at, near or about a disaster
>>site. Everything else stays more or less the same, overbroadcasting on
>>local AM/FM, power off the locomotive, selective or full frequency
>>broadcasting, train (s) to be in motion at all times. 20-30 second messages
>>that would also combine a message to be aware that a locomotive (at speed)
>>will be flying by the at grade crossings.
>>
>>Comments?
>
> Tracks across Lake Ponchartrain fell in.

After Katrine/Rita, yes, not before.

> Granted they were put back in service faster than anything the
> government had connection to.

I was there for a few days, didn't keep up with that.
--
Drop the alphabet for email

1776. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:17:22 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <26p4pwngriu$.c1lcyc4iufja$.dlg@40tude.net>
Source record: 69523
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 12:29:52 +1300, Ken Taylor wrote:

> Why a loco anyway? It would appear to be the mistaken assumption that
> anything that big must have power to burn on anything plugged in by a user.
> Not the case - the power from a loco is, not surprisingly, applied to the
> tracks. The electric generators used for powering gear other than the
> train's vitals are not high power.

Locomotive because of the need for a manual override by the Head Engineer.
CSX claims they can provide access to 1,000 watts.
--
Drop the alphabet for email

1777. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:19:49 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1ld6l994pmuua.r714uw19bb3e$.dlg@40tude.net>
Source record: 69524
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 13:03:57 +1300, Ken Taylor wrote:

> Well, he's not a troll in that he's making it up as he goes - it appears he
> really is hoping to do for his company what he says (source: Google).

I have a clear history for anyone to Google.

> However it's a job which really equates to:
> <Government fleeces tax-payers>
> <Bureaucrat gets hold of budget allocation>
> <Bureaucrat needs to succeed - ie. unload allocation>
> <Ari and co. want to be under the hopper when the jackpot payout commences>

Not too much wrong with that synopsis, Ken.

> A valid way of doing business, but still a crock.
>
> Ken

Indeed it is both. Considering we gave away a central DB technology to
DHS-NOLA, then they failed to use it, we are hoping to make money this time
around *and* that they will get their acts together.
--
Drop the alphabet for email

1778. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:21:41 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <o98qano6zoqq.1xe83iqec4l3h.dlg@40tude.net>
Source record: 69525
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 04 Oct 2005 09:51:46 GMT, kashe@sonic.net wrote:

>>> Tracks across Lake Ponchartrain fell in.
>>>
>>> Granted they were put back in service faster than anything the
>>> government had connection to.
>>
>>Why a loco anyway? It would appear to be the mistaken assumption that
>>anything that big must have power to burn on anything plugged in by a user.
>>Not the case - the power from a loco is, not surprisingly, applied to the
>>tracks.
>
> Actually, it's not.
>
> What made you bring up tracks anyway -- my reference to the
> tracks on the lake falling in? My point was that the locomotive is
> going nowhere there aren't usable tracks.
>
> On a diesel-electric locomotive, the generator's output is
> applied, not to the tracks as you seem to think, but rather through
> control circuitry to the stator around the axle. It's rather amusing
> to see a repair yard worker with a set of wheels-and-axle (they're all
> one single piece, in case you didn't know) clamp a stator around the
> axle, connect a battery with a pair of short jumper cables and walk
> the whole arrangement across a concrete floor as though he were
> walking the family dog.
>
> BTW, at 4,000+ horsepower, you could plug in nearly anything a
> user might want, given proper appliances and the right plug. :-)

This is what we have been led to believe and the schematics are on their
way in. Jeez, if we can't find wattage on these beasts.....
--
Drop the alphabet for email

1779. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:22:40 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1irobe4fi0gn0.1dmiiddo7a6hi.dlg@40tude.net>
Source record: 69326
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 13:26:05 +1000, John Doe wrote:

> But Wait,
> There's more!
> Emergency Messaging, over broadcasting on
> AM/FM/SCA/IBOC/Satellite/TV/HDTV/Mobile Phone/

Actually, this has been accomplished.
--
Drop the alphabet for email

1780. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:24:48 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <11akczykn6y9h$.1b96w6z2bkox.dlg@40tude.net>
Source record: 69327
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 21:44:09 -0400, Fred W4JLE wrote:

> That would be much easier, simply sweep a modulated oscillator across the
> band. With a couple of adjustments it would be easy to emulate a train
> whistle, a somewhat universal warning.

That's a better idea than a tone and what has been proposed is a tone and
an electronic pre-recorded message.

Thanks.
--
Drop the alphabet for email

1781. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:27:44 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1gpauygr8vwj8$.w2r0e8ab7h9a$.dlg@40tude.net>
Source record: 69328
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On 4 Oct 2005 14:12:19 GMT, Allodoxaphobia wrote:

> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn wrote:
>> DHS has proposed a change in scenario. They want an on locomotive alerting
>> system that could be commandeered and driven at, near or about a disaster
>> site. Everything else stays more or less the same, overbroadcasting on
>> local AM/FM, power off the locomotive, selective or full frequency
>> broadcasting, train (s) to be in motion at all times. 20-30 second messages
>> that would also combine a message to be aware that a locomotive (at speed)
>> will be flying by the at grade crossings.
>>
>> Comments?
>
> And what are these messages suppose to convey?

Primarily two things, alerting pre-evac and at grade crossing alerts that a
high speed locomotive is approaching.

> We all (outside the screwed zone) saw the blizzard of useless
> "messages" the government(s) issued during and after Katrina.

And a blizzard of useful ones as well.

--
Drop the alphabet for email

1782. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:30:02 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1vxmfnl5tqwf4$.uu9c4c3tmrt0.dlg@40tude.net>
Source record: 69329
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

> "Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
> news:c9gqhrx7nggh$.1hmwsp16r4gsh.dlg@40tude.net...
>> On Mon, 3 Oct 2005 12:01:14 -0400, Fred W4JLE wrote:
>>
>>> In that case, simply modify the sign to "Tune to 560, it could save your
>>> life" and use a discrete frequency low power transmitter.
>>
>> I assume you mean to take up an unused local channel? Or to bargain for
>> time on a used one?
>>
>> Both ideas make sense.
>> --
>> Drop the alphabet for email

On Mon, 3 Oct 2005 21:47:29 -0000, Dave wrote:

> if this is for real time notification you don't have time to bargain or to
> find an unused channel... and who would listen to you anyway if it was
> unused? how often do you turn the knob on your car radio??

Often actually and I agree about the unused channel, at first blush

> what about the emergency broadcast system? that would seem to be the
> 'proper' method of emergency notification, its already set up for all sorts
> of local, regional, and national notifications.

The EBS is voluntary, this is not.
--
Drop the alphabet for email

1783. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:31:14 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1bu026rqusoml.l5p3hd8ajkqn.dlg@40tude.net>
Source record: 69330
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 3 Oct 2005 17:58:33 -0400, Fred W4JLE wrote:

> There are a couple of frequiencies for unlicensed low power am stations. You
> can see them in use by real estate folks selling houses. There are no
> commercial stations on the frequency.

Yes, and at Disney World, etc. This is a very doable idea and may well
solve FCC/DoD issues.
--
Drop the alphabet for email

1784. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:33:14 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1nsajgzh7rq53$.n9o16txa4x4a$.dlg@40tude.net>
Source record: 69331

>> Excellent point, in my research I saw this handoff or spectrum management
>> authority of the DoD and it makes sense. This is a serious, additional
>> consideration and is all the more reason to get the DHS' blessings.
>>
>> Thanks.

On Mon, 03 Oct 2005 17:55:13 -0500, David G. Nagel wrote:

> Actually the DOD does not have any authority over radio spectrum. There
> are two federal agencies that do. One is the FCC, which we all know and
> love, the other is NTIA, the National Telecomunications Information
> Agency. NITA controls all federal radio frequencies. Since the DOD is a
> Federal Agency their frequencies are controled by NTIA the same as the
> FBI, CIA Secret Service, Dept of Homeland Security and any other federal
> alphabet soup agency.
>
> Dave N
> a FCC and a NTIA user

Know of the NTIA but I believe that what is the reality is that the mil
gets first dibs on frequencies, then hands off the rest and in a state of
national emerg, they can pretty much takeover the airwaves.
--
Drop the alphabet for email

1785. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:37:22 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <tm6jk61v0hvs$.4hxxhur4pf5u.dlg@40tude.net>
Source record: 69332
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Hi Ari

I always wonder whether broadcast at the most common IF frequencies
would be a viable alternative? (eg 455khz for AM) Legality issues aside
of course... This would make frequency selection a little easier to
engineer. You wouldnt have to divide your power budget into many
operating frequencies as well. Problem is that you'd need a lot higher
ERP especially since car mounted radios tend to be better shielded than
portables. (You'll need to experiment some)

On 3 Oct 2005 18:52:41 -0700, hhc314@yahoo.com wrote:

> Wonder no longer, because broadcasing at IF frequencies has been for
> year the standard in the US. In spite of some rather silly speculative
> posts, this mechanism has proved itself for more than 10-years here.
>
> In a confined space such as a tunnel, a transmitter of 10-watts more
> than sufficint to get the job done, and using nothing more
> sophisticated than a simple wire radiator running the length of the
> tunnel.
>
> In Boston, we also retransmit commercial radio broadcasts into our
> tunnels, but that requires equipment dedicated to each radio channel
> that we re-broadcast, and that becomes very costly after 10 stations or
> so, hence there is a limit.
>
> The real challenge is in maintaining emergency communications to the
> outside from within our tunnels. All are serviced by the traditional
> leaky coax that runs along the top of the tunnel, but considering that
> all of these emergency services operate on their own indepdendent
> frequency bands, so servicing them simulteously becomes somwhat
> problematic. particularly when hand-held, low power devices enter the
> big picture.
>
> Harry C.

Problematic? That would be an understatement.
--
Drop the alphabet for email

1786. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:38:04 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <gtj6zf6ou3fv.s2rsv1mhe6kr$.dlg@40tude.net>
Source record: 69333
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 14:57:01 +1300, Ken Taylor wrote:

> All agreed, but that is in a tunnel, which has the advantage of not having
> to overcome the still-received commercial stations. The OP wants to do this
> out in the open, anywhere, any time. He also wanted to do it while driving
> at high speed for some reason, but I think he's quietly shelved that part of
> the idea.
>
> Cheers.
>
> Ken

MOF, it has reared its ugly hi speed head again.
--
Drop the alphabet for email

1787. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:38:44 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1qf1chehdlfrr.ermviox2lja1$.dlg@40tude.net>
Source record: 69334
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 03 Oct 2005 14:31:36 -0700, Richard Clark wrote:

> On Mon, 3 Oct 2005 16:33:52 -0400, Ari Silversteinn
> <abcarisilverstein@yahoo.comxyz> wrote:
>>OK, so we supply the amplification.
>
> OK, this is just a re-run of previous speculations. You don't know
> the depth of your energy budget crisis, do you?

Open coffers.

--
Drop the alphabet for email

1788. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:51:50 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <g31e2e1u2j80.s7dxljcbxf2s$.dlg@40tude.net>
Source record: 69335
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 00:51:49 +1000, John Doe wrote:

> Durrrrrr,
> Can anyone spell EAS
> http://www.fcc.gov/eb/eas/

The EAS is designed to provide the President with a means to address the
American people in the event of a national emergency.
--
Drop the alphabet for email

1789. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:52:53 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <mah7mjs7s37w.18ed2dgq49p30.dlg@40tude.net>
Source record: 69336
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 04 Oct 2005 14:33:52 GMT, Wayne P. Muckleroy wrote:

> Like I said in another thread, "Emergency" implies IMMEDIATE (not planned)
> danger to life, limb, or property. It seems that, in your proposal, you are
> PLANNING to use these frequencies instead of more appropriate ones. I would
> think that you need to create (and supply) a system that is isolated from
> broadcast frequencies.
>
> Wayne-
> (KC8UIO)

It's not my call, Wayne, it's the client driving the systems.
--
Drop the alphabet for email

1790. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 15:54:30 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1mf7yuoy4k570$.nphmoya17pjw$.dlg@40tude.net>
Source record: 69337
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 04 Oct 2005 14:54:42 GMT, Wayne P. Muckleroy wrote:

> Suggestion: Why don't you also broadcast such "emergency" information over
> the entire spectrum of wireless network frequencies? That way, you could
> post the information into every Usenet group on the globe. Just like you
> have done with these postings.

Usenet being a place that only a few people access, aside from that, it's
not a bad idea, actually.
--
Drop the alphabet for email

1791. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 16:31:26 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <q7y0f.148$i%.93@fed1read07>
Source record: 69338

Since it is a Nicad -- why not use a 13.5 volt power supply with a constant
current regulator chip ??

Check National's chips with google

--
CL -- I doubt, therefore I might be !

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11k56fd3oubmsf6@corp.supernews.com...
> The PRC-1099 manual just says what type of battery to use. When I bought
> the radio, the battery came with it.
>
> Actually, I was incorrect. The manual was talking about using different
> battery types, lead-calcium being one of them, but on the battery it has
> the following information:
>
> On the side
> ------------
> Battery, Rechargeable BB-586/U
> Nickel Cadmium, Sealed
> 13.2 Volts, 4.0 Ampere Hours
> At 0.8 Ampere
> Bren-Tronics, Inc.
> Commack, New York
>
> On the top
> -----------
> Charging Instructions
> Recommended charge rate is 1 AMP for 5 to 6 hours. Charging temperature
> should be 40 deg. F. to 90 deg. F.
>
>
> Thanks for the help,
>
> Rod KI7CQ
>
>
>
>

1792. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 16:31:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fbb5k196rs0b33t2c7ap01laj8c515jpde@4ax.com>
Source record: 69339
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 04 Oct 2005 09:58:00 GMT, kashe@sonic.net wrote:

>>>>>>> I'm not hearing any interest in turning streets near me into
>>>>>>>canals.
>>>>
>>>>Yeh - sure.
>>>
>>> Damn straight.
>>Telling us you "might" hear interest in turning streets near you into
>>canals? Might not? - newsflash! Taking I-5 south to I-10 east, you
>>are 2274 miles or more from even a remote chance with respect to New
>>Orleans.
>
> Christ -- you can't even parse a sentence -- give up.

Seems you've drawn a blank then too. On your own sentence which is
the point I made significant. That you missed on both accounts is
doubly indicting. Do you have a relative in Texas that is sweating
bullets now?

1793. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 17:20:05 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <355bc$4342b9fb$97d558d8$8735@ALLTEL.NET>
Source record: 69340

You might want to point out that if you do not modify the Aston, such
practice will cause a problem with in the Aston.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:obw0f.356$dB4.26@newssvr12.news.prodigy.com...
> Jerry Martes wrote:
> > If the battery terminal voltage is restricted to being no higher than
14.8
> > volts,the battery will not boil off its electrolyte.
>
> I float my deep-discharge marine backup battery on my Astron
> 13.6 vdc power supply. If AC fails, I hardly notice it.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

1794. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 17:40:46 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <v-KdnRHYepd7V9_eRVn-iQ@comcast.com>
Source record: 69344
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Richard Clark wrote:

SNIPPED

> Seems you've drawn a blank then too. On your own sentence which is
> the point I made significant. That you missed on both accounts is
> doubly indicting. Do you have a relative in Texas that is sweating
> bullets now?

Richard, Richard, Richard! :-(Read your last sentence. Do you see
the error??

"Do you have a relative in Texas that is sweating bullets now?"

There is a GLARING ERROR in it!!!!! It should be ...
"Do you have a relative in Texas WHO is sweating bullets now?"

A relative is a PERSON not a THING: a WHO not a THAT!!

Tch, Tch,

1795. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 17:47:51 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <bfz0f.222$LI2.83@trnddc04>
Source record: 69341

Hi Chuck

Yeah, the wall warts are marked with output voltages that are only approximate. The real test of the wall wart would require that it be hooked up to charge a capacitor. That will indicate the maximum voltage to which the battery will charge.
The average Lead-Acid, Calcium, 12 volt battery will require about 14.8 volts to begin boiling out its electrolyte.
Charging batteries might not be "rocket science", but it can get complicated. There is so much good info available on the Internet that it would be wrong of me to pretend that I'm an expert only because I understand a little about the subject.
A wall wart, marked as about 9 or 10 volts DC with a 12 volt bulb in series with it, can be used as a decent float charger. I'll assume that anyone reading this group will see the technology behind this low cost, readily available system.

Jerry

"chuck" <nospam@nospam.net> wrote in message
news:J1u0f.7942$vw6.5655@newsread1.news.atl.earthlink.net...
> Jerry,
>
> The 10 volt DC wall wart is unfiltered and the designated voltage is 10
> vdc rms? So it would be supplying 14.1 volts peak?
>
> Trying to understand how the 10 volt supply will charge a 12 volt battery.
>
> Thanks.
>
> Chuck
>
> Jerry Martes wrote:
>> "Rod Maupin" <gridman@ywave.com> wrote in message
>> news:11k3j0s7dujl92a@corp.supernews.com...
>>
>>>I posted this on another group, but you all seem really smart here.
>>>
>>>I have a military radio (PRC-1099) and a battery. I want to buy a power
>>>supply that will power the radio but which can also be used to charge the
>>>battery. The radio needs a 12V power supply to run. The battery is a
>>>lead-calcium type, and is supposed to be charged at 1A for 5 to 6 hours.
>>>
>>>Buying a 12V power supply is easy, but do supplies normally have a
>>>variable current output? I am not an authority on power supplies or

>>>charging batteries, so I need some help here.
>>>
>>>Thanks,
>>>
>>>Rod KI7CQ
>>
>>
>> Rod
>>
>> For what reason is it needed to require the battery to be charged
>> within 6 hours? If it is practical to charge the battery "overnight",
>> the requirements could be much less expensive.
>> There is alot-alot of information on the Internet about charging
>> lead-acid batteries. The lead-Calcium is the type cell commonly used in
>> most automotive autos today.
>> If this was my radio, I'd use a wall wart with a 12 volt lamp in series
>> between the wall wart and the battery. . A 10 volt DC, 1 amp wall wart
>> would probably be close to proper for this radio. The series lamp will
>> limit the charge rate.
>>
>> If the battery terminal voltage is restricted to being no higher than
>> 14.8 volts,the battery will not boil off its electrolyte.
>>
>> Jerry
>>

1796. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 18:13:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <fDz0f.726$we3.149@newssvr13.news.prodigy.com>
Source record: 69342

Fred W4JLE wrote:
> You might want to point out that if you do not modify the Aston, such
> practice will cause a problem with in the Aston.

Thanks Fred, I didn't modify the Astron but it and my solar
panel are ORed into the battery through big Schottky diodes.
--
73, Cecil, http://www.qsl.net/w5dxp

1797. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 18:30:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ca9cd$4342ca8d$97d558d8$15289@ALLTEL.NET>
Source record: 69343

The 723 in the Astron will eventually fry when you remove AC power. A simple fix is off of pin 4 that normally goes to the wiper of the voltage adjustment, cut the land and bridge with a 10K 1/2 watt resistor.

I have probably modified over 50 of them for our EOC sites and have never lost a PS.

"Cecil Moore" <mycall@arrl.net> wrote in message news:fDz0f.726$we3.149@newssvr13.news.prodigy.com...
> Fred W4JLE wrote:
> > You might want to point out that if you do not modify the Aston, such
> > practice will cause a problem with in the Aston.
>
> Thanks Fred, I didn't modify the Astron but it and my solar
> panel are ORed into the battery through big Schottky diodes.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

1798. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 18:54:49 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ZdA0f.8755$oO2.4492@newssvr27.news.prodigy.net>
Source record: 69345

Fred W4JLE wrote:
> The 723 in the Astron will eventually fry when you remove AC power.

Even if it is feeding the battery through a diode?
--
73, Cecil, http://www.qsl.net/w5dxp

1799. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:04:25 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <_mA0f.15977$iM2.1314352@news.xtra.co.nz>
Source record: 69346
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:gtj6zf6ou3fv.s2rsv1mhe6kr$.dlg@40tude.net...
> On Tue, 4 Oct 2005 14:57:01 +1300, Ken Taylor wrote:
>
>> All agreed, but that is in a tunnel, which has the advantage of not
>> having
>> to overcome the still-received commercial stations. The OP wants to do
>> this
>> out in the open, anywhere, any time. He also wanted to do it while
>> driving
>> at high speed for some reason, but I think he's quietly shelved that part
>> of
>> the idea.
>>
>> Cheers.
>>
>> Ken
>
> MOF, it has reared its ugly hi speed head again.
> --
Sorry, what's 'MOF'?

Ken

1800. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:07:40 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <1qA0f.15978$iM2.1314092@news.xtra.co.nz>
Source record: 69347
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1bu026rqusoml.l5p3hd8ajkqn.dlg@40tude.net...
> On Mon, 3 Oct 2005 17:58:33 -0400, Fred W4JLE wrote:
>
>> There are a couple of frequiencies for unlicensed low power am stations.
>> You
>> can see them in use by real estate folks selling houses. There are no
>> commercial stations on the frequency.
>
> Yes, and at Disney World, etc. This is a very doable idea and may well
> solve FCC/DoD issues.
> --
When was the last time you listened to one of those frequencies? It won't
get the message out where it's needed.

Ken

1801. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:09:19 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <ArA0f.15979$iM2.1314352@news.xtra.co.nz>
Source record: 69348
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1qf1chehdlfrr.ermviox2lja1$.dlg@40tude.net...
> On Mon, 03 Oct 2005 14:31:36 -0700, Richard Clark wrote:
>
>> On Mon, 3 Oct 2005 16:33:52 -0400, Ari Silversteinn
>> <abcarisilverstein@yahoo.comxyz> wrote:
>>>OK, so we supply the amplification.
>>
>> OK, this is just a re-run of previous speculations. You don't know
>> the depth of your energy budget crisis, do you?
>
> Open coffers.
>
> --
He wasn't referring to your finance budget, but your energy budget. I
hesitate to say it can't be done in any practical sense, but that's my
thought. The idea of one poster to transmit on the IF's is a good one but I
didn't suggest that because you'll also kill your emergency services comm's.

Incidentally, do you plan to have every loco in the US fitted out or are you
going to fly the loco's to the incident site to do their stuff?

Cheers.

Ken

1802. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:12:56 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <YuA0f.15981$iM2.1314770@news.xtra.co.nz>
Source record: 69349
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:mah7mjs7s37w.18ed2dgq49p30.dlg@40tude.net...
> On Tue, 04 Oct 2005 14:33:52 GMT, Wayne P. Muckleroy wrote:
>
>> Like I said in another thread, "Emergency" implies IMMEDIATE (not
>> planned)
>> danger to life, limb, or property. It seems that, in your proposal, you
>> are
>> PLANNING to use these frequencies instead of more appropriate ones. I
>> would
>> think that you need to create (and supply) a system that is isolated from
>> broadcast frequencies.
>>
>> Wayne-
>> (KC8UIO)
>
> It's not my call, Wayne, it's the client driving the systems.
> --
But you've already changed it! Initially you said it was to be used at an
emergency site, and now you're saying it's to warn of a high-speed train
cometh. What the hell gives?

Ken

1803. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:15:24 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <gxA0f.15982$iM2.1314815@news.xtra.co.nz>
Source record: 69350
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

<kashe@sonic.net> wrote in message
news:aoi4k1l3cj86fg3vjnadnmepbcvvj8anjg@4ax.com...
> On Tue, 4 Oct 2005 12:29:52 +1300, "Ken Taylor" <ken123@xtra.co.nz>
> wrote:
>
>><kashe@sonic.net> wrote in message
>>news:mre3k15n9721h4kt0bmr019vvosggdohlp@4ax.com...
>>> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn
>>> <abcarisilverstein@yahoo.comxyz> wrote:
>>>
>>>>DHS has proposed a change in scenario. They want an on locomotive
>>>>alerting
>>>>system that could be commandeered and driven at, near or about a
>>>>disaster
>>>>site. Everything else stays more or less the same, overbroadcasting on
>>>>local AM/FM, power off the locomotive, selective or full frequency
>>>>broadcasting, train (s) to be in motion at all times. 20-30 second
>>>>messages
>>>>that would also combine a message to be aware that a locomotive (at
>>>>speed)
>>>>will be flying by the at grade crossings.
>>>>
>>>>Comments?
>>>
>>> Tracks across Lake Ponchartrain fell in.
>>>
>>> Granted they were put back in service faster than anything the
>>> government had connection to.
>>
>>Why a loco anyway? It would appear to be the mistaken assumption that
>>anything that big must have power to burn on anything plugged in by a
>>user.
>>Not the case - the power from a loco is, not surprisingly, applied to the
>>tracks.
>
> Actually, it's not.
>
> What made you bring up tracks anyway -- my reference to the
> tracks on the lake falling in? My point was that the locomotive is
> going nowhere there aren't usable tracks.
>
> On a diesel-electric locomotive, the generator's output is
> applied, not to the tracks as you seem to think, but rather through

> control circuitry to the stator around the axle. It's rather amusing
> to see a repair yard worker with a set of wheels-and-axle (they're all
> one single piece, in case you didn't know) clamp a stator around the
> axle, connect a battery with a pair of short jumper cables and walk
> the whole arrangement across a concrete floor as though he were
> walking the family dog.
>
> BTW, at 4,000+ horsepower, you could plug in nearly anything a
> user might want, given proper appliances and the right plug. :-)
>
>
>
>> The electric generators used for powering gear other than the
>>train's vitals are not high power.
>>
>>Ken
>>
4,000hp is a lot but not enough to swamp all the broadcast radios, which is
what the OP wants.

Incidentally my reference to tracks was just that the loco is made to move,
not power a boom-box. Like your anecdote though. :-)

Cheers.

Ken

1804. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:17:17 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11k5l9tnld8mp85@corp.supernews.com>
Source record: 69351
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

I can't find the part of the FCC regs that provide these frequencies for unlicensed stations. Can anybody share the chapter and verse?

Jim

>>> There are a couple of frequiencies for unlicensed low power am stations.
>>> You
>>> can see them in use by real estate folks selling houses. There are no
>>> commercial stations on the frequency.
>>
>> Yes, and at Disney World, etc. This is a very doable idea and may well
>> solve FCC/DoD issues.

1805. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:19:05 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <JAA0f.15983$iM2.1314512@news.xtra.co.nz>
Source record: 69352
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:45xvuwnf0a7u.1l4b30s6qnu8s$.dlg@40tude.net...
>
>
>> "Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
>> news:1lihotn31d6fk.a79lqxn15md6$.dlg@40tude.net...
>>> DHS has proposed a change in scenario. They want an on locomotive
>>> alerting
>>> system that could be commandeered and driven at, near or about a
>>> disaster
>>> site. Everything else stays more or less the same, overbroadcasting on
>>> local AM/FM, power off the locomotive, selective or full frequency
>>> broadcasting, train (s) to be in motion at all times. 20-30 second
>>> messages
>>> that would also combine a message to be aware that a locomotive (at
>>> speed)
>>> will be flying by the at grade crossings.
>>>
>>> Comments?
>
> On Tue, 4 Oct 2005 11:15:23 +1300, Ken Taylor wrote:
>
>> Impractical, for the same reasons cited earlier. What's wrong with
>> electronic message boards on trailers fitted with sirens and, if deemed
>> necessarily, a very large guy with a gun to maintain interest.
>
> Nothing but why not broadcast an alert that a locomotive, especially at
> unmarked crossings, is approaching and too supplement other warning
> systems?
>
>> You may find that sci.electronic.misc or sci.electronic.design may be
>> more
>> relevant, since it's commercial/military and not amateur. Mind you, they
>> may
>> also be less polite.....
>>
>> Ken
>
> Thanks, Ken.
>
> Should I be scared?
> --
No, but forewarned is fore armed. :-) Your spec's are a bit nebulous, to say

the least. I'm not accusing you of having no clue, but I'm damn glad DHS doesn't use tax-payer funds from this part of the world. This is an exercise in getting rid of funds grabbed during a crisis, when the opportunity arose to expand the empire. Standard bureaucratic function.

Cheers.

Ken

1806. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:26:12 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <pHA0f.15988$iM2.1314977@news.xtra.co.nz>
Source record: 69353
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1ld6l994pmuua.r714uw19bb3e$.dlg@40tude.net...
> On Tue, 4 Oct 2005 13:03:57 +1300, Ken Taylor wrote:
>
>> Well, he's not a troll in that he's making it up as he goes - it appears
>> he
>> really is hoping to do for his company what he says (source: Google).
>
> I have a clear history for anyone to Google.
>
Sure do, I was pointing that out. Hence I don't think you're a troll.

>> However it's a job which really equates to:
>> <Government fleeces tax-payers>
>> <Bureaucrat gets hold of budget allocation>
>> <Bureaucrat needs to succeed - ie. unload allocation>
>> <Ari and co. want to be under the hopper when the jackpot payout
>> commences>
>
> Not too much wrong with that synopsis, Ken.
>
>> A valid way of doing business, but still a crock.
>>
>> Ken
>
> Indeed it is both. Considering we gave away a central DB technology to
> DHS-NOLA, then they failed to use it, we are hoping to make money this
> time
> around *and* that they will get their acts together.
> --
I'm really not criticizing you, per se, but I don't think the concept is
well thought out.

You refer elsewhere to this being an auxiliary warning system on a loco -
level crossing lights/bells/boom gates not enough? They usually are, so why
the worry now? (Okay, we know it's the moolah....).

You also refer to 1,000W being available - it's just not enough for what you
want to do. Period.

Good luck with them getting their act (I would have said something else!)
together, but don't bet the bank on it. I'm actually an ex-bureaucrat myself
and to call me cynical of governmental abilities would be an understatement.
But if you do come up with something useful (I bet it ends up being a

spin-off rather than the initial concept seen here), I hope you get something out of it.

Cheers.

Ken

1807. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:44:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <asl5k1d7203vpfgo42ntp7trfttvd7h5p2@4ax.com>
Source record: 69354
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 04 Oct 2005 13:40:46 -0400, Amos Keag <A.K01@comcast.net>
wrote:
>A relative is a PERSON not a THING: a WHO not a THAT!!
Yes, it requires a leap of faith to make that presumption of ANY
relationship - this requires independent confirmation of the DNA
status of our Texan.

If they strapped him (sic) into ol' sparky tomorrow morning, would we
have toast, or bacon?

1808. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 19:55:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dvm5k155pdkhfkgnce5805p2o7jdcqut8c@4ax.com>
Source record: 69355
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 08:09:19 +1300, "Ken Taylor" <ken123@xtra.co.nz>
wrote:

>"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
>news:1qf1chehdlfrr.ermviox2lja1$.dlg@40tude.net...
>> On Mon, 03 Oct 2005 14:31:36 -0700, Richard Clark wrote:
>>
>>> On Mon, 3 Oct 2005 16:33:52 -0400, Ari Silversteinn
>>> <abcarisilverstein@yahoo.comxyz> wrote:
>>>>OK, so we supply the amplification.
>>>
>>> OK, this is just a re-run of previous speculations. You don't know
>>> the depth of your energy budget crisis, do you?
>>
>> Open coffers.
>>
>> --
>He wasn't referring to your finance budget, but your energy budget. I
>hesitate to say it can't be done in any practical sense, but that's my
>thought.

Hi Ken,

His terse reply refers to the public coffers - troughs - open for this fabulous pork barrel feast. You know, crack dealer capitalism.

Nothing has to actually work, or be useful, or even be used. It just has to generate paper in one direction, and cash in the other. Ari is mining us as a dry run for all the terms, shortfalls, and fits to the jigsaw to rummage up into a proposal.

73's
Richard Clark, KB7QHC

1809. Re: Military Radio Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 20:03:43 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <820b5$4342e055$97d558d8$25308@ALLTEL.NET>
Source record: 69356

No, but then again you can save the cost of the diodes and the associated voltage drop when operating from the power supply.

My concern was that someone with less knowledge than yourself would simply parallel the battery with the Astron power supply.

Your initial message did not have a caveat for those that thought it might be that simple.

"Cecil Moore" <mycall@arrl.net> wrote in message news:ZdA0f.8755$oO2.4492@newssvr27.news.prodigy.net...
> Fred W4JLE wrote:
> > The 723 in the Astron will eventually fry when you remove AC power.
>
> Even if it is feeding the battery through a diode?
> --
> 73, Cecil, http://www.qsl.net/w5dxp

1810. Re: Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 20:04:01 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <hq3b13-e9a.ln1@fimbul.myth>
Source record: 69357

On Mon, 03 Oct 2005 19:17:36 -0500,
Bob Bob <bob3bob3@cox.net> wrote:
> Mmm okay, well considering the rest of the feedline is RG58 I guess the
> matching section has less loss per unit length! <grin> (The Q section is
> 3 point something metres long - 1/4 wave at 0.66 vf)
>
> I havent been playing with HF that long. I must admit though that I tend
> to ignore the losses that I would worry a lot about at VHF/UHF.
>
> Oh BTW I tried one of your pgms under Linux Wine the other day. Dies
> with some kind of DOS memory alloc error or something. I'll make a note
> of it next time and do a little research if your interested.
>
> Cheers Bob
>

try dosemu instead. Wine won't work well with programs that try to
directly access memory via INTs and such.

<http://www.dosemu.org/>

Also, there's freedos, but I haven't used that seriously.

--
Jim Richardson http://www.eskimo.com/~warlock
Step by step, day by day, machine by machine, the penguins march forward.

1811. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 20:06:27 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <3v3b13-e9a.ln1@fimbul.myth>
Source record: 69358
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 11:27:44 -0400,
Ari Silversteinn <abcarisilverstein@yahoo.comxyz> wrote:
> On 4 Oct 2005 14:12:19 GMT, Allodoxaphobia wrote:
>
>> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn wrote:
>>> DHS has proposed a change in scenario. They want an on locomotive alerting
>>> system that could be commandeered and driven at, near or about a disaster
>>> site. Everything else stays more or less the same, overbroadcasting on
>>> local AM/FM, power off the locomotive, selective or full frequency
>>> broadcasting, train (s) to be in motion at all times. 20-30 second messages
>>> that would also combine a message to be aware that a locomotive (at speed)
>>> will be flying by the at grade crossings.
>>>
>>> Comments?
>>
>> And what are these messages suppose to convey?
>
> Primarily two things, alerting pre-evac and at grade crossing alerts that a
> high speed locomotive is approaching.
>

they'd be better off with bells and lights at the crossing for the
latter...

>
>> We all (outside the screwed zone) saw the blizzard of useless
>> "messages" the government(s) issued during and after Katrina.
>
> And a blizzard of useful ones as well.
>

wheat from chaff?

--
Jim Richardson http://www.eskimo.com/~warlock
"The three principal virtues of a programmer are Laziness, Impatience, and
Hubris."
-- Larry Wall in den Perl5-Manpages

1812. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 20:09:19 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <effaf$4342e1a5$97d558d8$26195@ALLTEL.NET>
Source record: 69359
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

It can be found under the section that allows a transmitter as long as it is
less than some number of milliwatts per meter.

If you really need the exact section, I will drag out the regs and get it
for you.

"RST Engineering" <jim@rstengineering.com> wrote in message
news:11k5l9tnld8mp85@corp.supernews.com...
> I can't find the part of the FCC regs that provide these frequencies for
> unlicensed stations. Can anybody share the chapter and verse?
>
> Jim
>
>
> >>> There are a couple of frequiencies for unlicensed low power am
stations.
> >>> You
> >>> can see them in use by real estate folks selling houses. There are no
> >>> commercial stations on the frequency.
> >>
> >> Yes, and at Disney World, etc. This is a very doable idea and may well
> >> solve FCC/DoD issues.
>
>

1813. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 20:51:06 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11k5qprf314vs63@corp.supernews.com>
Source record: 69360
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

That is part 15 and it isn't just a couple of frequencies, it is any frequency in the AM broadcast band (and the FM broadcast band, for that matter).

Specifically, 15.219 allows operation on any frequency in the band so long as (a) the input power to the final stage is less than 100 mW and (b) the antenna "system" (radiating element, coax, and ground lead) is less than 3 meters long.

15.221 also allows operation with an unspecified power level into leaky coax with a field strength limitation.

Power is not milliwatts per meter. Power is milliwatts. Field strength (also an allowed measurement) is in volts per meter.

The OP said that there were a "couple of frequiencies(sic)for unlicensed low power am(sic) stations." That implied that there were a couple of frequencies that were unused in the AM band by commercial stations, and I just wanted to have a reference to WHAT they were and WHERE in the regs they were delineated.

Jim

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:effaf$4342e1a5$97d558d8$26195@ALLTEL.NET...
> It can be found under the section that allows a transmitter as long as it
> is
> less than some number of milliwatts per meter.
>
> If you really need the exact section, I will drag out the regs and get it
> for you.
>
> "RST Engineering" <jim@rstengineering.com> wrote in message
> news:11k5l9tnld8mp85@corp.supernews.com...
>> I can't find the part of the FCC regs that provide these frequencies for
>> unlicensed stations. Can anybody share the chapter and verse?
>>
>> Jim
>>
>>
>> >>> There are a couple of frequiencies for unlicensed low power am
> stations.
>> >>> You
>> >>> can see them in use by real estate folks selling houses. There are no
>> >>> commercial stations on the frequency.

>> >>
>> >> Yes, and at Disney World, etc. This is a very doable idea and may well
>> >> solve FCC/DoD issues.
>>
>>
>
>

1814. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 21:17:17 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhurgu$5v8$1@engnntp2.cig.mot.com>
Source record: 69364

"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message
news:MSGID_1=3a167=2f133.0_433e12e6@fidonet.org...
> "Steve Nosko" bravely wrote to "All" (30 Sep 05 16:59:44)
> --- on the heady topic of "Re: Lightning Question"
>
> SN> From: "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com>
> SN> Xref: core-easynews rec.radio.amateur.antenna:217792
>
> SN> "...alternative to the lightning rod. ..."
> SN> Their purpose it to bleed off the charge so it can't develop to the
> SN> point where the leaders can start and prevent the strike. You need
to
> SN> get the charge out of there, not let it continue to build until it
> SN> finds another path it can breach. Charge concentrates at a point and
> SN> low level ionization bleeds off the charge "safely".
>
> SN> You put large round balls on static generators so that you DO allow
> SN> the charge to build up and not bleed off.
>
> So then why does the lightning prefer to hit the rod? I've seen
> St-Elmo's fire on a metal chimney, quite interesting. \

Does it? Is that what actually happens? Perhaps people aren't keeping them
properly maintained. That's why I have started the very first Lighting rod
maitenance technician shcool. I'll publish the info as soon as we get the
web site up.

73, Steve, K9DCi

> A*s*i*m*o*v
>
> ... Birthdays are good for you - the more you have the longer you live.
>

1815. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 21:19:32 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dhurl4$61a$1@engnntp2.cig.mot.com>
Source record: 69367

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:13320-433E780E-161@storefull-3255.bay.webtv.net...
> Asimov wrote:
> "So then why does the lightning prefer to hit the rod?"
>
> The rod is salient.
>
> It`s the voltage gradient, which is not a uniform function of position
> or altirude, but is greater at sharp edges and points. These initiate
> ionozarion which precipitates lightning.
>
> Best regards, Richard Harrison, KB5WZI
>

So... They're not effective in bleeding off the charge?

Maybe I'll have to refund those tuitions.
73, Steve, K9DCI

1816. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 21:31:37 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <411a6$4342f4f3$97d558d8$4644@ALLTEL.NET>
Source record: 69361
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

In this case the milliwatts per meter refers to frequencies stated in meters.

Volts per meter only applies to the E component, the magnetic component is always stated in amps per meter.

I will get back to you on the specifics. I am pretty sure that my brain is not suffering from a senior moment as to my recollection of the regs.

"RST Engineering" <jim@rstengineering.com> wrote in message news:11k5qprf314vs63@corp.supernews.com...
> Power is not milliwatts per meter. Power is milliwatts. Field strength
> (also an allowed measurement) is in volts per meter.
>

1817. Re: Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 21:46:07 UTC
From: Crazy George <munschNO@SPAMattglobal.net>
Message-ID: <4342fba9_3@news1.prserv.net>
Source record: 69362

Ben Jackson has some good points. You need not worry about audio, usually, as the FM capture takes care of the weaker signal. So, filtering the video carrier and near sidebands is all that is necessary.

However, in answer to your question, the way you connect bandpass filters in parallel is with power dividers, amplifiers, and power dividers again, backwards as summers. Otherwise, controlling the out of band input and output impedances of several in parallel is a monumental, but solvable task. Spice, anyone?

--
Crazy George
"SH" <sholby@hotmail.com> wrote in message
news:43422d26$1@news.wineasy.se...
> Hi
>
> I have come up with one of those crazy DYI ideas which I would like to
try
> to implement but one thing still remains.
>
> I have two UHF (TV) arial pointing in different directions and would like
to
> connect them together through BP filters to minimize noise.
> BP = Bandpass
> Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3 ch 49 -
> 68/ or high pass
> Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2 ch38 -39,
BP
> 3 ch 47
>
> I have found formulas to design each section of BF but how to you connect
> several BP filters in parallel??? I have investigated some old TV filter
and
> they have a coil (12 WDG) in and out of each BP section but is that the
way
> to do it and how does it influence the design of each BP.
>
> The only approach that I can find is to split the signal into three (-
6dB)
> then feed each into a BP filter and the Combine them again (-6dB). This
will
> result in each BP section seeing 75 Ohms as they shouland they would not
> interfere with eachother. Ofcouse i would need a 20 dB amplifier to fix
the
> loss.

>
> But is there a better way.
>
> Best regards
>
> Svend Holby
>
>

1818. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 21:46:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2et5k1pasuf8p8ue93p3qhfp11bbdmv6ms@4ax.com>
Source record: 69363
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 17:31:37 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:
>In this case the milliwatts per meter refers to frequencies stated in
>meters.

Hi Fred,

Is this to suggest that for 300MHz it is 1mW total input power as say
compared to 1MHz allowing 300mW?

This would be uncharacteristically generous of the FCC whose
regulations would ban emissions from dummy loads.

Seems it would hardly serve Ari's search for pork, but I suppose
grantsmanship would jump at sending a marathon of runners through the
spill area - each carrying sub-Watt handi-talkies to provide the
aggregate power, and spectrum, and lung volume necessary to "get the
warning out."

73's
Richard Clark, KB7QHC

1819. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 21:57:10 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7bf3f$4342faef$97d558d8$24062@ALLTEL.NET>
Source record: 69365
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Richard the value changes per band and is stated in part 15. For example in the broadcast band the formula is 24000 /F for microvolts at 1000 feet.

There are certain bands that no emissions are allowed from a low powered device. For example setting up your neighborhood micro Rap Station on 121.5 MHz (aircraft emergency) would probably bring a swift shut down.

I am still searching for the reg that allows fixed information stations. IIRC they can be run on 530 and 1750 KHz. I know in the past I had looked at the regs and the particular station I was researching was indeed legal.

In the low freqs (140 KHz area) you can run up to 1 watt CW with out a license.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:2et5k1pasuf8p8ue93p3qhfp11bbdmv6ms@4ax.com...
> On Tue, 4 Oct 2005 17:31:37 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
> >In this case the milliwatts per meter refers to frequencies stated in
> >meters.
>
> Hi Fred,
>
> Is this to suggest that for 300MHz it is 1mW total input power as say
> compared to 1MHz allowing 300mW?
>
> This would be uncharacteristically generous of the FCC whose
> regulations would ban emissions from dummy loads.
>
> Seems it would hardly serve Ari's search for pork, but I suppose
> grantsmanship would jump at sending a marathon of runners through the
> spill area - each carrying sub-Watt handi-talkies to provide the
> aggregate power, and spectrum, and lung volume necessary to "get the
> warning out."
>
> 73's
> Richard Clark, KB7QHC

1820. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:09:50 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11k5vdfh3t5jt29@corp.supernews.com>
Source record: 69366
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Not quite. That is the limit in 15.209, with the following caveat
"...except as provided elsewhere in this subpart..."

Elsewhere in the subpart (15.219 and 15.221) we have the limit for the band
525-1705 kHz. (AM broadcast band) the 100 mW and 3 meter antenna restriction
OR a 15 uV/m restriction at a distance of (47.715/(frequency in kHz.))
meters (which is also lambda/(2 * pi)) from leaky coax.

BTW, it is 24000/F uV/m at 30 meters from 490 to 1705 kHz., which is more
like 100 feet, not 1000 feet (15.209).

Jim

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:7bf3f$4342faef$97d558d8$24062@ALLTEL.NET...

> Richard the value changes per band and is stated in part 15. For example
> in
> the broadcast band the formula is 24000 /F for microvolts at 1000 feet.

1821. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:28:16 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <11ta0tcw4oytz.1d6ji7kwpmay9$.dlg@40tude.net>
Source record: 69368
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 08:19:05 +1300, Ken Taylor wrote:

>>
>>> You may find that sci.electronic.misc or sci.electronic.design may be
>>> more
>>> relevant, since it's commercial/military and not amateur. Mind you, they
>>> may
>>> also be less polite.....
>>>
>>> Ken
>>
>> Thanks, Ken.
>>
>> Should I be scared?
>> --
> No, but forewarned is fore armed. :-) Your spec's are a bit nebulous, to say
> the least. I'm not accusing you of having no clue, but I'm damn glad DHS
> doesn't use tax-payer funds from this part of the world. This is an exercise
> in getting rid of funds grabbed during a crisis, when the opportunity arose
> to expand the empire. Standard bureaucratic function.

The problem is that anything that is speced at this point is bound to be
changed by FEMA, DHS, FCC, and God knows who else. The idea is to start
somewhere and march forward beginning with the writing of a "white paper"
that can be shot full of holes.
--
Drop the alphabet for email

1822. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:31:46 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1q8o4xpm943m.f72nw6qcveot$.dlg@40tude.net>
Source record: 69369
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

>> Indeed it is both. Considering we gave away a central DB technology to
>> DHS-NOLA, then they failed to use it, we are hoping to make money this
>> time
>> around *and* that they will get their acts together.

On Wed, 5 Oct 2005 08:26:12 +1300, Ken Taylor wrote:

> I'm really not criticizing you, per se, but I don't think the concept is
> well thought out.

By it's very nature, it cannot be, it is a dynamically moving target and
will be for some time I would imagine.

> You refer elsewhere to this being an auxiliary warning system on a loco -
> level crossing lights/bells/boom gates not enough? They usually are, so why
> the worry now? (Okay, we know it's the moolah....).

The number of unmarked or unworkable crossings is greater than the ones
quadrant marked and useable.

> You also refer to 1,000W being available - it's just not enough for what you
> want to do. Period.

3 watts per frequency?

> Good luck with them getting their act (I would have said something else!)
> together, but don't bet the bank on it. I'm actually an ex-bureaucrat myself
> and to call me cynical of governmental abilities would be an understatement.

Well, if in the process we get paid, then wtf, you know?

> But if you do come up with something useful (I bet it ends up being a
> spin-off rather than the initial concept seen here), I hope you get
> something out of it.
>
> Cheers.
>
> Ken

Thanks, Ken, it would be nice to do something that would save lives and
limbs and also make a few asspennies :)
--
Drop the alphabet for email

1823. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:33:00 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1trzn633vp9a8$.1pn63sxhs5cim$.dlg@40tude.net>
Source record: 69370
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 13:06:27 -0700, Jim Richardson wrote:

>> Primarily two things, alerting pre-evac and at grade crossing alerts that a
>> high speed locomotive is approaching.
>>
>
> they'd be better off with bells and lights at the crossing for the
> latter...

Many crossings have none.

>>> We all (outside the screwed zone) saw the blizzard of useless
>>> "messages" the government(s) issued during and after Katrina.
>>
>> And a blizzard of useful ones as well.
>>
>
> wheat from chaff?

Yep, that's the strategy for now.
--
Drop the alphabet for email

1824. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:34:14 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1b8j1rueikcxv$.lo6nhpwwje4n.dlg@40tude.net>
Source record: 69371
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 08:12:56 +1300, Ken Taylor wrote:

>> It's not my call, Wayne, it's the client driving the systems.
>> --
> But you've already changed it! Initially you said it was to be used at an
> emergency site, and now you're saying it's to warn of a high-speed train
> cometh. What the hell gives?
>
> Ken

Both, there are three defined needs (today) 1) on locomotive, permanent at
grade crossing and mobile, take-to-site-and-leave.
--
Drop the alphabet for email

1825. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:34:59 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1p9sexua1d9zp.1a94h3pqeexmb$.dlg@40tude.net>
Source record: 69372
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 08:07:40 +1300, Ken Taylor wrote:

>>> There are a couple of frequiencies for unlicensed low power am stations.
>>> You
>>> can see them in use by real estate folks selling houses. There are no
>>> commercial stations on the frequency.
>>
>> Yes, and at Disney World, etc. This is a very doable idea and may well
>> solve FCC/DoD issues.
>> --
> When was the last time you listened to one of those frequencies? It won't
> get the message out where it's needed.

They suck, I was hoping it was my rental car!
--
Drop the alphabet for email

1826. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:35:41 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <8j382mvt6h1u.2u4v4vukhrbk$.dlg@40tude.net>
Source record: 69373
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 16:09:19 -0400, Fred W4JLE wrote:

> It can be found under the section that allows a transmitter as long as it is
> less than some number of milliwatts per meter.
>
> If you really need the exact section, I will drag out the regs and get it
> for you.

Does this fall under LPFM/LPAM?
--
Drop the alphabet for email

1827. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:37:13 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1368nf7jyod3d.4njangipsc1j.dlg@40tude.net>
Source record: 69374
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 13:51:06 -0700, RST Engineering wrote:

> The OP said that there were a "couple of frequiencies(sic)for unlicensed low
> power am(sic) stations." That implied that there were a couple of
> frequencies that were unused in the AM band by commercial stations, and I
> just wanted to have a reference to WHAT they were and WHERE in the regs they
> were delineated.
>
> Jim

Truth is, I was thinking about reserved but not yet assigned AM/FM
frequencies.
--
Drop the alphabet for email

1828. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:38:11 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <15fj9t9a794kl.1j288dmpz9on4$.dlg@40tude.net>
Source record: 69375
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 04 Oct 2005 14:46:33 -0700, Richard Clark wrote:

> Seems it would hardly serve Ari's search for pork,

Hey, I'm Jewish, sort of.
--
Drop the alphabet for email

1829. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:39:38 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <10jjkadeqxri6.fg1b0yfm6614.dlg@40tude.net>
Source record: 69376
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 15:09:50 -0700, RST Engineering wrote:

> Not quite. That is the limit in 15.209, with the following caveat
> "...except as provided elsewhere in this subpart..."
>
> Elsewhere in the subpart (15.219 and 15.221) we have the limit for the band
> 525-1705 kHz. (AM broadcast band) the 100 mW and 3 meter antenna restriction
> OR a 15 uV/m restriction at a distance of (47.715/(frequency in kHz.))
> meters (which is also lambda/(2 * pi)) from leaky coax.
>
> BTW, it is 24000/F uV/m at 30 meters from 490 to 1705 kHz., which is more
> like 100 feet, not 1000 feet (15.209).
>
> Jim

So if I need to go out 3500 feet or so, this won't work. Correct?
--
Drop the alphabet for email

1830. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:39:59 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <5nmm9dcylhmw$.1rnrbutgswt22.dlg@40tude.net>
Source record: 69377
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 08:04:25 +1300, Ken Taylor wrote:

>>
>> MOF, it has reared its ugly hi speed head again.
>> --
> Sorry, what's 'MOF'?

Matter of fact.....
--
Drop the alphabet for email

1831. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:41:23 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1vxzpk9xqbmci$.7zy9q225wair.dlg@40tude.net>
Source record: 69378
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 08:09:19 +1300, Ken Taylor wrote:

>>> OK, this is just a re-run of previous speculations. You don't know
>>> the depth of your energy budget crisis, do you?
>>
>> Open coffers.
>>
>> --
> He wasn't referring to your finance budget, but your energy budget. I
> hesitate to say it can't be done in any practical sense, but that's my
> thought. The idea of one poster to transmit on the IF's is a good one but I
> didn't suggest that because you'll also kill your emergency services comm's.

lol What;s being tossed around is the ability to allow FEMA et all to kill
the ability to transmit and/or we can upon knowing that the emerg comms are
in use.

> Incidentally, do you plan to have every loco in the US fitted out or are you
> going to fly the loco's to the incident site to do their stuff?
>
> Cheers.
>
> Ken

--
Drop the alphabet for email

1832. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:43:45 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1cbcmu4d514l0.o9jwf977wpd$.dlg@40tude.net>
Source record: 69379
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 04 Oct 2005 12:55:29 -0700, Richard Clark wrote:

>>>
>>> Open coffers.
>>>
>>> --
>>He wasn't referring to your finance budget, but your energy budget. I
>>hesitate to say it can't be done in any practical sense, but that's my
>>thought.
>
> Hi Ken,
>
> His terse reply refers to the public coffers - troughs - open for this
> fabulous pork barrel feast. You know, crack dealer capitalism.
>
> Nothing has to actually work, or be useful, or even be used. It just
> has to generate paper in one direction, and cash in the other. Ari is
> mining us as a dry run for all the terms, shortfalls, and fits to the
> jigsaw to rummage up into a proposal.
>
> 73's
> Richard Clark, KB7QHC

Considering that we have many technologies in use, mof, all technologies
that are not in development are in use, this is a load of horseshit. If we
build it to spec, whatever that spec is, it will be proprietary and how and
when they use it is not in our hands.
--
Drop the alphabet for email

1833. Re: Balanced from unbalanced via a 100 ohm Q section - followup

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:45:54 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <5adb13-isi.ln1@p400bob.personal.cox.net>
Source record: 69381

Hi Jim

I actually had a quick look at that for trying to run Ari's 4NEC2 under Linux. Since it calls the DOS shell to run the calc I was hopeful. Cant remember if it worked but was more concerned about how to call it from the GUI under Wine. (ie how to call a Linux pgm from a W32 pgm running under wine!)

I tend to use my wife's W98 machine when I need to model things (shame on me!)

Many tnxs for your feedback.

Cheers Bob

Jim Richardson wrote:

>
> try dosemu instead. Wine won't work well with programs that try to
> directly access memory via INTs and such.

1834. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 22:46:33 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11k61iaol82dmb0@corp.supernews.com>
Source record: 69380
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Incorrect.

Jim

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:10jjkadeqxri6.fg1b0yfm6614.dlg@40tude.net...

>> BTW, it is 24000/F uV/m at 30 meters from 490 to 1705 kHz., which is more
>> like 100 feet, not 1000 feet (15.209).
>>
>> Jim
>
> So if I need to go out 3500 feet or so, this won't work. Correct?
> --
> Drop the alphabet for email

1835. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 23:40:18 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <dK-dnQ4WndN_j97eRVn-ug@adelphia.com>
Source record: 69382
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Allodoxaphobia wrote:
> On Mon, 3 Oct 2005 17:19:42 -0400, Ari Silversteinn wrote:
>
>>DHS has proposed a change in scenario. They want an on locomotive alerting
>>system that could be commandeered and driven at, near or about a disaster
>>site. Everything else stays more or less the same, overbroadcasting on
>>local AM/FM, power off the locomotive, selective or full frequency
>>broadcasting, train (s) to be in motion at all times. 20-30 second messages
>>that would also combine a message to be aware that a locomotive (at speed)
>>will be flying by the at grade crossings.
>>
>>Comments?
>
>
> And what are these messages suppose to convey?
>
> The target audience already knows it's screwed.
>
> We all (outside the screwed zone) saw the blizzard of useless
> "messages" the government(s) issued during and after Katrina.
>
> Just what I need to hear from a locomotive blowing by at 50 mph:
>
> "Hi! We're the government and we are here to help you."
>
> The best that came out of post-Katrina was from self-help and
> assistance from non-government organizations. And, the
> government even thwarted some of that.
>
> The inmates are running the asylum:
>
> http://www.iht.com/articles/2005/10/02/news/storm.php
>
> Ninety-one thousand tons of ice melting in idling 14-wheelers.

The Republicans are going to take care of all those problems! Darned
Democrats anyhow!

- Mike KB3EIA -

1836. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-04 23:44:44 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e2ea5$4343142e$97d558d8$22288@ALLTEL.NET>
Source record: 69383
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

You are correct Jim, mistyped the extra zero.

"RST Engineering" <jim@rstengineering.com> wrote in message
news:11k5vdfh3t5jt29@corp.supernews.com...
> Not quite. That is the limit in 15.209, with the following caveat
> "...except as provided elsewhere in this subpart..."
>
> Elsewhere in the subpart (15.219 and 15.221) we have the limit for the
band
> 525-1705 kHz. (AM broadcast band) the 100 mW and 3 meter antenna
restriction
> OR a 15 uV/m restriction at a distance of (47.715/(frequency in kHz.))
> meters (which is also lambda/(2 * pi)) from leaky coax.
>
> BTW, it is 24000/F uV/m at 30 meters from 490 to 1705 kHz., which is more
> like 100 feet, not 1000 feet (15.209).
>
>
> Jim
>
>
>
> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
> news:7bf3f$4342faef$97d558d8$24062@ALLTEL.NET...
>
> > Richard the value changes per band and is stated in part 15. For example
> > in
> > the broadcast band the formula is 24000 /F for microvolts at 1000 feet.
>
>

1837. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 01:16:40 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <d5a6k15rf9qikfsino4gg0djo63772grr9@4ax.com>
Source record: 69384

On Tue, 4 Oct 2005 16:19:32 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
>"Richard Harrison" <richardharrison@webtv.net> wrote in message
>news:13320-433E780E-161@storefull-3255.bay.webtv.net...
>> Asimov wrote:
>> "So then why does the lightning prefer to hit the rod?"
>>
>> The rod is salient.
>>
>> It`s the voltage gradient, which is not a uniform function of position
>> or altirude, but is greater at sharp edges and points. These initiate
>> ionozarion which precipitates lightning.
>>
>> Best regards, Richard Harrison, KB5WZI
>>
>
>
>So... They're not effective in bleeding off the charge?
>
>Maybe I'll have to refund those tuitions.
>73, Steve, K9DCI
>

Hi Steve,

No you can't bleed off charge. The earth can supply an almost infinite
amount to replace any that you would have bled off.

A sharp pointed rod is more apt to attract a lightning hit than one
that is blunt. Sharp pointed rods are installed to try and provide a
preferred path for lightning when it does strike.

You can not prevent a strike from happening in an area.
A structure above about 150 feet is just as apt to be struck on the
side as it is the top. It all depends on the way that the step leader
moves in its steps.

You mentioned putting a loop in the coax at the bottom of the tower to
help raise the impedance of the line. However putting a loop or coil
in the line may result in worsening the condition. The coil now can
act as an antenna and increase the pickup of the high magnetic fields
from other lines, tower etc. in the vicinity. So it is generally not a
recommended thing to do.

Bring the coax down to the bottom of the tower and ground it there to the tower ground. Then run on the ground or buried to the shack. At the shack entrance place surge arresters and ground again to a large ground field. The ground field should also be tied to the tower ground filed.

73
Gary K4FMX

1838. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 01:47:39 UTC
From: "John Doe"
Message-ID: <434330c5$0$28817$afc38c87@news.optusnet.com.au>
Source record: 69385
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

How little you know!
Ever hear of Weather Alert?
Amber alert?

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:g31e2e1u2j80.s7dxljcbxf2s$.dlg@40tude.net...
> On Wed, 5 Oct 2005 00:51:49 +1000, John Doe wrote:
>
> > Durrrrrr,
> > Can anyone spell EAS
> > http://www.fcc.gov/eb/eas/
>
> The EAS is designed to provide the President with a means to address the
> American people in the event of a national emergency.
> --
> Drop the alphabet for email

1839. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 03:49:03 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <P2l0f.697$B14.667@newssvr11.news.prodigy.com>
Source record: 69386
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Amos Keag wrote:
> Richard Clark wrote:
>
> SNIPPED
>
>> Seems you've drawn a blank then too. On your own sentence which is
>> the point I made significant. That you missed on both accounts is
>> doubly indicting. Do you have a relative in Texas that is sweating
>> bullets now?
>
>
> Richard, Richard, Richard! :-(Read your last sentence. Do you see
> the error??
>
> "Do you have a relative in Texas that is sweating bullets now?"
>
> There is a GLARING ERROR in it!!!!! It should be ...
> "Do you have a relative in Texas WHO is sweating bullets now?"
>
> A relative is a PERSON not a THING: a WHO not a THAT!!
>
> Tch, Tch,
>

Not if the who is a that. Consider yourself insulted.
73,
Tom Donaly, KA6RUH

1840. Re: Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 05:57:49 UTC
From: SH <sholby@hotmail.com>
Message-ID: <43436b5d$1@news.wineasy.se>
Source record: 69387

Thanks for both you answers its nice to now i stil remember some theory
eventhough its 10 years since i read some UHF theory (Ended up being a
programmer :-))))

I think ill go for the notch version. I have made a lot of them and they are
easy to build but I've noticed that it seams that 3 notches (adjusted to 3
diff freq.) is some kind of limit. When i put in no. 4 it seams that the
overall loss increases.
Do I remember correctly when i state that 2 nothes on the same freq. should
be a 1/4 wave apart???

Best regards

Svend Holby

"Crazy George" <munschNO@SPAMattglobal.net> wrote in message
news:4342fba9_3@news1.prserv.net...
> Ben Jackson has some good points. You need not worry about audio,
> usually,
> as the FM capture takes care of the weaker signal. So, filtering the
> video
> carrier and near sidebands is all that is necessary.
>
> However, in answer to your question, the way you connect bandpass filters
> in
> parallel is with power dividers, amplifiers, and power dividers again,
> backwards as summers. Otherwise, controlling the out of band input and
> output impedances of several in parallel is a monumental, but solvable
> task.
> Spice, anyone?
>
> --
> Crazy George
> "SH" <sholby@hotmail.com> wrote in message
> news:43422d26$1@news.wineasy.se...
>> Hi
>>
>> I have come up with one of those crazy DYI ideas which I would like to
> try
>> to implement but one thing still remains.
>>
>> I have two UHF (TV) arial pointing in different directions and would like
> to
>> connect them together through BP filters to minimize noise.
>> BP = Bandpass

>> Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3 ch
>> 49 -
>> 68/ or high pass
>> Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2 ch38 -39,
> BP
>> 3 ch 47
>>
>> I have found formulas to design each section of BF but how to you connect
>> several BP filters in parallel??? I have investigated some old TV filter
> and
>> they have a coil (12 WDG) in and out of each BP section but is that the
> way
>> to do it and how does it influence the design of each BP.
>>
>> The only approach that I can find is to split the signal into three (-
> 6dB)
>> then feed each into a BP filter and the Combine them again (-6dB). This
> will
>> result in each BP section seeing 75 Ohms as they shouland they would not
>> interfere with eachother. Ofcouse i would need a 20 dB amplifier to fix
> the
>> loss.
>>
>> But is there a better way.
>>
>> Best regards
>>
>> Svend Holby
>>
>>
>
>

1841. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 08:04:16 UTC
From: kashe@sonic.net
Message-ID: <u627k15jos6jp9q9jhmquj1298ekcrm4fo@4ax.com>
Source record: 69388
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 04 Oct 2005 09:31:50 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Tue, 04 Oct 2005 09:58:00 GMT, kashe@sonic.net wrote:
>
>>>>>>>> I'm not hearing any interest in turning streets near me into
>>>>>>>>canals.
>>>>>
>>>>>Yeh - sure.
>>>>
>>>> Damn straight.
>>>Telling us you "might" hear interest in turning streets near you into
>>>canals? Might not? - newsflash! Taking I-5 south to I-10 east, you
>>>are 2274 miles or more from even a remote chance with respect to New
>>>Orleans.
>>
>> Christ -- you can't even parse a sentence -- give up.
>
>Seems you've drawn a blank then too. On your own sentence which is
>the point I made significant. That you missed on both accounts is
>doubly indicting. Do you have a relative in Texas that is sweating
>bullets now?

What the fuck is it to you where I have relatives?

1842. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 08:06:56 UTC
From: kashe@sonic.net
Message-ID: <p827k1l5q2sag0lkjv42g6i7i1q9f8n2k1@4ax.com>
Source record: 69389
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

On Tue, 04 Oct 2005 13:40:46 -0400, Amos Keag <A.K01@comcast.net>
wrote:

>Richard Clark wrote:
>
>SNIPPED
>
>> Seems you've drawn a blank then too. On your own sentence which is
>> the point I made significant. That you missed on both accounts is
>> doubly indicting. Do you have a relative in Texas that is sweating
>> bullets now?
>
>Richard, Richard, Richard! :-(Read your last sentence. Do you see
>the error??
>
>"Do you have a relative in Texas that is sweating bullets now?"
>
>There is a GLARING ERROR in it!!!!! It should be ...
>"Do you have a relative in Texas WHO is sweating bullets now?"
>
>A relative is a PERSON not a THING: a WHO not a THAT!!
>
>Tch, Tch,

Gramatically the antecedent of that or who in both cases is
Texas. It should read, "Do you have, in Texas, ..." In any case it's
none of anyone's damned business where my relatives are.

1843. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 09:24:25 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <9nic13-ltp.ln1@fimbul.myth>
Source record: 69390
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 4 Oct 2005 18:33:00 -0400,
Ari Silversteinn <abcarisilverstein@yahoo.comxyz> wrote:
> On Tue, 4 Oct 2005 13:06:27 -0700, Jim Richardson wrote:
>
>>> Primarily two things, alerting pre-evac and at grade crossing alerts that a
>>> high speed locomotive is approaching.
>>>
>>
>> they'd be better off with bells and lights at the crossing for the
>> latter...
>
> Many crossings have none.
>

I was thinking of putting the bells and lights on the train...

More people have ears, than radios. Few of the ones without ears, use
radios :)

--
Jim Richardson http://www.eskimo.com/~warlock
The mouth of a perfectly happy man is filled with beer.
--Ancient Egyptian Wisdom, 2200 B.C.

1844. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 10:08:49 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <RCN0f.78366$vJ4.12677@tornado.ohiordc.rr.com>
Source record: 69391
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

I think you will find that the FCC has the FINAL call on frequency band usage. I can't see them authorizing such intrusive use of the normal broadcast bands, especially after the broadcast industry gets wind of your proposal.

From a technical standpoint, broadband transmission of a signal is not hard. A simple VFO sweep of all the normal broadcast bands is all that is required. Obviously, the appropriate modulation techniques would have to be used for each band.

Another approach would be the use of a local (LOW power) sweeping UP/DOWN converter. In this method, you could transmit a specific (authorized) signal from the site. This signal would be received and detected by a local receiver. This information would be used to modulate and rebroadcast the signal within the vehicle. However, this would require onboard equipment.

I still think that your biggest hurdle will a legal one.

Wayne-
(KC8UIO)

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message news:1b8j1rueikcxv$.lo6nhpwwje4n.dlg@40tude.net...
> On Wed, 5 Oct 2005 08:12:56 +1300, Ken Taylor wrote:
>
>>> It's not my call, Wayne, it's the client driving the systems.
>>> --
>> But you've already changed it! Initially you said it was to be used at an
>> emergency site, and now you're saying it's to warn of a high-speed train
>> cometh. What the hell gives?
>>
>> Ken
>
> Both, there are three defined needs (today) 1) on locomotive, permanent at
> grade crossing and mobile, take-to-site-and-leave.
> --
> Drop the alphabet for email

1845. Re: "Hams to the Rescue After Katrina" MSNBC News Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 12:43:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <MTP0f.872$we3.342@newssvr13.news.prodigy.com>
Source record: 69392
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.policy

Tom Donaly wrote:
> Not if the who is a that. Consider yourself insulted.

Would an SOB be a that? :-)
--
73, Cecil http://www.qsl.net/w5dxp

1846. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 14:27:17 UTC
From: richardharrison@webtv.net
Message-ID: <11615-4343E2C5-53@storefull-3251.bay.webtv.net>
Source record: 69395

Wayne, KC8UIO wrote:
"I still think your biggest hurdle will be a legal one.

When life is at risk, there are no prohibitions on radio transmissions.

Disruption of all normal channels is unecessary and undesirable. Some won`t be tuned-in and won`t immediately get the message. Nearly everyone has eyes and ears. Sight and sound are useful to communicate.

Air horns as used on locomotives are designed to get attention. They are heard at great distances.

Illuminated message boards are used for travel information along hiways. They are also used for advertising on the Goodyear blimp and other vehicles. They are towed behind airplanes.. They can be programmed by recorded media, wire lines, and radio, even satellite.

Where I live, we have a traffic control central which monitors streets and hiways using video cameras. It gives travel conditions and approximate times required along various routes.. This is reported on the illuminated displays and by radio and TV stations.

A display can`t do anything about hiways clogged when people are stampeded by officials telling them to get out of town, other than warn them away from the clogs.

Some people don`t have the means to get out of town. Others rush into what becomes a huge parking jam. We don`t have room for all the vehicles on the hiway at once. It`s a free country and we cant enforce private access to roads and streets.

We have marked evacuation routes. Everyone can`t use them at the same time. When they try, nobody moves anywhere fast. When officials order an evacuation, they must also advise rail times and places of departures. Bus schedules must be given too, to keep some of the automobile load off overcrowded hiways. Airline information needs to be broadcast too. The transit central`s website needs to be broadcast for internet access.

We had an "emergency broadcast system" ehich tested OK. It could be activated for purposes besides an atom missile. We had air raid sirens that could be used to alert people to tune-in for vital information. We don`t need yet another untested system.

Best regards, Richard Harrison, KB5WZI

1847. Re: The Cavity Magnetron.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 14:27:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <di0nsa$j82$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69394

Reg, I think you're tilting at windmills.
> >
> ====================================
> Dave,
>
> First I am called Punchinello, and now Don Quixote is implied.
>
> Yet you have repeatedly said "Reg is correct".
>
> The only thing I have ever asked is to change the NAME.
>
> It is the NAME itself which causes ill-educated IEEE members and
> befuddled university professors to become old wives. They are
reduced
> to CB-ers who perhaps can be forgiven for being fooled just by a
NAME.
> They actually believe the thing measures SWR on a line which does
not
> exist. Or they find a line which does exist but on which it is
> impossible for the thing to measure anything because it is located
in
> the wrong place. Their contorted imaginations somehow allow them to
> argue interminably between themselves but without ever coming to
> sensible conclusions on which they can agree. The evidence of
battles
> about waves, reflections, re-reflections, virtual reflections,
> conjugate matches, etc, etc, is littered around these newsgroups.
And
> it's all due to a misnomer.
>
> Just change the name of the so-called SWR meter and 50 years of
bitter
> warfare will revert once again to blessed peace and an understanding
> of how things really work. Sack your lawyers.
>
> Reg, G4FGQ

==

Now, after several days of silence except for larks in the cloudless,
azure blue sky, all appears to be "Quiet on the Western Front".

Let the blood-red poppies bloom in memory.

Reg.

1848. building a medium wave antenna for 60km area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 14:28:35 UTC
From: wadjet <djamilandrade@gmail.com>
Message-ID: <1128522515.542085.75070@g14g2000cwa.googlegroups.com>
Source record: 69393

Hello

I would like to have some help. I have a school job to build a medium wave antenna omnidirectional for a area 60km radius. the frequency of the station is 999KHz.
Where can i find some material to do this.

Tanks

1849. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 17:22:02 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1fmrjilzzony1$.1tqhs0ggqb5z2$.dlg@40tude.net>
Source record: 69396
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 5 Oct 2005 02:24:25 -0700, Jim Richardson wrote:

>>> they'd be better off with bells and lights at the crossing for the
>>> latter...
>>
>> Many crossings have none.
>>
>
> I was thinking of putting the bells and lights on the train...
>
> More people have ears, than radios. Few of the ones without ears, use
> radios :)

lol
--
Drop the alphabet for email

1850. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 17:27:47 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1jexrl7qx43ky.lna7flrf01op$.dlg@40tude.net>
Source record: 69397
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 05 Oct 2005 10:08:49 GMT, Wayne P. Muckleroy wrote:

> I think you will find that the FCC has the FINAL call on frequency band
> usage. I can't see them authorizing such intrusive use of the normal
> broadcast bands, especially after the broadcast industry gets wind of your
> proposal.

They got wind. Intrusive? Matter of subjectivity. A 30 sec message that
envelopes a 3500 sided square?

> From a technical standpoint, broadband transmission of a signal is not hard.
> A simple VFO sweep of all the normal broadcast bands is all that is
> required. Obviously, the appropriate modulation techniques would have to be
> used for each band.

That's the way we see it, more or less.

> Another approach would be the use of a local (LOW power) sweeping UP/DOWN
> converter. In this method, you could transmit a specific (authorized) signal
> from the site. This signal would be received and detected by a local
> receiver. This information would be used to modulate and rebroadcast the
> signal within the vehicle. However, this would require onboard equipment.

Which mat make this impractical in the short run but there has been
discussion about mandating this type of installation. I have my doubts but
then we have seat belts and airbags.

> I still think that your biggest hurdle will a legal one.
>
> Wayne-
> (KC8UIO)

I agree. Thanks, Wayne.
--
Drop the alphabet for email

1851. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 17:30:05 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <xfthoozn7aox.ir0ojo5fb72n$.dlg@40tude.net>
Source record: 69398

> We had an "emergency broadcast system" ehich tested OK.
> Best regards, Richard Harrison, KB5WZI

And another one on the way.

http://www.fcw.com/article88522-04-11-05-Print
--
Drop the alphabet for email

1852. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 17:30:42 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1ops8w1f902dd.194d9ppc1dzja$.dlg@40tude.net>
Source record: 69399
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 05 Oct 2005 10:08:49 GMT, Wayne P. Muckleroy wrote:

> I can't see them authorizing such intrusive use of the normal
> broadcast bands,

http://www.fcw.com/article88522-04-11-05-Print

This is intrusive.
--
Drop the alphabet for email

1853. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 17:32:14 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <lu7gstahwmh.o8ymz2mh807i$.dlg@40tude.net>
Source record: 69400
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Tue, 04 Oct 2005 19:40:18 -0400, Mike Coslo wrote:

> The Republicans are going to take care of all those problems! Darned
> Democrats anyhow!
>
> - Mike KB3EIA -

Now look who is the troll.
--
Drop the alphabet for email

1854. Re: Emergency Messaging And AM

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 17:34:31 UTC
From: w <"trollfuckingcentral(tm)"@trollcentral.org>
Message-ID: <1b3fpnk899nw0.17i39kooszccq.dlg@40tude.net>
Source record: 69401
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Which zero?

On Tue, 4 Oct 2005 19:44:44 -0400, Fred W4JLE wrote:

> You are correct Jim, mistyped the extra zero.
>
> "RST Engineering" <jim@rstengineering.com> wrote in message
> news:11k5vdfh3t5jt29@corp.supernews.com...
>> Not quite. That is the limit in 15.209, with the following caveat
>> "...except as provided elsewhere in this subpart..."
>>
>> Elsewhere in the subpart (15.219 and 15.221) we have the limit for the
> band
>> 525-1705 kHz. (AM broadcast band) the 100 mW and 3 meter antenna
> restriction
>> OR a 15 uV/m restriction at a distance of (47.715/(frequency in kHz.))
>> meters (which is also lambda/(2 * pi)) from leaky coax.
>>
>> BTW, it is 24000/F uV/m at 30 meters from 490 to 1705 kHz., which is more
>> like 100 feet, not 1000 feet (15.209).
>>
>>
>> Jim
>>
>>
>>
>> "Fred W4JLE" <w4jle@w4jle.com> wrote in message
>> news:7bf3f$4342faef$97d558d8$24062@ALLTEL.NET...
>>
>>> Richard the value changes per band and is stated in part 15. For example
>>> in
>>> the broadcast band the formula is 24000 /F for microvolts at 1000 feet.
>>
>>

1855. Re: Buddipole antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 18:34:56 UTC
From: mcalhoun@ksu.edu
Message-ID: <di16cg$9kl@unix1.cc.ksu.edu>
Source record: 69402

>If the Buddipole is the one I'm thinking of, you can make out a lot
>cheaper by buying or making a bracket that has capability of mounting two
>mobile whips as a dipole.

I did that with two 80- or two 40-meter whips mounted about two feet above
the cab (pointed straight forward and straight aft) of my pickup truck
(which has a topper on the rear at essentially the same height, and it
"got out" like gangbusters!

Unfortunately, one day the forward-pointing whip exactly snared the loop
on the rope used to close the garage door, and several things broke!
(But, fortunately, it didn't damage the garage door.)
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

1856. Re: assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 18:37:45 UTC
From: mcalhoun@ksu.edu
Message-ID: <di16hp$9p5@unix1.cc.ksu.edu>
Source record: 69403

>The original Windom *was* an intentionally off center fed multi-band
>antenna. Anybody have info on the Windom from the 40's 40's....

Wasn't the design criteria something like "make it 40 feet high and feed
it 40 feet off-center"?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

1857. How feed an extended half-square?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 18:49:48 UTC
From: mcalhoun@ksu.edu
Message-ID: <di178c$a2v@unix1.cc.ksu.edu>
Source record: 69404

I have room to erect a "half square" (aka upside-down phased verticals?)
20-meter antenna to be fed at one corner (low-impedance location; attach
50-ohm coax) or at the bottom (high-impedance; use a matching network):

```
A B
+--------------+ 1/2wave long
| /| 1/4wave high
| / |
/ Matching Network
Coax
```

Unfortunately, I do NOT (because my house is in the way) have room
to make it a more-balanced curtain:

```
A B C
+--------------+--------------+
| /| |
| / | |
/
coax
```

However, if I extend the horizontal wire and leave out the middle
"vertical" (because it would dangle onto the roof), I have room for
four vertical sections in a space that should have five:

```
A B C D E
+--------------+--------------+--------------+--------------+
| | this part will be about | |
| | 10 feet above the peak | |
of my house
```

Observations:
* Line ABCDE will be about 28 feet above ground.
* There is almost no AC wiring in the roof part of the house.
* The incoming AC power line terminates reaches the house at about a
20-foot height (i.e., some 8 feet below the ABCDE line) about halfway
between points B and C and at about a 45-degree angle with line ABCDE
* A lot of tree- and ladder-climbing will be involved, so I'd like to
keep the "cut-and-try" to a minimum.

I've never done any antenna modeling, and I've never had any "feel" for
antenna phasing (EE degree notwithstanding), but I suspect feeding it
at the original corner (B) will result in somewhat unbalanced currents
almost everywhere.

QUESTION: Are there any suggestions on how to feed it (perhaps at
point C)?

What about, for example, substituting rope for the BCD wire (to maintain
the proper tension in AB and DE), connecting a coax to point B, another
to point C, then bringing both to a common point somewhere above ground
level (the shack is in the basement), and then connect them with a T to
the coax that goes through the wall to the rig? Should these two coaxes
be of any particular length?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

1858. dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 19:41:03 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <u%V0f.1264$Ra.685@bignews3.bellsouth.net>
Source record: 69405

Dumb sounding question----but-----with a ladderline fed dipole, is the feedline supposed to radiate and be part of the antenna, under some conditions?

1859. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 19:56:48 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96E683DA8966Cspectrumhogstarbandn@207.106.93.175>
Source record: 69406

> Dumb sounding question----but-----with a ladderline fed dipole, is the
> feedline supposed to radiate and be part of the antenna, under some
> conditions?
>

NOT a dumb question. I was always under the impression that radiation
from the two parallel wires in ladderline was supposed to cancel itself
out... ergo no radiation. That's why they call it a balanced feedling.

Ed K7AAT

1860. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 20:00:47 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <898c1$43447b16$97d558d8$32265@ALLTEL.NET>
Source record: 69417

The G5RV has been said to radiate from the feedline.

"RB" <rbig@bellsouth.nospam.net> wrote in message
news:u%V0f.1264$Ra.685@bignews3.bellsouth.net...
> Dumb sounding question----but-----with a ladderline fed dipole, is the
> feedline supposed to radiate and be part of the antenna, under some
> conditions?
>
>

1861. 6m on top or bot of TV ant???thanks

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 20:10:47 UTC
From: lorentsonci@lycos.com
Message-ID: <t9c8k15a97tu01ofn2s7gikmfh0fiu06ll@4ax.com>
Source record: 69407

I would like to ''do this'' because I lack tower space, at present.. I have a TV antenna that is on a small tower at about 28' , with a tv rotor. I also have a 6 meter horz ground plane , (you know the one that looks like a 'pie slice') I would like to add this horz gd plane to the tower,,,,,,,,, my question is this,,, would I be better off putting it on top of the Tv antenna or below?, what would be a 'good spacing' one way or the other (6 on top or 6 below)
I would like to get some use out of the 6 now, because it will be a while before I get another tower up. $$$
Thanks in advance. cl 73

1862. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 20:13:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <u7c8k1t2cd6266orechfn1pgsmlf23nrh1@4ax.com>
Source record: 69409

On Wed, 05 Oct 2005 19:56:48 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>
>> Dumb sounding question----but-----with a ladderline fed dipole, is the
>> feedline supposed to radiate and be part of the antenna, under some
>> conditions?
>>
>
> NOT a dumb question. I was always under the impression that radiation
>from the two parallel wires in ladderline was supposed to cancel itself
>out... ergo no radiation. That's why they call it a balanced feedling.
>

Ed, your unstated assumptions is critical to the correctness of your
statement.

At sufficient distance from the parallel line, the fields from each
conductor are canceling providing the currents in each conductor are
exactly equal in magnitude and exactly opposite in phase. Under those
conditions, the parallel line is also balanced feed line.

Achieving those conditions (or a sufficient approximation) doesn't
happen automatically in the real world. There are all manner of things
in practical applications that would cause unbalance in the currents
in the conductors.

If the currents are not balanced, the fields will not cancel, and
there will be radiation to some extent, so the feed line does indeed
become part of the radiating system to some extent. Conversely, feed
line capture would contribute to some extent to received energy.

Owen
--

1863. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 20:13:53 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <bmb8k15l8e5964kaiu9ugnvpe5c3l2746q@4ax.com>
Source record: 69408

This is beginning to remind me of a panel I was involved with about 15 or so years ago when I was on an ad hoc White House Advisory Committee which was discussing the broadcasting of television to Castro's Cuba. I was a DOD tech rep and a careerist (I am now retired). We met in the White House Situation Room, almost directly under the Oval Office. Virtually all the other folks on this committee were lawyers and all but me and two military (one was the Vice Chief of the Joint Staff) were political appointees. This project went forward and is known as TV Marti, despite warnings from the technical folks that it could be easily jammed should the Cubans decide that they did not wish their population to see it. (The Cuban Government did want their population to see it and they did jam it). Although I did not have a political role in this matter and I was not a decision maker, just an advisor, what we had was a bunch of politicos trying to legislate the Laws of Physics. The engineering folks put forth all the technical arguements why this project could not meet its goals (that the Cuban average Joe with a common TV set could see American propaganda at any time), but to satisfy an interest group (the Miami Cuban exiles) the project was done anyway. In my technical capacity I was asked how many weeks or month it would take to jam this signal and I said 30 seconds. I erred, the Cubans identified and jammed the signal in 29 seconds.

This summer, I was back in my hometown, a small town in the midwest (I now live near Washington DC) and the ham club to which I belonged as a kid was making improvements to their club station, located in a public building, under the guise of Homeland Security Anti-Terrorism, and funded in large part by that program. Now there are many reasons why the public officials might want a back-up emergency comms systems in this sparsely settled area, but I seriously doubt that terrorism was one of them. More power to the club for having the initiative to try to get these funds, but multiply this by every hamlet in the 3000+ counties in the US and you have what my history books called "pork." This program in the hinterland is draining off funding for areas where a terrorist incident is a very real threat, like here in Washington DC where it did indeed happen, at a building in which I once worked for a time.

W3JT

1864. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 21:33:45 UTC
From: William Warren <william_warren_nonoise@speakeasy.net>
Message-ID: <qP6dnSB5ca8k29neRVn-oA@speakeasy.net>
Source record: 69410

Owen Duffy wrote:
> On Wed, 05 Oct 2005 19:56:48 GMT, Ed
> <Huckleberry_REMOVE_@bigvalley.net> wrote:
>
>
>>>Dumb sounding question----but-----with a ladderline fed dipole, is the
>>>feedline supposed to radiate and be part of the antenna, under some
>>>conditions?
>>>
>>
>> NOT a dumb question. I was always under the impression that radiation
>
>>from the two parallel wires in ladderline was supposed to cancel itself
>
>>out... ergo no radiation. That's why they call it a balanced feedling.
>>
>
>
> Ed, your unstated assumptions is critical to the correctness of your
> statement.
>
> At sufficient distance from the parallel line, the fields from each
> conductor are canceling providing the currents in each conductor are
> exactly equal in magnitude and exactly opposite in phase. Under those
> conditions, the parallel line is also balanced feed line.
>
> Achieving those conditions (or a sufficient approximation) doesn't
> happen automatically in the real world. There are all manner of things
> in practical applications that would cause unbalance in the currents
> in the conductors.
>
> If the currents are not balanced, the fields will not cancel, and
> there will be radiation to some extent, so the feed line does indeed
> become part of the radiating system to some extent. Conversely, feed
> line capture would contribute to some extent to received energy.
>
> Owen
> --

Would twisting the ladder line help?

--
William Warren

(Filter noise from my address for direct replies)

1865. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 21:44:18 UTC
From: Dan Richardson <>
Message-ID: <k8i8k194hok7grrtbb8bmlqot92q2mu8fe@4ax.com>
Source record: 69411

On Wed, 05 Oct 2005 17:33:45 -0400, William Warren
<william_warren_nonoise@speakeasy.net> wrote:

>Would twisting the ladder line help?

No

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

1866. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 22:08:25 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <sd1qxaoaejcq$.1icy0u7hrnv9s.dlg@40tude.net>
Source record: 69412

On Wed, 05 Oct 2005 16:13:53 -0400, J. Teske wrote:

> This is beginning to remind me of a panel I was involved with about 15
> or so years ago when I was on an ad hoc White House Advisory Committee
> which was discussing the broadcasting of television to Castro's Cuba.
> I was a DOD tech rep and a careerist (I am now retired). We met in the
> White House Situation Room, almost directly under the Oval Office.
> Virtually all the other folks on this committee were lawyers and all
> but me and two military (one was the Vice Chief of the Joint Staff)
> were political appointees. This project went forward and is known as
> TV Marti, despite warnings from the technical folks that it could be
> easily jammed should the Cubans decide that they did not wish their
> population to see it. (The Cuban Government did want their population
> to see it and they did jam it). Although I did not have a political
> role in this matter and I was not a decision maker, just an advisor,
> what we had was a bunch of politicos trying to legislate the Laws of
> Physics. The engineering folks put forth all the technical arguements
> why this project could not meet its goals (that the Cuban average Joe
> with a common TV set could see American propaganda at any time), but
> to satisfy an interest group (the Miami Cuban exiles) the project was
> done anyway. In my technical capacity I was asked how many weeks or
> month it would take to jam this signal and I said 30 seconds. I erred,
> the Cubans identified and jammed the signal in 29 seconds.

lol I feel your pain.

> This summer, I was back in my hometown, a small town in the midwest (I
> now live near Washington DC) and the ham club to which I belonged as a
> kid was making improvements to their club station, located in a public
> building, under the guise of Homeland Security Anti-Terrorism, and
> funded in large part by that program. Now there are many reasons why
> the public officials might want a back-up emergency comms systems in
> this sparsely settled area, but I seriously doubt that terrorism was
> one of them. More power to the club for having the initiative to try
> to get these funds, but multiply this by every hamlet in the 3000+
> counties in the US and you have what my history books called "pork."
> This program in the hinterland is draining off funding for areas where
> a terrorist incident is a very real threat, like here in Washington DC
> where it did indeed happen, at a building in which I once worked for a
> time.
>
> W3JT

Point made. The driving force behind this is doing so mostly unseen or at
least that is our best guesstimate. Now, I would disagree as to the ability

to pull this off, there is no really advanced technologies required however one in which we have a patent interest is absolutely necessary (confirmed by legal and technical).

The FCC will have to comply to all kinds of waivers and spectrum rights issues so there must be a political and governmental mandate to champion this project. If not, it's not worth much more than a discussion.
--
Drop the alphabet for email

1867. Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 22:51:50 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <aOY0f.1725$xD7.744@newssvr29.news.prodigy.net>
Source record: 69413
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

If ANY such is to be performed, for railroad equipment, it must be well thought out, and, further, must face multiple Federal Agencies, and at least one private one (A.A.R., The American Association of Railroads) The additional federal agencies are: Federal Railroad Administration, O.S.H.A., and others-- One must also be aware of the facts that MANY frequencies would have to be involved, because of safety concerns (much like airlines), against interference. (No, it is NOT just about Train to train/work crew, and Dispatcher communications that is involved. Other equipment that railroads use are: 1) Track Carriers, for Crossing grade signals, dragging equipment, high-wide load, hot box detectors, Broken Rail detection, not to mention some telephony communications, 2) Remote controlled helper engines (unmanned engines on the end of trains to push-assist, and brake), 3) "FREDS" ("Friggin Rear End Devices"), some of which provide telemetry to the engineer of brake pressure, status of tail light, ect.- the new generation is conversant -2 way, also capable of dumping the brake pressure (emergency brake application, via remote control) and, other options (control of Railroad Central Traffic Control, or CTC. Also, on ALL track circuits, in signaled territory, the use of Insulated Joints is mandated, by the Federal Railroad Administration and can cause derailments, and other problems if NOT adheared to!and, 4) G.P.S. equipment
As to the Engines, tho, they have considerable power, they supply unorthodox voltages (a typical engine uses 600 volt, circuits, and the electronics used on them is in the 68-72 volt range- further, the newer engines are A.C. , the older diesels were D.C.
In sum total, then, this isn't a job for sidewalk superintendents! ONE item the railroads is STILL looking for is a concensus, for a Run-Away vehicle (by their work crews), that would alert a track gang of that runaway comming at them, causing considerable injury! They are STILL looking for such a foolproof device! Translation: DON'T hold your breath, or you will get awful blue!! Jim NN7K
Retired Communication Tech, Southern Pacific, and Union Pacific for over 30 years!!

Ari Silversteinn wrote:
>
>>>Indeed it is both. Considering we gave away a central DB technology to
>>>DHS-NOLA, then they failed to use it, we are hoping to make money this
>>>time
>>>around *and* that they will get their acts together.
>
>

> On Wed, 5 Oct 2005 08:26:12 +1300, Ken Taylor wrote:
>
>
>>I'm really not criticizing you, per se, but I don't think the concept is
>>well thought out.
>
>
> By it's very nature, it cannot be, it is a dynamically moving target and
> will be for some time I would imagine.
>

1868. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-05 22:59:01 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <5VY0f.16263$iM2.1337218@news.xtra.co.nz>
Source record: 69414
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Thanks Jim, but I wouldn't bet on the facts getting in the way of this 'project'.

Cheers.

Ken

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message news:aOY0f.1725$xD7.744@newssvr29.news.prodigy.net...
> If ANY such is to be performed, for railroad equipment, it must be well
> thought out, and, further, must face multiple Federal Agencies, and at
> least one private one (A.A.R., The American Association of Railroads)
> The additional federal agencies are: Federal Railroad Administration,
> O.S.H.A., and others-- One must also be aware of the facts that MANY
> frequencies would have to be involved, because of safety concerns
> (much like airlines), against interference. (No, it is NOT just about
> Train to train/work crew, and Dispatcher communications that is
> involved. Other equipment that railroads use are: 1) Track Carriers,
> for Crossing grade signals, dragging equipment, high-wide load,
> hot box detectors, Broken Rail detection, not to mention some
> telephony communications, 2) Remote controlled helper engines (unmanned
> engines on the end of trains to push-assist, and brake), 3) "FREDS"
> ("Friggin Rear End Devices"), some of which provide telemetry to the
> engineer of brake pressure, status of tail light, ect.- the new generation
> is conversant -2 way, also capable of dumping the
> brake pressure (emergency brake application, via remote control)
> and, other options (control of Railroad Central Traffic Control,
> or CTC. Also, on ALL track circuits, in signaled territory, the
> use of Insulated Joints is mandated, by the Federal Railroad
> Administration and can cause derailments, and other problems
> if NOT adheared to!and, 4) G.P.S. equipment
> As to the Engines, tho, they have considerable power, they supply
> unorthodox voltages (a typical engine uses 600 volt, circuits, and the
> electronics used on them is in the 68-72 volt range- further, the newer
> engines are A.C. , the older diesels were D.C.
> In sum total, then, this isn't a job for sidewalk superintendents!
> ONE item the railroads is STILL looking for is a concensus, for
> a Run-Away vehicle (by their work crews), that would alert a track
> gang of that runaway comming at them, causing considerable injury!
> They are STILL looking for such a foolproof device! Translation:
> DON'T hold your breath, or you will get awful blue!! Jim NN7K
> Retired Communication Tech, Southern Pacific, and Union Pacific
> for over 30 years!!
>

>
> Ari Silversteinn wrote:
>>
>>>>Indeed it is both. Considering we gave away a central DB technology to
>>>>DHS-NOLA, then they failed to use it, we are hoping to make money this
>>>>time
>>>>around *and* that they will get their acts together.
>>
>>
>> On Wed, 5 Oct 2005 08:26:12 +1300, Ken Taylor wrote:
>>
>>
>>>I'm really not criticizing you, per se, but I don't think the concept is
>>>well thought out.
>>
>>
>> By it's very nature, it cannot be, it is a dynamically moving target and
>> will be for some time I would imagine.
>>

1869. Re: 6m on top or bot of TV ant???thanks

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 00:21:20 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <46_0f.10752$C51.8968@trnddc07>
Source record: 69415

<lorentsonci@lycos.com> wrote in message
news:t9c8k15a97tu01ofn2s7gikmfh0fiu06ll@4ax.com...
>I would like to ''do this'' because I lack tower space, at present.. I
> have a TV antenna that is on a small tower at about 28' , with a tv
> rotor. I also have a 6 meter horz ground plane , (you know the one
> that looks like a 'pie slice') I would like to add this horz gd plane
> to the tower,,,,,,,,, my question is this,,, would I be better off
> putting it on top of the Tv antenna or below?, what would be a 'good
> spacing' one way or the other (6 on top or 6 below)
> I would like to get some use out of the 6 now, because it will be a
> while before I get another tower up. $$$
> Thanks in advance. cl 73

Sounds to me like you have a PAR Omniangle, not a ground plane. A (vertical)
ground plane antenna is commonly a 1/4 wave or 5/8 wave vertically polarized
antenna with 3 or 4 ground radials. The Omniangle is a horizontally
polarized omni antenna.
If this is the Omniangle keep it 4' or so away from the TV antenna. Expect
some TVI on low VHF channels.

Dale W4OP

1870. The CFA is back AGAIN

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 00:27:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <di1r0q$4s0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69416

"Philip de Cadenet" wrote -
>
> CFA field readings:
>
> http://i16.photobucket.com/albums/b2/Longchamp/RAI-CFA-Summary.jpg
>
==========

According to the map of North-west Italy, field strength readings at
distances up to 28 Km from the transmitter are 1 or 2 dB better with
the CFA than the previous 80 metre mast.

It doesn't say what the frequency is. But if the mast is 1/4-wave high
the frequency is 943 KHz. and propagation is via groundwave.

Assuming the same transmitter was in use, the data is consistent with
both antennas working not very far from 100% efficient.

This does not, of course, prove anything about Maxwell's 4th Equation.

Can anyone dig up the original claims made by the inventors?

Reg.

1871. Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 01:27:02 UTC
From: Allan Butler <ka0ies@hotmail.com>
Message-ID: <1128562179_21@isp.n>
Source record: 69418

Hello Everyone:

I have tried all the local metal suppliers and several in the Chicago area to get 6061-T6 aluminum tubing from in very specific sizes. I need to get two pieces of 1.00 inch OD with a wall thickness of 0.058 inch that are twelve feet long. I also need to get four pieces of 7/8 inch OD by 0.049 inch wall that are twelve feet long.

Nobody that I spoke with stocks these items. Some of the big name suppliers were down right nasty about me wanting this small quantity of pieces.

Where would one go to get these pieces that I need to get for some antenna projects that I want to build soon? And not pay an arm and a leg for the privilege of owning this rare and unobtainable material.

Allan Butler
ka0ies

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1872. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 01:53:31 UTC
From: Dan Richardson <>
Message-ID: <po09k1t58vdjdj5n858cl55chkljnjbqd5@4ax.com>
Source record: 69419

On Wed, 5 Oct 2005 16:00:47 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>The G5RV has been said to radiate from the feedline.

Only if it is unbalanced (such as not installed sysmetrically).

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

1873. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 01:56:41 UTC
From: Dan Richardson <>
Message-ID: <9219k1h5i4e5olaf9tq7pt2g0r1b76qp98@4ax.com>
Source record: 69420

On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
wrote:

> Where would one go to get these pieces that I need to get for some
>antenna projects that I want to build soon? And not pay an arm and a leg
>for the privilege of owning this rare and unobtainable material.

Try here:

http://www.texastowers.com/aluminum.htm

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

1874. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 02:10:11 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <2sqdnVGwYqToGtneRVn-pQ@web-ster.com>
Source record: 69421

Allan Butler wrote:
> Hello Everyone:
>
> I have tried all the local metal suppliers and several in the Chicago
> area to get 6061-T6 aluminum tubing from in very specific sizes. I need to
> get two pieces of 1.00 inch OD with a wall thickness of 0.058 inch that are
> twelve feet long. I also need to get four pieces of 7/8 inch OD by 0.049
> inch wall that are twelve feet long.
>
> Nobody that I spoke with stocks these items. Some of the big name
> suppliers were down right nasty about me wanting this small quantity of
> pieces.
>
> Where would one go to get these pieces that I need to get for some
> antenna projects that I want to build soon? And not pay an arm and a leg
> for the privilege of owning this rare and unobtainable material.
>
> Allan Butler
> ka0ies
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----

Try asking on rec.crafts.metalworking. I _think_ the one to go to is
http://www.metalexpress.net, but I've never ordered from there.

There's got to be scrap metal yards in Chicago, where you may be able to
find one or the other pieces.

If the sizes are truely oddball then you may be asking folks to order a
lot of something they'll never sell, or (heaven forbid) have made up.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1875. US Tower TX-472 Base question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 02:22:51 UTC
From: Sluggo <luser@AOL.com>
Message-ID: <rk59k1tcgu4p2kctj5h4khr706lb5q59nt@4ax.com>
Source record: 69422

I've got a TX-472; the problem is that at this QTH there is a
limestone hardpan at about 5' depth. The original engineering
drawing calls for a base of 4X4X7' deep. The latest drawing,
available in .pdf form from their website, now calls for
5X5X6.5'.

I'm hoping somebody here has run into a similar problem
and can provide dimensions; UST says their engineer
can draw it up, but for $300 or so. Needless to say, cheaper
or preferably is always better. I can afford to send 'em
the $ < I bought the tower used, it's not like they "owe" me>,
but if I *have to* spend the bucks, I might be inclined to
see if a local PE with the appropriate skills could do it,
just in case there ever were an issue with permitting, etc.,
although I definately don't think that will happen, no permits
req'd in this county for amateur towers below 200' at this time.

Thanks for any help you can offer.

73,
Sluggo

(the email address in the headers is bogus, email to
jrandy AT usa DOt Com if necessary)

1876. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 03:00:28 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <gr01f.4092$ir4.1383@edtnps90>
Source record: 69423

>>The G5RV has been said to radiate from the feedline.
>
> Only if it is unbalanced (such as not installed sysmetrically).
>
> Danny, K6MHE

If each side of the dipole is bent asymmetrically, then very little imbalance in feeder currents is evident. Off center feeding a dipole does unbalance feedline current. A double extended zepp is a good example of an unbalanced feedline with significantly different currents in each leg. It would be interesting to see just how much power is actually radiated from the feedline of such an antenna.

Frank

1877. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 03:12:29 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xC01f.1404$we3.204@newssvr13.news.prodigy.com>
Source record: 69424

Allan Butler wrote:
> Where would one go to get these pieces that I need to get for some
> antenna projects that I want to build soon? And not pay an arm and a leg
> for the privilege of owning this rare and unobtainable material.

I get mine from TexasTowers.com
--
73, Cecil http://www.qsl.net/w5dxp

1878. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 03:16:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <pG01f.1407$we3.1321@newssvr13.news.prodigy.com>
Source record: 69425

Frank wrote:
> A double extended zepp is a good example of an
> unbalanced feedline with significantly different currents in each leg.

Not true. The "double" means it is a balanced dipole.
An EDZ is simply a 1.25 WL center fed dipole. The
currents are supposed to be balanced.
--
73, Cecil http://www.qsl.net/w5dxp

1879. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 03:24:41 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <ZN01f.4095$ir4.3054@edtnps90>
Source record: 69276

"Cecil Moore" <mycall@arrl.net> wrote in message
news:pG01f.1407$we3.1321@newssvr13.news.prodigy.com...
> Frank wrote:
>> A double extended zepp is a good example of an unbalanced feedline with
>> significantly different currents in each leg.
>
> Not true. The "double" means it is a balanced dipole.
> An EDZ is simply a 1.25 WL center fed dipole. The
> currents are supposed to be balanced.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Ok, so I used the wrong name. What I meant was an antenna fed at the end
with open wire line, with one side of the feedline unconnected. Is it
called a zepp?

Frank

1880. Re: dumb sounding ladderline question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 03:31:49 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <FU01f.1409$we3.811@newssvr13.news.prodigy.com>
Source record: 69277

Frank wrote:
> Ok, so I used the wrong name. What I meant was an antenna fed at the end
> with open wire line, with one side of the feedline unconnected. Is it
> called a zepp?

Yep, Zepps and Extended Zepps are unbalanced antennas. When you
add the word "double" to a Zepp or Extended Zepp, it becomes
a balanced dipole.

Zepp is an end-fed 1/2WL, Extended Zepp is an end-fed 5/8 WL.
Double Zepp is a center-fed 1WL. EDZ is a center fed 1.25WL.
--
73, Cecil http://www.qsl.net/w5dxp

1881. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 04:47:53 UTC
From: jerry <tubing_guy@tubing.com>
Message-ID: <4344AC76.546F3735@tubing.com>
Source record: 69278

hi allan,

http://www.mcmaster.com great online catalog,
they got everything even the kitchen sinks !
they even have local pickup if there is one in your area
to save on the truck fees.

how about ebay, lots of tubing online,
I got some nice 6063 (higher corrosion resistance)
.5 od from a guy in california.

Problem will be the ship fees, 12' is by truck.

Got to be a local place that has it.

73 tube guy

1882. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 10:03:54 UTC
From: kashe@sonic.net
Message-ID: <6ns9k1toqt9si4vfsbllpl6p3t5v90inbi@4ax.com>
Source record: 69279
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 05 Oct 2005 22:51:50 GMT, Jim - NN7K
<nn7kexk7zfg@NOSPAMsbcglobal.net> wrote:

>If ANY such is to be performed, for railroad equipment, it must be well
>thought out, and, further, must face multiple Federal Agencies, and at
>least one private one (A.A.R., The American Association of Railroads)
>The additional federal agencies are: Federal Railroad Administration,
>O.S.H.A., and others-- One must also be aware of the facts that MANY
>frequencies would have to be involved, because of safety concerns
>(much like airlines), against interference. (No, it is NOT just about
>Train to train/work crew, and Dispatcher communications that is
>involved. Other equipment that railroads use are: 1) Track Carriers,
>for Crossing grade signals, dragging equipment, high-wide load,
>hot box detectors, Broken Rail detection, not to mention some
>telephony communications, 2) Remote controlled helper engines (unmanned
>engines on the end of trains to push-assist, and brake), 3) "FREDS"
>("Friggin Rear End Devices"), some of which provide telemetry to the
>engineer of brake pressure, status of tail light, ect.- the new
>generation is conversant -2 way, also capable of dumping the
>brake pressure (emergency brake application, via remote control)
>and, other options (control of Railroad Central Traffic Control,
>or CTC. Also, on ALL track circuits, in signaled territory, the
>use of Insulated Joints is mandated, by the Federal Railroad
>Administration and can cause derailments, and other problems
>if NOT adheared to!and, 4) G.P.S. equipment
>As to the Engines, tho, they have considerable power, they supply
>unorthodox voltages (a typical engine uses 600 volt, circuits, and the
>electronics used on them is in the 68-72 volt range- further, the newer
>engines are A.C. , the older diesels were D.C.
>In sum total, then, this isn't a job for sidewalk superintendents!
>ONE item the railroads is STILL looking for is a concensus, for
>a Run-Away vehicle (by their work crews), that would alert a track
>gang of that runaway comming at them, causing considerable injury!
>They are STILL looking for such a foolproof device! Translation:
>DON'T hold your breath, or you will get awful blue!! Jim NN7K
>Retired Communication Tech, Southern Pacific, and Union Pacific
>for over 30 years!!

Jim,

I don't recognize the name, but did you ever work out of the
SF GOB? I spent 30 years there myself.

FWIW, I also hear from Brijet occasionally. You probably know
her (wherever you worked) as she was in charge of CDC for some years.
I spent a decent amount of time down there troubleshooting problems on
the remote lines to the zone offices.

>
>
>Ari Silversteinn wrote:
>>
>>>>Indeed it is both. Considering we gave away a central DB technology to
>>>>DHS-NOLA, then they failed to use it, we are hoping to make money this
>>>>time
>>>>around *and* that they will get their acts together.
>>
>>
>> On Wed, 5 Oct 2005 08:26:12 +1300, Ken Taylor wrote:
>>
>>
>>>I'm really not criticizing you, per se, but I don't think the concept is
>>>well thought out.
>>
>>
>> By it's very nature, it cannot be, it is a dynamically moving target and
>> will be for some time I would imagine.
>>

1883. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 14:06:03 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <vvaak1p8v8j15ngutbl0cv7hnmv3lmlnbg@4ax.com>
Source record: 69280

I generally go about this sort of project from a different approach.

First identify the parts that are difficult and address them first.

In this case, I would determine what materials are available to me at
a price, quality and location that I could live with. Then I would
plan around the materials.

You are more likely to find usable materials in smaller quantities
from fabricators than from distributors. Pricing can vary a lot with
aluminum because the scrap price is a long ways from junk.

People in the antenna business are a good start. Fabricators of
irrigation systems are another source.

The length of the tubing will have an effect on its price. 12 foot
lengths will cost more per foot than 8 foot lengths in many cases.
Sometimes 20 foot lengths will be the norm for some stock.

Sometimes it is worthwhile to buy a commercial product and modify it
to your needs!

On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
wrote:

> Hello Everyone:
>
> I have tried all the local metal suppliers and several in the Chicago
>area to get 6061-T6 aluminum tubing from in very specific sizes. I need to
>get two pieces of 1.00 inch OD with a wall thickness of 0.058 inch that are
>twelve feet long. I also need to get four pieces of 7/8 inch OD by 0.049
>inch wall that are twelve feet long.
>
> Nobody that I spoke with stocks these items. Some of the big name
>suppliers were down right nasty about me wanting this small quantity of
>pieces.
>
> Where would one go to get these pieces that I need to get for some
>antenna projects that I want to build soon? And not pay an arm and a leg
>for the privilege of owning this rare and unobtainable material.
>
>Allan Butler
>ka0ies
>
>-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
>http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
>----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1884. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 15:18:06 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <j3v93h25hoi2$.1wf1m24uxguw6.dlg@40tude.net>
Source record: 69281
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Wed, 05 Oct 2005 22:51:50 GMT, Jim - NN7K wrote:

> If ANY such is to be performed, for railroad equipment, it must be well
> thought out, and, further, must face multiple Federal Agencies, and at
> least one private one (A.A.R., The American Association of Railroads)
> The additional federal agencies are: Federal Railroad Administration,
> O.S.H.A., and others-- One must also be aware of the facts that MANY
> frequencies would have to be involved, because of safety concerns
> (much like airlines), against interference. (No, it is NOT just about
> Train to train/work crew, and Dispatcher communications that is
> involved. Other equipment that railroads use are: 1) Track Carriers,
> for Crossing grade signals, dragging equipment, high-wide load,
> hot box detectors, Broken Rail detection, not to mention some
> telephony communications, 2) Remote controlled helper engines (unmanned
> engines on the end of trains to push-assist, and brake), 3) "FREDS"
> ("Friggin Rear End Devices"), some of which provide telemetry to the
> engineer of brake pressure, status of tail light, ect.- the new
> generation is conversant -2 way, also capable of dumping the
> brake pressure (emergency brake application, via remote control)
> and, other options (control of Railroad Central Traffic Control,
> or CTC. Also, on ALL track circuits, in signaled territory, the
> use of Insulated Joints is mandated, by the Federal Railroad
> Administration and can cause derailments, and other problems
> if NOT adheared to!and, 4) G.P.S. equipment

Thanks, solid points. We have identified the FCC assigned to RR frequencies
and they are outside of the AM/FM bandwidth.

> As to the Engines, tho, they have considerable power, they supply
> unorthodox voltages (a typical engine uses 600 volt, circuits, and the
> electronics used on them is in the 68-72 volt range- further, the newer
> engines are A.C. , the older diesels were D.C.

All this is convertible though, correct?

> In sum total, then, this isn't a job for sidewalk superintendents!

Nope, sure isn't.

> ONE item the railroads is STILL looking for is a concensus, for
> a Run-Away vehicle (by their work crews), that would alert a track
> gang of that runaway comming at them, causing considerable injury!
> They are STILL looking for such a foolproof device!

What's the issue, this appears not to be a huge deal?

> Translation:
> DON'T hold your breath, or you will get awful blue!! Jim NN7K
> Retired Communication Tech, Southern Pacific, and Union Pacific
> for over 30 years!!

Thanks, Jim, not holding any breaths. This isn't an in-house project, it's a coordinated effort that has all the complications and need for input as you have pointed out. We are asked to be Tech Central of sorts.

> Ari Silversteinn wrote:
>>
>>>>Indeed it is both. Considering we gave away a central DB technology to
>>>>DHS-NOLA, then they failed to use it, we are hoping to make money this
>>>>time
>>>>around *and* that they will get their acts together.
>>
>> On Wed, 5 Oct 2005 08:26:12 +1300, Ken Taylor wrote:
>>
>>>I'm really not criticizing you, per se, but I don't think the concept is
>>>well thought out.
>>
>> By it's very nature, it cannot be, it is a dynamically moving target and
>> will be for some time I would imagine.
>>

--
Drop the alphabet for email

1885. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 15:21:39 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1l053cdkmzptz$.v3sj8zl2t047$.dlg@40tude.net>
Source record: 69282
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Thu, 6 Oct 2005 11:59:01 +1300, Ken Taylor wrote:

> Thanks Jim, but I wouldn't bet on the facts getting in the way of this
> 'project'.
>
> Cheers.
>
> Ken

Why do you say that?

Here's a "heads up" for you, Ken. There are over ten FedGov agencies,
several legal teams and the rail lines that are working with diligence on
this, and similar, projects with the full intent of attempting to pull this
off.

While you sit on the sidelines and nay-say.

If I had a dime for cheap comments like yours, I could fund this project
out of petty cash. So goes the nature of those who do and those who comment
about the doers.
--
Drop the alphabet for email

1886. Thanks To All !

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 16:32:02 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1qoi4bqxdfllr$.ql6vpbdh84nn.dlg@40tude.net>
Source record: 69283
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

For your thoughts and comments, very much appreciated.
--
Drop the alphabet for email

1887. top loading vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 17:00:01 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11kam0lksmr1c8d@corp.supernews.com>
Source record: 69284

I have a 48 ft vertical that I wish to shorten 10 feet, and use top loading. Whats a good rule of thumb....use 3 drooping top loading wires each 10 feet long? thanks...

1888. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 17:51:49 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Vud1f.11473$6e1.10922@newssvr14.news.prodigy.com>
Source record: 69285
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

kashe@sonic.net wrote:

>>In sum total, then, this isn't a job for sidewalk superintendents!
>>ONE item the railroads is STILL looking for is a concensus, for
>>a Run-Away vehicle (by their work crews), that would alert a track
>>gang of that runaway comming at them, causing considerable injury!
>>They are STILL looking for such a foolproof device! Translation:
>>DON'T hold your breath, or you will get awful blue!! Jim NN7K
>>Retired Communication Tech, Southern Pacific, and Union Pacific
>>for over 30 years!!
>
>
> Jim,
>
> I don't recognize the name, but did you ever work out of the
> SF GOB? I spent 30 years there myself.
>
> FWIW, I also hear from Brijet occasionally. You probably know
> her (wherever you worked) as she was in charge of CDC for some years.
> I spent a decent amount of time down there troubleshooting problems on
> the remote lines to the zone offices.
>
Never down in Oakland/the CITY, worked in K.Falls for years,
started in Eugene, in '68. Finally moved here to Sparks, about
12 years ago. Yeh, remember Brigit- bet she doing better than
most - had Dave Stubbles in Roseville, until they laid him off
about 7 years ago then he went to makeing big $$$!!-- and the
two Mikes-- Rosemond - he back in Eugene, and Barnecascle- he
in Elko, NV- got a year until retirement! Guess Bob Hall
still retired in K.Falls, and Jim Haas also there (he took my
job when came to Sparks). All retired (except for the two mikes).
Think you Kaiser D ?? have fun-- Jim (A.J. Foster) NN7K

1889. Re: top loading vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 18:28:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sqqak11m3rt5o6tlrf6np794d73990trcm@4ax.com>
Source record: 69286

On Thu, 6 Oct 2005 10:00:01 -0700, "Denton" <denton@oregontrail.net>
wrote:
>I have a 48 ft vertical that I wish to shorten 10 feet, and use top loading.
>Whats a good rule of thumb....use 3 drooping top loading wires each 10 feet
>long? thanks...

Hi Denton,

One rule of thumb I've seen is that the radius of the top hat is equal
to twice the height it replaces.

Of course this probably varies considerably with the number of spokes
and the proportion of the actual height to the equivalent height. What
gives me pause to wonder is that if you can support 3 drooping hat
wires, why can't you keep one going straight up? You already have a
48 footer, why do you want a 38 footer with a hat? To give it the
appearance of being 58 feet? Why not a 48 footer with 5 foot top hat?

73's
Richard Clark, KB7QHC

1890. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 18:31:17 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <V3e1f.1293$dB4.651@newssvr12.news.prodigy.com>
Source record: 69287
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Ari- The power of a locomotive can be converted but, there are
certain problems, like going downhill, not only are brakes applied
to the cars, but the diesels go into "Dynamic Breaking", a complicated
way to say "Let the driver wheels run the motor (as a generator), and
them dump their output to banks of RESISTORS!! Provides great breaking,
but lousey voltage regulation! The radios on these units are powered
by (as stated,) 72 Volts, tho the radios also work on 12 volts (which
was the standard in Cabooses). The main point tho, remains that there
are considerable electronics (the new G.E. A.C.engines , from what
I have been told, are computer operated)! and that anything that
interfers with other items causes considerable greif to the operation
of a railroad- even turning a relay upside down can cause a derailment!

>>They are STILL looking for such a foolproof device!
>
>
> What's the issue, this appears not to be a huge deal?

Well, Ari-- the big deal is (Primarily in mountainous country- even
a grade of .5 degree, is considered quite steep). Now, suppose a
Maintainence of Way employees (push car, Motor Car, Hi-Railer (a
pickup equipped for rail travel) accidentally get loose- these can
be doing considerable speed- several MILES later-- worse, these
dont trip the signals, and further, the work crews have the track
from the dispatcher, so these can sneak up on workers with fatal
consequences. A similar thing happened on the old Siskiyou line,
when the powers that be were testing one of the old style of
remote controlled helpers-, going down-hill, on 5 Mile /Hour track
they called the remote to go to dynamic brakeing- but it went to
8-throttle instead (full throttle)! When they got it to control,
that train was doing 20 MPH! Had a bunch of scared people on it!
as you can see, it is not for the faint of heart! I sure wouldn't have
wanted to be anywhere near that track-- would you ??
I know it looks simple, and most times it is, but it doesn't take
much for things to get out of control! Have fun -- Jim

1891. Cheap interface for your Icom

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 20:18:29 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <fcb8$434586ec$97d558d8$29619@ALLTEL.NET>
Source record: 69288

I wanted to use Ham Radio Deluxe with my Icom radio. It requires an CI-V interface. Being the cheapskate that I am, I checked the internet for "roll your own" information.

What I found looked really familiar, turns out it is identical to an interface I built to program my Radio Shack Pro 95 scanner. Plugged it in and it worked just great.

This means you can purchase a RadioShack 20-289 cable for $24.99 and replace the high dollar CI-V if you choose not to build your own.

1892. How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 22:10:13 UTC
From: David <groups@orbitcoms.com>
Message-ID: <9hh1f.9103$U51.3133@news-server.bigpond.net.au>
Source record: 69290

Does anyone know how I can model a coaxial sleeve antenna
on EZNEC ?

I know how to enter a standard Vertical 1/2 wave but not sure how
to represent the coax going up through the tubing(sleeve) in the lower
portion.

Thanks in advance.

1893. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 22:11:13 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1h0smbcc5z028.ov1n4xolnwcn$.dlg@40tude.net>
Source record: 69289
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Thu, 06 Oct 2005 18:31:17 GMT, Jim - NN7K wrote:

> Ari- The power of a locomotive can be converted but, there are
> certain problems, like going downhill, not only are brakes applied
> to the cars, but the diesels go into "Dynamic Breaking", a complicated
> way to say "Let the driver wheels run the motor (as a generator), and
> them dump their output to banks of RESISTORS!! Provides great breaking,
> but lousey voltage regulation! The radios on these units are powered
> by (as stated,) 72 Volts, tho the radios also work on 12 volts (which
> was the standard in Cabooses). The main point tho, remains that there
> are considerable electronics (the new G.E. A.C.engines , from what
> I have been told, are computer operated)!

Just saw one, yep, looks exactly that way.

> and that anything that
> interfers with other items causes considerable greif to the operation
> of a railroad- even turning a relay upside down can cause a derailment!

Ah, I see what you mean, thanks again for the heads up. Are you then
suggesting that we create our own, clean power removed from the loco elec
grid?
--
Drop the alphabet for email

1894. Re: Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 22:16:34 UTC
From: BTM <BTM.1wii2y@news.radiobanter.com>
Message-ID: <BTM.1wii2y@news.radiobanter.com>
Source record: 69295

Ham op Wrote:
> wizard12342002@yahoo.com wrote:
> -
> Suppose I have an antenna some distance from the house. I run the
> transmission line down from the antenna, bury the line, run it
> underground to the house, place a lightning arrestor and ground just
> outside the house, then run the transmission line up the side of the
> house to the operating position on the second floor. Does anyone see
> a
> problem with this arrangement? I can't imagine that a lightning
> would
> "want" to travel back up toward the operating position when it has a
> good ground (at the arrestor) closer to the antenna.
>
> -JJ-
>
> 90% of all lightning strikes can be described as less than 100,000
> amperes peak, multi strike, 600 amperes continuing current at a
> critical
> E field
> strength of more than 12,000 volts per meter pre strike. [USAF
> standard
> lightning
> model].
>
> A lightning arrestor uses a spark gap, AKA plasma, to protect the
> downstream equipment. The spark gap can be modeled as a non-linear
> zener
> diode with a higher ignition voltage than sustaining voltage. In other
> words the voltage needed to fire an arrested is great than the voltage
> after it fires.
>
> The large currents set up magnetic fields in the local area that
> induce
> voltages INSIDE shielded enclosures [eg cables]. The current flowing
> on
> the outside of your coax induces voltages on the inner conductor [via
> transfer impedance, Vance et al, IEEE Transactions].
>
> Conclusion: there are at least three possible sources of trouble from
> a
> lightning strike on or near your antenna: 1) transient from the
> lightning arrestor 2) induced, -L*di/dt, voltages inside intentional
> and

> unintentional loops, and, 3) transfer impedance induced voltages on
> center conductors of coax cables.
>
> Solution: Ground everything you can using single ground point
> principles
> [just as you described], disconnect AND THROW antenna cables OUTSIDE
> of
> your house, unplug all equipment from power mains, buy good insurance,
> buy more insurance. [I just replaced my IC-756 Pro II with good
> insurance coverage][My IC-746 co-located 6 inches from the IC-756 Pro
> II
> did not fail from the same lightning strike][50+ years in ham radio
> and
> this is my first loss to lightning]
>
> I live near Boston. We have a professional baseball team and the team
> has a 'unique personality' named Manny. There is a statement that
> 'Manny
> does what Manny does!'. Paraphrasing this saying for lightning:
> 'Lightnign does what lightning does!'
HOLY TESLA, BATMAN

--
BTM

1895. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 22:17:10 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <oxshvrvfkj5j$.1fs68t3zz2f4f.dlg@40tude.net>
Source record: 69291
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Thu, 06 Oct 2005 18:31:17 GMT, Jim - NN7K wrote:

>>>They are STILL looking for such a foolproof device for run away train notification!
>>
>> What's the issue, this appears not to be a huge deal?
>
> Well, Ari-- the big deal is (Primarily in mountainous country- even
> a grade of .5 degree, is considered quite steep). Now, suppose a
> Maintainence of Way employees (push car, Motor Car, Hi-Railer (a
> pickup equipped for rail travel) accidentally get loose- these can
> be doing considerable speed- several MILES later-- worse, these
> dont trip the signals, and further, the work crews have the track
> from the dispatcher, so these can sneak up on workers with fatal
> consequences. A similar thing happened on the old Siskiyou line,
> when the powers that be were testing one of the old style of
> remote controlled helpers-, going down-hill, on 5 Mile /Hour track
> they called the remote to go to dynamic brakeing- but it went to
> 8-throttle instead (full throttle)! When they got it to control,
> that train was doing 20 MPH! Had a bunch of scared people on it!
> as you can see, it is not for the faint of heart! I sure wouldn't have
> wanted to be anywhere near that track-- would you ??

Not a chance.

> I know it looks simple, and most times it is, but it doesn't take
> much for things to get out of control! Have fun -- Jim

I meant it seemed not to be, on first look, a difficult technology to
implement. For example, why not a sped sensitive device that set off an
alarm (vocal, radio, other) that could be preset "on" in situations where
these runaways are not manned?

I don't mean to downplay the potential complications but, technically,
getting an appropriate alarm system on a runaway doesn't sound like high
end technology.
--
Drop the alphabet for email

1896. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 22:38:04 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <qabmb9inyqui.11f1v29mtoaw1.dlg@40tude.net>
Source record: 69292

On Wed, 5 Oct 2005 09:27:17 -0500, Richard Harrison wrote:

> Disruption of all normal channels is unecessary and undesirable. Some
> won`t be tuned-in and won`t immediately get the message. Nearly everyone
> has eyes and ears. Sight and sound are useful to communicate.
>
> Air horns as used on locomotives are designed to get attention. They are
> heard at great distances.

Ever hear of The Quiet Zone rulings?
--
Drop the alphabet for email

1897. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-06 23:06:03 UTC
From: kashe@sonic.net
Message-ID: <idbbk19inmlhdihsti5j7mm5duef2q678g@4ax.com>
Source record: 69293
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Thu, 06 Oct 2005 17:51:49 GMT, Jim - NN7K
<nn7kexk7zfg@NOSPAMsbcglobal.net> wrote:

>
>
>kashe@sonic.net wrote:
>
>>>In sum total, then, this isn't a job for sidewalk superintendents!
>>>ONE item the railroads is STILL looking for is a concensus, for
>>>a Run-Away vehicle (by their work crews), that would alert a track
>>>gang of that runaway comming at them, causing considerable injury!
>>>They are STILL looking for such a foolproof device! Translation:
>>>DON'T hold your breath, or you will get awful blue!! Jim NN7K
>>>Retired Communication Tech, Southern Pacific, and Union Pacific
>>>for over 30 years!!
>>
>>
>> Jim,
>>
>> I don't recognize the name, but did you ever work out of the
>> SF GOB? I spent 30 years there myself.
>>
>> FWIW, I also hear from Brijet occasionally. You probably know
>> her (wherever you worked) as she was in charge of CDC for some years.
>> I spent a decent amount of time down there troubleshooting problems on
>> the remote lines to the zone offices.
>>
>Never down in Oakland/the CITY, worked in K.Falls for years,
>started in Eugene, in '68. Finally moved here to Sparks, about
>12 years ago. Yeh, remember Brigit- bet she doing better than
>most - had Dave Stubbles in Roseville, until they laid him off
>about 7 years ago then he went to makeing big $$$!!-- and the
>two Mikes-- Rosemond - he back in Eugene, and Barnecascle- he
>in Elko, NV- got a year until retirement! Guess Bob Hall
>still retired in K.Falls, and Jim Haas also there (he took my
>job when came to Sparks). All retired (except for the two mikes).
>Think you Kaiser D ?? have fun-- Jim (A.J. Foster) NN7K

Oops, sorry, I meant to take this personal stuff offline.

1898. WTB - Set of Chassis Punches

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 02:21:40 UTC
From: Colin Gunn <cgunn@telus.net>
Message-ID: <UYk1f.1902$S4.1797@edtnps84>
Source record: 69294
Cross-posted to: alt.ham-radio,alt.ham-radio.hf,alt.ham-radio.marketplace,alt.ham-radio.ssb,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.swap

Looking for a good set of Chassis Punches for home-brew projects. Something like the older GreenLee type of punch and die set. 0.5" to 1.5" or in between.

Colin, VE7TNT in Victoria, B.C.

1899. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 04:39:11 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <4ntbk1lua9jmglj5gthnj6d889k0o8nsg0@4ax.com>
Source record: 69296

On Thu, 6 Oct 2005 18:38:04 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:

I don't know the details on how it works, but it seems to me that a
broadening of something akin to the On-Star technology might be a
solution work examining. I do not know if an On-Star operator can talk
to an equipped vehicle at On-Stars initiative, but certainly we have
the start of a system with a two-way radio with a satellite comms
link.

Admittedly, at the momeny On-Star is considered a luxury add-on option
and is currently available only in GM cars (to the best of my
knowledge.) But 23 years ago, I wrote a paper to my DOD bosses which
said this system the Swedes were developing called cellular phone
might have to be looked into. I was doing this as part of a survey on
new technologies which could have an impact upon intelligence
production. [I got a response from some Dilbert-type pinhead boss that
said it would go nowhere BTW]. Given a few years and some
competition, the On-Star paradigm could be as ubiquitous as
cell-phones are today. Even 23 years ago, I never forsaw the
possibility of virtually every teenager having a cell phone or that
there would be ten of them in just my immediate family [Wife, myself,
two adult children and their families. Son and his wife have two
systems each plus a Nextel.]

If an On-Star device, would be true two way, with GPS tracking, with
either end of the link able to activate the system. One could
broadcast a message to every active unit, either universally, or,
based upon GPS tracking to every unit with prescribed geo coordinates.
There already exists a somewhat similar system to broadcast weather
alerts to a passive receiver, although not normally deployed in cars.
Boaters already can have a Digital Selective Calling VHF radio in
their boats by which a coast guard can issue warnings. Such a system
is being mandated in the UK by a phase in process (e.g. new radios
with the old paradigm cannot be marketed unless they have DSC.)

And horror of horrors, one could alway investigate Broadband over
Powerlines (BPL). Wouldn't that give us hams some gas.

W3JT

>On Wed, 5 Oct 2005 09:27:17 -0500, Richard Harrison wrote:
>
>> Disruption of all normal channels is unecessary and undesirable. Some
>> won`t be tuned-in and won`t immediately get the message. Nearly everyone
>> has eyes and ears. Sight and sound are useful to communicate.

>>
>> Air horns as used on locomotives are designed to get attention. They are
>> heard at great distances.
>
>Ever hear of The Quiet Zone rulings?

1900. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 09:51:02 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <61th13-nok.ln1@fimbul.myth>
Source record: 69298

On Thu, 6 Oct 2005 18:38:04 -0400,
Ari Silversteinn <abcarisilverstein@yahoo.comxyz> wrote:
> On Wed, 5 Oct 2005 09:27:17 -0500, Richard Harrison wrote:
>
>> Disruption of all normal channels is unecessary and undesirable. Some
>> won`t be tuned-in and won`t immediately get the message. Nearly everyone
>> has eyes and ears. Sight and sound are useful to communicate.
>>
>> Air horns as used on locomotives are designed to get attention. They are
>> heard at great distances.
>
> Ever hear of The Quiet Zone rulings?

you expect to get a special dispensation to blast all bands in an
emergency, but worry about noise ordinances?

--
Jim Richardson http://www.eskimo.com/~warlock
When you boil it down to the essentials, it's because Linux is designed
to be *used* and Windows is designed to be *sold*.

1901. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 09:52:12 UTC
From: kashe@sonic.net
Message-ID: <46hck11f47qhnt2lpspb4jhvpigkpras18@4ax.com>
Source record: 69297

On Fri, 07 Oct 2005 00:39:11 -0400, J. Teske <jdteske@comcast.net>
wrote:

>On Thu, 6 Oct 2005 18:38:04 -0400, Ari Silversteinn
><abcarisilverstein@yahoo.comxyz> wrote:
>
>I don't know the details on how it works, but it seems to me that a
>broadening of something akin to the On-Star technology might be a
>solution work examining. I do not know if an On-Star operator can talk
>to an equipped vehicle at On-Stars initiative, but certainly we have
>the start of a system with a two-way radio with a satellite comms
>link.

Why not -- they can eavesdrop on a selected vehicle, as was
proven once when the cops asked them to do so to a vehicle involved in
a kidnap.

And now thwt I think of it, they can iniiate a conversation
when they detect an airbag deployment.

1902. Re: The CFA is back AGAIN

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 14:13:56 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <Eov1f.9286$lo.3069@clgrps13>
Source record: 69299

> According to the map of North-west Italy, field strength readings at
> distances up to 28 Km from the transmitter are 1 or 2 dB better with
> the CFA than the previous 80 metre mast.
>
> It doesn't say what the frequency is. But if the mast is 1/4-wave high
> the frequency is 943 KHz. and propagation is via groundwave.
>
> Assuming the same transmitter was in use, the data is consistent with
> both antennas working not very far from 100% efficient.
>
> This does not, of course, prove anything about Maxwell's 4th Equation.
>
> Can anyone dig up the original claims made by the inventors?
> ----
> Reg.

There is reference to the original measurements in
http://www.ee.surrey.ac.uk/Personal/D.Jefferies/poynting.html

If this is all there is, then the test results are meaningless.

Frank

1903. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 14:33:41 UTC
From: richardharrison@webtv.net
Message-ID: <1406-43468745-509@storefull-3258.bay.webtv.net>
Source record: 69300

J. Teske wrote:
"Ever hear of Quiet Zone rulings?"

Is that why air raid sirens aren`t tested Fridays at noon anymore?

When life is at risk, quiet zones, like radio rules, don`t apply.

Best regards, Richard Harrison, KB5WZI

1904. Re: assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 16:36:34 UTC
From: richardharrison@webtv.net
Message-ID: <9656-4346A412-598@storefull-3254.bay.webtv.net>
Source record: 69303

Myron Calhoun wrote:
"Wasn`t the design criteria something like "Make it 40 feet high, and feed it 40 feet off center."

The Windom was named for the amateur who described it in an article. It was a 1/2-wavelengrh at its lowest frequency of use. A single feed wire is connected at 0.34 X the length of the antenna, from one end.

The Windom works best over highly conductive earth using a versatile matching network to the transmitter.

The 1/3 length feedpoint from one end is about 1/6 the distance from the antenna`s centerpoint. 40 feet off center, makes the antenna 240 feet long. This is 1/2-WL at 146 meters. It is 12 meters high. This is 1/4-WL at 48 meters and
1/2-WL at 24 meters.

Best regards, Richard Harrison, KB5WZI

1905. Re: WTB - Set of Chassis Punches

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 16:39:19 UTC
From: KC4IH <nospam@no_server.com>
Message-ID: <xYGdnb0m5pQ2OdveRVn-sQ@adelphia.com>
Source record: 69301
Cross-posted to: alt.ham-radio,alt.ham-radio.hf,alt.ham-radio.marketplace,alt.ham-radio.ssb,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.swap

Check out Ebay and search for Greenlee. Be sure to get the radio chassis version, not the conduit which don't come in standard hole sizes. I just bought a bought an inch size for relay sockets.
73,
KC4IH

"Colin Gunn" <cgunn@telus.net> wrote in message news:UYk1f.1902$S4.1797@edtnps84...
> Looking for a good set of Chassis Punches for home-brew projects.
> Something
> like the older GreenLee type of punch and die set. 0.5" to 1.5" or in
> between.
>
> Colin, VE7TNT in Victoria, B.C.
>
>

1906. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 16:43:50 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <8fyjcagnbyos$.ciygv6f9ygga.dlg@40tude.net>
Source record: 69302

On Fri, 7 Oct 2005 02:51:02 -0700, Jim Richardson wrote:

>>> Air horns as used on locomotives are designed to get attention. They are
>>> heard at great distances.
>>
>> Ever hear of The Quiet Zone rulings?
>
> you expect to get a special dispensation to blast all bands in an
> emergency, but worry about noise ordinances?

Quiet Zones are no horns allowed. The rest you have to figure out.
--
Drop the alphabet for email

1907. Hustler 3 antenna (VP-3) adjustment

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 16:46:03 UTC
From: RJ <rajohngm@worldnet.att.net>
Message-ID: <fDx1f.387878$5N3.110919@bgtnsc05-news.ops.worldnet.att.net>
Source record: 69304

I have a Hustler mobile mast with a VP-3 mount using a 10, 20 and 40 meter resonator. Anyone know about the sequence for tuning these 3 antennas? I have misplaced my instruction sheet.
Tnx Bob, AA8X

1908. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 16:48:42 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1sgoknd8029uu$.19z9gfqusx7lm$.dlg@40tude.net>
Source record: 69305

On Fri, 07 Oct 2005 00:39:11 -0400, J. Teske wrote:

> If an On-Star device, would be true two way, with GPS tracking, with
> either end of the link able to activate the system. One could
> broadcast a message to every active unit, either universally, or,
> based upon GPS tracking to every unit with prescribed geo coordinates.
> There already exists a somewhat similar system to broadcast weather
> alerts to a passive receiver, although not normally deployed in cars.
> Boaters already can have a Digital Selective Calling VHF radio in
> their boats by which a coast guard can issue warnings. Such a system
> is being mandated in the UK by a phase in process (e.g. new radios
> with the old paradigm cannot be marketed unless they have DSC.)
>
> And horror of horrors, one could alway investigate Broadband over
> Powerlines (BPL). Wouldn't that give us hams some gas.
>
> W3JT

The issue of installing a proprietary receiving device inside automobiles,
mandated by federal action, is one that is being given serious
conversation. The one problem that appears to be an issue is the liability
one. It will be a matter of time that someone will sue saying that the
system scared them or distracted them and caused this or tat accident.
--
Drop the alphabet for email

1909. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 16:50:37 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-FB7811.08503507102005@netnews.worldnet.att.net>
Source record: 69306

In article <46hck11f47qhnt2lpspb4jhvpigkpras18@4ax.com>,
kashe@sonic.net wrote:

> On Fri, 07 Oct 2005 00:39:11 -0400, J. Teske <jdteske@comcast.net>
> wrote:
>
> >On Thu, 6 Oct 2005 18:38:04 -0400, Ari Silversteinn
> ><abcarisilverstein@yahoo.comxyz> wrote:
> >
> >I don't know the details on how it works, but it seems to me that a
> >broadening of something akin to the On-Star technology might be a
> >solution work examining. I do not know if an On-Star operator can talk
> >to an equipped vehicle at On-Stars initiative, but certainly we have
> >the start of a system with a two-way radio with a satellite comms
> >link.
>
> Why not -- they can eavesdrop on a selected vehicle, as was
> proven once when the cops asked them to do so to a vehicle involved in
> a kidnap.
>
> And now thwt I think of it, they can iniiate a conversation
> when they detect an airbag deployment.

OnStar is a cellular based system with GPS Positioning builtin

Me

1910. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 17:23:46 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <yncfze87x4co.1e5riur4hfq0o$.dlg@40tude.net>
Source record: 69307

On Fri, 7 Oct 2005 09:33:41 -0500, Richard Harrison wrote:

> J. Teske wrote:
> "Ever hear of Quiet Zone rulings?"
>
> Is that why air raid sirens aren`t tested Fridays at noon anymore?
>
> When life is at risk, quiet zones, like radio rules, don`t apply.

Yep, you've never heard or understand Quiet Zones.
--
Drop the alphabet for email

1911. Re: building a medium wave antenna for 60km area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 18:58:04 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <Yrvzg6B8UsRDFw+F@b-howie.demon.co.uk>
Source record: 69309

In message <1128522515.542085.75070@g14g2000cwa.googlegroups.com>,
wadjet <djamilandrade@gmail.com> writes
>Hello
>
>I would like to have some help. I have a school job to build a medium
>wave antenna omnidirectional for a area 60km radius. the frequency of
>the station is 999KHz.
>Where can i find some material to do this.

Just copy one of these :-

http://tx.mb21.co.uk/gallery/westerglen.asp

Brian
--
Brian Howie

1912. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 19:20:30 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <di6i2r$a40$1@news.service.uci.edu>
Source record: 69308

Ari Silversteinn wrote:
> On Fri, 7 Oct 2005 09:33:41 -0500, Richard Harrison wrote:
>
>
>>J. Teske wrote:
>>"Ever hear of Quiet Zone rulings?"
>>
>>Is that why air raid sirens aren`t tested Fridays at noon anymore?
>>
>>When life is at risk, quiet zones, like radio rules, don`t apply.
>
>
> Yep, you've never heard or understand Quiet Zones.

Is a quiet zone a place like Placentia Ca. which had, for the railroad,
become a manditory blow your full set of air horns long and loud right
next to the bedroom windows every time you pass by no matter what time
of day or night it is, and where the locals have passed an ordinance
that says they're sick and tired of it?

1913. Trapping my 80m Inverted L for 160?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 20:02:29 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <di6k8knrq1@news.netins.net>
Source record: 69310

I'm having great success with my 80m inverted L (45' up and 25 or so feet out), with 26 radials (now). (Hung off the side of my tower)

I had a thought for something to just "get me on" 160. Is there any reason I couldn't put an 80m trap (design freq, please?) at the end of the 80m horizontal wire and stretch it out for 160? I read the article on W8JI's site
about coaxial vs other traps. Since I'm not going for broke, but just want a quick and dirty solution, I was thinking about making a coaxial trap for 80m out of RG8/X coax (or I could buy some 58a/u) that I have laying around. Not running more than 500w, so this size coax should be fine.

My questions:

1. What freq should I "design" the trap for?

1a. The program referred to on W8JI's web site (trap design) has no entry for 8x, but manual values can be entered. Anyone have ready access to the parms for 8x that I
need to enter?

2. I assume the trap will detune the 80m section, making it longer. Any ideas for a starting point on how much to shorten it, or should I just cut and try?

3. Will there be any degradation on performance on 80m from adding the trap and wire extension to enable 160m?

4. Any suggested starting wire length after the trap to resonate 160 towards the lower (DX) part of the band?

I don't want to ruin the excellent performance I'm getting on 80m, no matter what I do, so if I can't do this without compromising 80m, I'll think about another alternative.

Thanks for any ideas you may have. I wan't to get this done before the snow flies!

73,

...hasan, N0AN

1914. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 20:28:35 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <81b62fvzkos0$.i8rapbwec17l$.dlg@40tude.net>
Source record: 69311

On Fri, 07 Oct 2005 12:20:30 -0700, Jim Kelley wrote:

>> Yep, you've never heard or understand Quiet Zones.
>
> Is a quiet zone a place like Placentia Ca. which had, for the railroad,
> become a manditory blow your full set of air horns long and loud right
> next to the bedroom windows every time you pass by no matter what time
> of day or night it is, and where the locals have passed an ordinance
> that says they're sick and tired of it?

Close.

http://tinyurl.com/cb53f
--
Drop the alphabet for email

1915. V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 20:29:06 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <n9mdk196lc3r6jj9nug977t0kpo0f3chk8@4ax.com>
Source record: 69312

On Tue, 27 Sep 2005 02:04:46 GMT, Cecil Moore <mycall@arrl.net> wrote:

>The transmission line length must only be long enough such that
>the V/I ratio is forced to the Z0 value. According to some pretty
>smart guys I asked, that's about 2% of a wavelength.

Cecil, do you have some quantitative explanation / support for this?

The treatments that I have seen of transmission line tuners where different Zo lines are directly connected do not suggest corrections / tolerances of the type you imply.

(IIRC, Terman discusses a fringing capacitance as a means of allowing for a physical discontinuity.)

I am not asking whether or not field conditions (and V/I on the conductors) immediate to the discontinuity are not Zo of either of the lines, just where has the 2% of a wavelength come from?

Owen
--

1916. Re: Trapping my 80m Inverted L for 160?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 20:32:23 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87zmplyso8.fsf@qmc.ph.msstate.edu>
Source record: 69313

>about coaxial vs other traps. Since I'm not going for broke, but just want a
>quick and dirty solution, I was thinking about making a coaxial trap for 80m
>out of RG8/X coax (or I could buy some 58a/u) that I have laying around. Not
>running more than 500w, so this size coax should be fine.

I did that once to make a dual-band inverted L, and it worked fine (I
also used a coax-cable trap). I tuned the trap for 80m.

Here is another alternative to think about that might be even easier:
simply put up a second wire for 160m, and feed it in parallel with the
80m wire.

For a while I had up a 160m inverted L with a vertical part of about
75'. I had a 80m wire (full 1/4 wave) running parallel to the 160m, and
spaced about 3 feet away. At the base, they both connected to the
feedpoint. I used a beta match coil across the feedpoint to match
the 160 wire, which had little effect on the 80m swr. It worked
quite well on both bands.

Tor
N4OGW

1917. Re: building a medium wave antenna for 60km area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 20:44:02 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <k93j13-s6r.ln1@p400bob.personal.cox.net>
Source record: 69314

Assuming you really are wanting information and are not being silly!

Generally speaking MF stations that want that kind of range in a average broadcast mode of operation (ie the people receiving it only have small portables/car radios etc rather than well tuned antenna arrays themselves) need to have something close to a 1/4 wave vertical in a very large paddock with an underground earth mat. You can use longer antennas and feed them as half waves etc but your dimensions become a problem.

A 1/4 wave on 999kHz is 150 metres or thereabout. Thats roughly how high a guyed lattice tower/structure you would need. The ground mat would probably need to be at least 15 metres out from the antenna base.

This is of course not cut and dry. Varying conditions and topography govern what kind of performance you will really get. Most MF stations also run quite a lot of RF power. Something you didnt specify.

You can of course make a loaded antenna of any length and suffer the loss of performance. I cant remember the figure off hand but something like a 97% loss of antenna effiency wouldnt be unrealistic if you used a 6 metre loaded vertical.

Probably your best "bang for buck" would be to float an antenna from a kite. There may be air regs to consider though.

If you really are trying to do this pls repost some more detail of what you are trying to achieve.

Bob VK2YQA

wadjet wrote:
>
> Hello
>
> I would like to have some help. I have a school job to build a medium
> wave antenna omnidirectional for a area 60km radius. the frequency of
> the station is 999KHz.
> Where can i find some material to do this.
>
> Tanks
>

1918. Re: Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 21:17:24 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <74jA3LZkXuRDFw7g@g3ohx.demon.co.uk>
Source record: 69315

With all those channels mixed together, it would be best to simply use
an A/B switch to switch between the two antennas.
Ian.

In message <43436b5d$1@news.wineasy.se>, SH <sholby@hotmail.com> writes
>Thanks for both you answers its nice to now i stil remember some theory
>eventhough its 10 years since i read some UHF theory (Ended up being a
>programmer :-))))
>
>I think ill go for the notch version. I have made a lot of them and they are
>easy to build but I've noticed that it seams that 3 notches (adjusted to 3
>diff freq.) is some kind of limit. When i put in no. 4 it seams that the
>overall loss increases.
>Do I remember correctly when i state that 2 nothes on the same freq. should
>be a 1/4 wave apart???
>
>Best regards
>
>Svend Holby
>
>"Crazy George" <munschNO@SPAMattglobal.net> wrote in message
>news:4342fba9_3@news1.prserv.net...
>> Ben Jackson has some good points. You need not worry about audio,
>> usually,
>> as the FM capture takes care of the weaker signal. So, filtering the
>> video
>> carrier and near sidebands is all that is necessary.
>>
>> However, in answer to your question, the way you connect bandpass filters
>> in
>> parallel is with power dividers, amplifiers, and power dividers again,
>> backwards as summers. Otherwise, controlling the out of band input and
>> output impedances of several in parallel is a monumental, but solvable
>> task.
>> Spice, anyone?
>>
>> --
>> Crazy George
>> "SH" <sholby@hotmail.com> wrote in message
>> news:43422d26$1@news.wineasy.se...
>>> Hi
>>>
>>> I have come up with one of those crazy DYI ideas which I would like to
>> try

>>> to implement but one thing still remains.
>>>
>>> I have two UHF (TV) arial pointing in different directions and would like
>> to
>>> connect them together through BP filters to minimize noise.
>>> BP = Bandpass
>>> Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3 ch
>>> 49 -
>>> 68/ or high pass
>>> Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2 ch38 -39,
>> BP
>>> 3 ch 47
>>>
>>> I have found formulas to design each section of BF but how to you connect
>>> several BP filters in parallel??? I have investigated some old TV filter
>> and
>>> they have a coil (12 WDG) in and out of each BP section but is that the
>> way
>>> to do it and how does it influence the design of each BP.
>>>
>>> The only approach that I can find is to split the signal into three (-
>> 6dB)
>>> then feed each into a BP filter and the Combine them again (-6dB). This
>> will
>>> result in each BP section seeing 75 Ohms as they shouland they would not
>>> interfere with eachother. Ofcouse i would need a 20 dB amplifier to fix
>> the
>>> loss.
>>>
>>> But is there a better way.
>>>
>>> Best regards
>>>
>>> Svend Holby
>>>
>>>
>>
>>
>
>

--

1919. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 22:09:25 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <di6s1helo1@news.service.uci.edu>
Source record: 69316

Owen Duffy wrote:
> On Tue, 27 Sep 2005 02:04:46 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>
>
>>The transmission line length must only be long enough such that
>>the V/I ratio is forced to the Z0 value. According to some pretty
>>smart guys I asked, that's about 2% of a wavelength.
>
>
> Cecil, do you have some quantitative explanation / support for this?
>
> The treatments that I have seen of transmission line tuners where
> different Zo lines are directly connected do not suggest corrections /
> tolerances of the type you imply.
>
> (IIRC, Terman discusses a fringing capacitance as a means of allowing
> for a physical discontinuity.)
>
> I am not asking whether or not field conditions (and V/I on the
> conductors) immediate to the discontinuity are not Zo of either of the
> lines, just where has the 2% of a wavelength come from?
>
> Owen

As I recall it came from someone on sci.physics.electromag.

But think about it. The surge impedance (Zo) is basically just the ratio of the capacitance per unit length to the inductance per unit length. Those quantities might vary a little bit from one place to another, but probably not by much. And there are undoubtedly end effects which locally pull the capacitance and inductance values away from the ideal. So the length really need only be long enough for the variations to average out and for the total values to become large enough to swamp the end effects.

ac6xg

1920. Re: building a medium wave antenna for 60km area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 23:31:45 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <14dj13-lfr.ln1@p400bob.personal.cox.net>
Source record: 69319

Sorry 150 metres. Wide fingers on keyboard...

Bob Bob wrote:
> The ground mat would
> probably need to be at least 15 metres out from the antenna base.
>

1921. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 23:32:38 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <go0ek1ljtlsa60jos64ge849u073cfohhp@4ax.com>
Source record: 69317

On Fri, 07 Oct 2005 15:09:25 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>But think about it. The surge impedance (Zo) is basically just the
>ratio of the capacitance per unit length to the inductance per unit
>length. Those quantities might vary a little bit from one place to
>another, but probably not by much. And there are undoubtedly end
>effects which locally pull the capacitance and inductance values away
>from the ideal. So the length really need only be long enough for the
>variations to average out and for the total values to become large
>enough to swamp the end effects.

I don't doubt there is a discontinuity that disturbs the fields and
V/I ratio.

What I am asking about is the basis for the 2% of wavelength factor.

If I use RG58C/U on 160m, I read that Cecil is suggesting that the V/I
ratio is significiantly different to Zo for 2% * 160m or 3.2m
(125")from the end of the cable, which seems large when the physical
distance between the inner and outer conductor is 0.001m (0.04").

I am looking for quantitative support for Cecil's 2%.

Owen
--

1922. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-07 23:38:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <di70t0qjk1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69318

Definition of what you are all waffling about :

"The input impedance Zo applies only for the duration of time taken
for an echo to be received back from the point where the line
impedance Zo first changes to another value.".

Distance can be measured either in metres or, if you like, fractions
of a wavelength. Wavelength involves frequency which is rather
meaningless because time is already a variable but on a different
arbitrary scale.

Only Cecil could dream up a use for such an effect.

Reg, G4FGQ

1923. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 00:25:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <emE1f.13305$6e1.10906@newssvr14.news.prodigy.com>
Source record: 69320

Owen Duffy wrote:
> Cecil, do you have some quantitative explanation / support for this?

Nope, but there were no disagreeing postings.

> I am not asking whether or not field conditions (and V/I on the
> conductors) immediate to the discontinuity are not Zo of either of the
> lines, just where has the 2% of a wavelength come from?

As I remember it came from the spacing between conductors Vs wavelength.
The spacing between conductors is about 0.1 inches for RG-58. How many
times that value would you think it would take for a transmission line
to force its Z0 upon the signals? At 10 MHz, 2% of a wavelength (24 inches)
is about 250 times the spacing between conductors.
--
73, Cecil http://www.qsl.net/w5dxp

1924. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 00:33:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wtE1f.13306$6e1.10171@newssvr14.news.prodigy.com>
Source record: 69321

Reg Edwards wrote:
> Only Cecil could dream up a use for such an effect.

Sorry Reg, I only dream of six foot tall blonds with big boobs.
The 2% WL value came from sci.physics.electromag.
--
73, Cecil http://www.qsl.net/w5dxp

1925. BEWARE OF Linda West (925) 876-7441 of CHIPMAN UNITED VAN LINES/Caton Mayflower CONCORD,CA she likes to put peoples names on moving

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 01:00:23 UTC
From: teckard@hotmail.com
Message-ID: <1128733223.405961.210300@g49g2000cwa.googlegroups.com>
Source record: 69322
Cross-posted to: rec.radio.amateur.antenna,alt.religion.angels

BEWARE OF LINDA WEST (925) 876-7441 of CHIPMAN UNITED VAN LINES/
Caton Mayflower she likes to put peoples names on moving
contracts with out there Knowledge or she likes to do Fraud & Forgery
Concord,ca or Caton Mayflower Moving & Storage Movers & Relocation
Service Dublin,ca (925) 876-7441, 925-887-5515,
925-825-5000, 800-825-3866,800-447-9771, 925-609-1800,
800-447-1771, 925-935-4073, 925-828-3985

1926. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 01:01:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <di75ptiou1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69323

> > Only Cecil could dream up a use for such an effect.
>
> Sorry Reg, I only dream of six foot tall blonds with big boobs.
> The 2% WL value came from sci.physics.electromag.

==========

Yes Cec, you've told us before. I read the thread. That newsgroup
has more highly-convincing old-wives than this one has. They are just
a little harder to detect.

2% of wavelength is meaningless unless you also state by how much
input impedance has diverged from Zo after a time T has elapsed.
Wavelength also implies a frequency but what THAT has to do with it is
anybody's guess. It merely adds to the confusion.

Reg, G4FGQ

1927. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 02:13:25 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3j8ek1h0q4j5u2tfs1s3p19d6j4gioejrh@4ax.com>
Source record: 69324

On Sat, 08 Oct 2005 00:25:46 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Cecil, do you have some quantitative explanation / support for this?
>
>Nope, but there were no disagreeing postings.
>
>> I am not asking whether or not field conditions (and V/I on the
>> conductors) immediate to the discontinuity are not Zo of either of the
>> lines, just where has the 2% of a wavelength come from?
>
>As I remember it came from the spacing between conductors Vs wavelength.
>The spacing between conductors is about 0.1 inches for RG-58. How many
>times that value would you think it would take for a transmission line
>to force its Z0 upon the signals? At 10 MHz, 2% of a wavelength (24 inches)
>is about 250 times the spacing between conductors.

It seems different people have this conceptual model of "a transmission line forcing its Z0 upon the signals" in a gradual way, though differing propositions for the length of line that does not behave as predicted by Zo.

An extension of that thinking is in the proposition that I have seen that a Bird 43 cannot give valid readings unless there is at least a quarter wave of 50 ohm line on each side of itself. In this case, the magnitude of significantly affected line seems to be 25%, someone else's is 2%, can they both be correct?

It seems to me that apart from the region of the significant distortion of the fields local to some kind of discontinuity, that the fields further along the line at a distance from the discontinuity large compared to the dimension of the discontinuity (which will often be the conductor spacing) should be as constrained by the physical parameters of the line (V/I=Zo for each travelling wave).

In the case of the Bird 43, I suggest that if had, say, at 1MHz, 75 ohm line and a 75 ohm load on the load side, that the V/I raio for the travelling waves in the region of the sampling element would be so close to 50 ohms as to not materially affect the accuracy of measurements on the 50 ohms coupler section, irrespective of the fact that the sampling element has only 0.02% of a wavelength of 50 ohm line on its load side.

(For avoidance of doubt, nothing in the foregoing is to imply the Bird 43 would be directly measuring or indicating the conditions on the 75 ohm line.)

Owen
--

1928. Re: assymetrical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 03:24:58 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <deeek1hmiped4i1j7kmob8jten4e8q6etb@4ax.com>
Source record: 69325

On Fri, 7 Oct 2005 11:36:34 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Myron Calhoun wrote:
>"Wasn`t the design criteria something like "Make it 40 feet high, and
>feed it 40 feet off center."
>
>The Windom was named for the amateur who described it in an article. It
>was a 1/2-wavelengrh at its lowest frequency of use. A single feed wire
>is connected at 0.34 X the length of the antenna, from one end.
>
>The Windom works best over highly conductive earth using a versatile
>matching network to the transmitter.
>
>The 1/3 length feedpoint from one end is about 1/6 the distance from the
>antenna`s centerpoint. 40 feet off center, makes the antenna 240 feet
>long. This is 1/2-WL at 146 meters. It is 12 meters high. This is 1/4-WL
>at 48 meters and
>1/2-WL at 24 meters.
>
>Best regards, Richard Harrison, KB5WZI

Although Loren Windom, W8ZG/W8GZ, wrote an article about the antenna for QST, he had nothing to do with its development, even though it has taken on his name. Loren was a student at Ohio State while Professors Everitt and Byrne were physics professors and Loren was one of their students. He trailed along with them during their experiments with the off-center fed dipole, wrote up the specifics, submitted his writing to QST, after which the hams started using that antenna. Because Windom's name was on the article as the author, the antenna became known as the Windom in ham circles.

Walt, W2DU

1929. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 03:38:43 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11kefq8um53n22@corp.supernews.com>
Source record: 69226

In my humble opinion, EZNEC is a POS for anything other than a simple "wire antenna". Try to do a true ground plane with bent radials? Try to do a simple patch? Try to do a J? Try to do ANY configuration other than a wire dipole and the sucker chokes.

Jim

"David" <groups@orbitcoms.com> wrote in message
news:9hh1f.9103$U51.3133@news-server.bigpond.net.au...
> Does anyone know how I can model a coaxial sleeve antenna
> on EZNEC ?

1930. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 03:53:55 UTC
From: David <groups@orbitcoms.com>
Message-ID: <npH1f.10246$U51.4239@news-server.bigpond.net.au>
Source record: 69227

Jim,

What would be your alternate suggestion ?

Thanks

Regards

David

ERST Engineering wrote:
> In my humble opinion, EZNEC is a POS for anything other than a simple "wire
> antenna". Try to do a true ground plane with bent radials? Try to do a
> simple patch? Try to do a J? Try to do ANY configuration other than a wire
> dipole and the sucker chokes.
>
> Jim
>
>
>
> "David" <groups@orbitcoms.com> wrote in message
> news:9hh1f.9103$U51.3133@news-server.bigpond.net.au...
>
>>Does anyone know how I can model a coaxial sleeve antenna
>>on EZNEC ?
>
>
>

1931. Re: Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 03:58:16 UTC
From: Crazy George <munschNO@SPAMattglobal.net>
Message-ID: <4347476c_3@news1.prserv.net>
Source record: 69228

Well, you know, it depends......

Optimally, one would like to have separate, independent antennas for each channel, the way we constructed the first CATV head ends up in the hills of Pennsylvania in the 1950s. But, then Scientific Atlanta and others designed LPD antennas which covered multiple channels coming from one general direction, and since tower space and loading was always a concern (don't forget multiple runs of low loss coax enter that equation also), multiple antennas gave way to fewer antennas and lots of signal processing down at the base of the tower. Some sites had racks and racks of gear.

If the requirement is to provide signals to only one TV, a switch could be a good choice. On the other hand, if the design is for a whole house, or apartment complex or commercial building signal distribution system, then it gets progressively more complicated. Since Svend didn't specify, one had to conclude that he had already considered and rejected the easy solutions.
--
Crazy George

"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message news:74jA3LZkXuRDFw7g@g3ohx.demon.co.uk...
> With all those channels mixed together, it would be best to simply use
> an A/B switch to switch between the two antennas.
> Ian.
>
>
> In message <43436b5d$1@news.wineasy.se>, SH <sholby@hotmail.com> writes
> >Thanks for both you answers its nice to now i stil remember some theory
> >eventhough its 10 years since i read some UHF theory (Ended up being a
> >programmer :-))))
> >
> >I think ill go for the notch version. I have made a lot of them and they
are
> >easy to build but I've noticed that it seams that 3 notches (adjusted to
3
> >diff freq.) is some kind of limit. When i put in no. 4 it seams that the
> >overall loss increases.
> >Do I remember correctly when i state that 2 nothes on the same freq.
should
> >be a 1/4 wave apart???
> >
> >Best regards
> >
> >Svend Holby
> >

> >"Crazy George" <munschNO@SPAMattglobal.net> wrote in message
> >news:4342fba9_3@news1.prserv.net...
> >> Ben Jackson has some good points. You need not worry about audio,
> >> usually,
> >> as the FM capture takes care of the weaker signal. So, filtering the
> >> video
> >> carrier and near sidebands is all that is necessary.
> >>
> >> However, in answer to your question, the way you connect bandpass
filters
> >> in
> >> parallel is with power dividers, amplifiers, and power dividers again,
> >> backwards as summers. Otherwise, controlling the out of band input and
> >> output impedances of several in parallel is a monumental, but solvable
> >> task.
> >> Spice, anyone?
> >>
> >> --
> >> Crazy George
> >> "SH" <sholby@hotmail.com> wrote in message
> >> news:43422d26$1@news.wineasy.se...
> >>> Hi
> >>>
> >>> I have come up with one of those crazy DYI ideas which I would like
to
> >> try
> >>> to implement but one thing still remains.
> >>>
> >>> I have two UHF (TV) arial pointing in different directions and would
like
> >> to
> >>> connect them together through BP filters to minimize noise.
> >>> BP = Bandpass
> >>> Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3 ch
> >>> 49 -
> >>> 68/ or high pass
> >>> Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2
ch38 -39,
> >> BP
> >>> 3 ch 47
> >>>
> >>> I have found formulas to design each section of BF but how to you
connect
> >>> several BP filters in parallel??? I have investigated some old TV
filter
> >> and
> >>> they have a coil (12 WDG) in and out of each BP section but is that
the
> >> way
> >>> to do it and how does it influence the design of each BP.

> >>>
> >>> The only approach that I can find is to split the signal into three (-
> >> 6dB)
> >>> then feed each into a BP filter and the Combine them again (-6dB).
This
> >> will
> >>> result in each BP section seeing 75 Ohms as they shouland they would
not
> >>> interfere with eachother. Ofcouse i would need a 20 dB amplifier to
fix
> >> the
> >>> loss.
> >>>
> >>> But is there a better way.
> >>>
> >>> Best regards
> >>>
> >>> Svend Holby
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1932. Suitable antenna for RF behind a vehicle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 03:59:45 UTC
From: David <groups@orbitcoms.com>
Message-ID: <RuH1f.10251$U51.2061@news-server.bigpond.net.au>
Source record: 69229

I have an application that requires RF to be propagated for several hundred metres behind a vehicle at 433 MHz.

I am looking for ideas for an antenna that could be built into the metal enclosure that houses the electronics. (ie. A single square or round enclosure).

Ideally the field would fan out behind the vehicle and not have any side lobes. (Only want RF behind the vehicle).
I am not worried about vertical propagation, Mainly just parallel to the ground about 1.5m.

I am not sure if maybe I could get a corner reflector, patch antenna, PCB loop, parabola or slot antenna into a fairly small surface area (around 200mm x 200mm).

The transmit power is 25mW.

Any ideas much appreciated.

Thanks

Regards

David

1933. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 04:13:35 UTC
From: Dan Richardson <>
Message-ID: <ckhek119hg6tng2hsdo6t17feafvpj12nm@4ax.com>
Source record: 69230

On Fri, 7 Oct 2005 20:38:43 -0700, "RST Engineering"
<jim@rstengineering.com> wrote:

>In my humble opinion, EZNEC is a POS for anything other than a simple "wire
>antenna". Try to do a true ground plane with bent radials? Try to do a
>simple patch? Try to do a J? Try to do ANY configuration other than a wire
>dipole and the sucker chokes.

I suggest that it is your models that may be choking. EZNEC uses the
NEC engine for caculations and NEC can do all the items you mention
above.

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

1934. Re: BEWARE OF Linda West (925) 876-7441 of CHIPMAN UNITED VAN LINES/Caton Mayflower CONCORD,CA she likes to put peoples names on moving

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 04:57:58 UTC
From: solo <dkjmcintyre@home.nl>
Message-ID: <1128747478.819091.142120@g47g2000cwa.googlegroups.com>
Source record: 69231
Cross-posted to: rec.radio.amateur.antenna,alt.religion.angels

Isn`t this a litttle bit off topic?
O no, wait, I know. Ofcourse you`re talking about moving angels!

1935. Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 06:26:31 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <rEJ1f.81198$iW5.74805@fe3.news.blueyonder.co.uk>
Source record: 69232

To continue the saga......

I fitted a variable capacitor to my 10 foot circumference 1mtr loop and am able to tune 80 to almost 15 meters...works well..but.........

How to fit a motor drive !!!.....there seems to be nowhere to acquire cogs, pulleys or gear sets....no model shops around that carries components, that i`ve googled for anyway..(now when i were a lad!)..... ;-)

Can you imagine how fast that electric motor turns the capacitor, even with reduced voltage???..you have to be quick i can tell you or you miss the sweet spot heh,heh....

Seriously, any ideas to slow the tuning rate will be most welcome .

Thanks.

Lee......G6ZSG.....

1936. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 07:30:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h4tek1tsolpiscp31rn844v6ijebdhaoda@4ax.com>
Source record: 69233

On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:
>Seriously, any ideas to slow the tuning rate will be most welcome .

Hi Lee,

Use the old stand-by of the screwdriver antennas, a screwdriver motor.

However, I expect you want two speed - then try a variable speed
battery powered drill.

For fine resolution and high speed both, look into the world of
Stepper motors. You can even design for calibrated settings instead
of hunting - or rough position indicators.

73's
Richard Clark, KB7QHC

1937. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 08:05:35 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <j5L1f.7934$tS4.6168@fe1.news.blueyonder.co.uk>
Source record: 69234

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:h4tek1tsolpiscp31rn844v6ijebdhaoda@4ax.com...
> On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
> wrote:
> >Seriously, any ideas to slow the tuning rate will be most welcome .
>
> Hi Lee,
>
> Use the old stand-by of the screwdriver antennas, a screwdriver motor.

Tried that, it has far to much torque even on low volts .... damaged the
gearing on my spare cap :-/

> However, I expect you want two speed - then try a variable speed
> battery powered drill.

Good idea, worth looking into!!

> For fine resolution and high speed both, look into the world of
> Stepper motors. You can even design for calibrated settings instead
> of hunting - or rough position indicators.

I`ll do a google for steppermotors .... thanks.

Lee.....G6ZSG....

>
> 73's
> Richard Clark, KB7QHC

1938. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 08:07:18 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <b5tuTEH243RDFA$j@ifwtech.co.uk>
Source record: 69235

Cecil Moore wrote:
>Owen Duffy wrote:
>> Cecil, do you have some quantitative explanation / support for this?
>
>Nope, but there were no disagreeing postings.
>
>> I am not asking whether or not field conditions (and V/I on the
>> conductors) immediate to the discontinuity are not Zo of either of the
>> lines, just where has the 2% of a wavelength come from?
>
>As I remember it came from the spacing between conductors Vs wavelength.
>The spacing between conductors is about 0.1 inches for RG-58. How many
>times that value would you think it would take for a transmission line
>to force its Z0 upon the signals? At 10 MHz, 2% of a wavelength (24 inches)
>is about 250 times the spacing between conductors.

Maybe the electromagnetics people have a useful way to visualize it...

Deep inside the coax, the electric field lines between the inner and outer of the coax are exactly at right-angles to the main axis. Where that is exactly true, you have a pure TE10 mode so it's also valid to assume that V/I is exactly equal to Zo.

Very close to the end of the coax, the electric field lines from the center conductor start to reach out and connect with whatever is out there beyond the end of the shield. Then you no longer have pure TE10 and can no longer assume that V/I=Zo.

Coming at it from the other direction, the question would be: how far into the coax must you go before the field lines become accurately at right-angles?

We can be sure that the field lines won't suddenly snap from being divergent to being accurately at right-angles, so what we're really asking is: how far before the field lines are near-enough at right angles to make V/I=Zo a good engineering approximation?

Intuitively, the diverging field lines only seem likely to occur within a few diameters of the end of the shield. Field lines always connect with highly conducting surfaces at right-angles, and they won't like to be sharply bent to run along the axis of the coax.

In other words, the effect would seem to be mainly a function of shield diameter D. Again intuitively, I can't see where wavelength would come into it, unless D itself is a significant fraction of the wavelength (which is normally never true, and even microwave engineers try to avoid

it).

Following this picture of diverging field lines, there should also be a secondary effect depending on how the inner and shield of the coax are connected to the circuit outside.

All of this suggests that it's impossible to give a single answer that would be valid for all cases (unless you choose a number that's so big, it can't fail to be correct... like "120 radials" :-)

However, none of this speculation is of any practical consequence. All practical experience indicates that if a line is so short that V/I is not quite equal to Zo, the impedance transformation along that line will be so small that the effect of any Zo error is lost in the noise.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1939. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 08:14:43 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Sp8sH8Hz$3RDFAfl@ifwtech.co.uk>
Source record: 69236

Lee wrote:
>To continue the saga......
>
>I fitted a variable capacitor to my 10 foot circumference 1mtr loop and am
>able to tune 80 to almost 15 meters...works well..but.........
>
>How to fit a motor drive !!!.....there seems to be nowhere to acquire cogs,
>pulleys or gear sets....no model shops around that carries components, that
>i`ve googled for anyway..(now when i were a lad!).... ;-)
>
>Can you imagine how fast that electric motor turns the capacitor, even with
>reduced voltage???..you have to be quick i can tell you or you miss the
>sweet spot heh,heh....
>
>Seriously, any ideas to slow the tuning rate will be most welcome .

Lots of model-making and robotics suppliers in the UK have small
plastic gearboxes, plastic shafts, couplers etc. Try some of the links
from my "Components and Suppliers" page.

As a short-cut, try to find a small battery-powered barbecue spit motor
at one of the home and leisure stores (probably in the end-of-season
bargain bin). They are still a bit fast, but will run at reduced voltage
or with pulse-width control to slow them down.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1940. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 08:16:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6kvek1lupr22cbig9mbd7fdbor8gmmbblh@4ax.com>
Source record: 69237

On Sat, 08 Oct 2005 08:05:35 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:

>> Use the old stand-by of the screwdriver antennas, a screwdriver motor.
>
>Tried that, it has far to much torque even on low volts .... damaged the
>gearing on my spare cap :-/

Hi Lee,

One way to control that, at least speed-wise, is to turn the DC
voltage into pulse-width modulated voltage. You are always applying
the same voltage, but you turn it on for a short-to-long time, and off
for a long-to-short time over any interval. You change the speed by
changing these times. This is more properly called Dwell Time.

This offers the prospects of maintaining a constant torque over a
considerable range of speed. I'm not certain by what you mean about
"too much torque," unless you have too much resistance for the gears
to drive.... Stepper motors are also noted for high torque - it goes
with the turf.

73's
Richard Clark, KB7QHC

1941. Re: Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 08:18:27 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <QYeKv0CTD4RDFwdS@g3ohx.demon.co.uk>
Source record: 69238

Re-reading Svend's mail, he wants Channels 22 to 37, 40 to 44, and 49 to 64 (Antenna 1). He then needs to add Channel 21 and 38 + 39 (Antenna 2). This should not be too difficult.

Obviously, the filters will not totally reject channels which are close (for example, the 22 to 37 filter will not reject 21 very well). There will be a certain amount of unwanted noise outside the passband of each filter, and ghosting (due to pick-up on the 'wrong' antenna) may not be totally eliminated. It may be necessary to fit one or two notch filters.

I would first fit a level-raising amplifier to the feed from each antenna. There is nothing like having lots of signal level to play with!

At the output of Amplifier 1, use a 4*-way CATV splitter to obtain four feeds. The loss will be about 8dB (for a splitter which uses ferrite transformers). Each output will be isolated from the others (typically by about 25dB).

[*Note: 2, 4 and 8-way splitters are 'standard building blocks' in the world of cable TV. You can get 3-way and 6-way, but they are not easy to find).

To three of the feeds, fit bandpass filter for Channels 22 to 37, 40 to 44 and 49 to 64. He can use the fourth output for monitoring.

At the output of Amplifier 2, use another 4*-way CATV splitter to obtain 4 feeds. To two of the feeds, fit bandpass filter for Channels 21 and 38+39.

He now has six separate TV feeds. If he wants, he can fit in-line variable attenuators to each to equalise the signal levels.

The six TV feeds are then connected together using an 8*-way splitter (as a combiner) or two 4-ways then a 2-way. There should be little interaction between them. The loss will be about 11dB.

Assuming a loss of 2dB for each filter, the total loss of this system will be 8 + 11 + 2 = 21dB.

All that remains it to design (or obtain). 'normal' filters for each block of channels. There is a company in the UK which has a good range of equipment for MATV and CATV:
http://www.taylorbros.co.uk
I don't see anything there which is exactly what Svend wants, but here probably other companies in Europe which have can supply similar equipment.

Ian.

In message <4347476c_3@news1.prserv.net>, Crazy George
<munschNO@SPAMattglobal.net> writes
>Well, you know, it depends......
>
>Optimally, one would like to have separate, independent antennas for each
>channel, the way we constructed the first CATV head ends up in the hills of
>Pennsylvania in the 1950s. But, then Scientific Atlanta and others
>designed LPD antennas which covered multiple channels coming from one
>general direction, and since tower space and loading was always a concern
>(don't forget multiple runs of low loss coax enter that equation also),
>multiple antennas gave way to fewer antennas and lots of signal processing
>down at the base of the tower. Some sites had racks and racks of gear.
>
>If the requirement is to provide signals to only one TV, a switch could be a
>good choice. On the other hand, if the design is for a whole house, or
>apartment complex or commercial building signal distribution system, then it
>gets progressively more complicated. Since Svend didn't specify, one had to
>conclude that he had already considered and rejected the easy solutions.
>--
>Crazy George
>
>"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message
>news:74jA3LZkXuRDFw7g@g3ohx.demon.co.uk...
>> With all those channels mixed together, it would be best to simply use
>> an A/B switch to switch between the two antennas.
>> Ian.
>>
>>
>> In message <43436b5d$1@news.wineasy.se>, SH <sholby@hotmail.com> writes
>> >Thanks for both you answers its nice to now i stil remember some theory
>> >eventhough its 10 years since i read some UHF theory (Ended up being a
>> >programmer :-))))
>> >
>> >I think ill go for the notch version. I have made a lot of them and they
>>are
>> >easy to build but I've noticed that it seams that 3 notches (adjusted to
>>3
>> >diff freq.) is some kind of limit. When i put in no. 4 it seams that the
>> >overall loss increases.
>> >Do I remember correctly when i state that 2 nothes on the same freq.
>>should
>> >be a 1/4 wave apart???
>> >
>> >Best regards
>> >
>> >Svend Holby
>> >
>> >"Crazy George" <munschNO@SPAMattglobal.net> wrote in message
>> >news:4342fba9_3@news1.prserv.net...
>> >> Ben Jackson has some good points. You need not worry about audio,
>> >> usually,

>> >> as the FM capture takes care of the weaker signal. So, filtering the
>> >> video
>> >> carrier and near sidebands is all that is necessary.
>> >>
>> >> However, in answer to your question, the way you connect bandpass
>filters
>> >> in
>> >> parallel is with power dividers, amplifiers, and power dividers again,
>> >> backwards as summers. Otherwise, controlling the out of band input and
>> >> output impedances of several in parallel is a monumental, but solvable
>> >> task.
>> >> Spice, anyone?
>> >>
>> >> --
>> >> Crazy George
>> >> "SH" <sholby@hotmail.com> wrote in message
>> >> news:43422d26$1@news.wineasy.se...
>> >>> Hi
>> >>>
>> >>> I have come up with one of those crazy DYI ideas which I would like
>to
>> >> try
>> >>> to implement but one thing still remains.
>> >>>
>> >>> I have two UHF (TV) arial pointing in different directions and would
>like
>> >> to
>> >>> connect them together through BP filters to minimize noise.
>> >>> BP = Bandpass
>> >>> Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3 ch
>> >>> 49 -
>> >>> 68/ or high pass
>> >>> Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2
>ch38 -39,
>> >> BP
>> >>> 3 ch 47
>> >>>
>> >>> I have found formulas to design each section of BF but how to you
>connect
>> >>> several BP filters in parallel??? I have investigated some old TV
>filter
>> >> and
>> >>> they have a coil (12 WDG) in and out of each BP section but is that
>the
>> >> way
>> >>> to do it and how does it influence the design of each BP.
>> >>>
>> >>> The only approach that I can find is to split the signal into three (-
>> >> 6dB)
>> >>> then feed each into a BP filter and the Combine them again (-6dB).

>This
>> >> will
>> >>> result in each BP section seeing 75 Ohms as they shouland they would
>not
>> >>> interfere with eachother. Ofcouse i would need a 20 dB amplifier to
>fix
>> >> the
>> >>> loss.
>> >>>
>> >>> But is there a better way.
>> >>>
>> >>> Best regards
>> >>>
>> >>> Svend Holby
>> >>>
>> >>>
>> >>
>> >>
>> >
>> >
>>
>> --
>>
>
>

--

1942. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 09:00:21 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <v92fk15p4e5sh59fo4mkvvi8287ko2an8d@4ax.com>
Source record: 69239

On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:

>To continue the saga......
>
>I fitted a variable capacitor to my 10 foot circumference 1mtr loop and am
>able to tune 80 to almost 15 meters...works well..but.........
>
>How to fit a motor drive !!!.....there seems to be nowhere to acquire cogs,
>pulleys or gear sets....no model shops around that carries components, that
>i`ve googled for anyway..(now when i were a lad!).... ;-)
>
>Can you imagine how fast that electric motor turns the capacitor, even with
>reduced voltage???..you have to be quick i can tell you or you miss the
>sweet spot heh,heh....
>
>Seriously, any ideas to slow the tuning rate will be most welcome .

Assuming it is a permag motor, reduce the motor voltage... add a
current limited driver to limit the torque, an electronic shear pin if
you like... except it doesn't shear.

I am assuming that you are trying to tune the reactance out, to
achieve an acceptable VSWR on the line to the ATU/transceiver. Have
you considered automating the capacitor drive. You could build a phase
detector (between V and I at the antenna input) as a sensor to control
the motor drive.

Owen
--

1943. www.liveboard.8my.com

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 10:47:03 UTC
From: thegreat_lover2003@yahoo.com
Message-ID: <1128768422.972554.248230@o13g2000cwo.googlegroups.com>
Source record: 69240

Hello Friend

You are invited to join www.liveboard.8my.com

There you can discuss / port on various topics like Poems, Love,
Romance, Flirting, Quotes, Shayris Movies, Music Personal Problem
Discussions,, Computers & Internet (Hacking at security end),
Animations, Business Employment and lots more.

Register at www.liveboard.8my.com which is absolutely free.

See you there

Note: This is not SPAM

1944. Re: Cheap interface for your Icom

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 11:04:32 UTC
From: FredSmith <nospam@nospam.net>
Message-ID: <dg9fk111lpop6be79toraqrb93i58pnb29@4ax.com>
Source record: 69241

While looking for some information on this cable, I ran across this
web site. http://home.hvc.rr.com/bpetrow

About halfway down the page he has some info in a zip file. It may be
worth looking http://home.hvc.rr.com/bpetrow/GRE_Cables.ZIP

73 FS

On Thu, 6 Oct 2005 16:18:29 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I wanted to use Ham Radio Deluxe with my Icom radio. It requires an CI-V
>interface. Being the cheapskate that I am, I checked the internet for "roll
>your own" information.
>
>What I found looked really familiar, turns out it is identical to an
>interface I built to program my Radio Shack Pro 95 scanner. Plugged it in
>and it worked just great.
>
>This means you can purchase a RadioShack 20-289 cable for $24.99 and replace
>the high dollar CI-V if you choose not to build your own.
>

1945. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 11:30:32 UTC
From: Adelphia <dboley@adelphia.net>
Message-ID: <aOudna1Gt_eTM9reRVn-rg@adelphia.com>
Source record: 69242

Here in the USA ALL Electronics had 12volt 6RPM DC motors. I drive my large 4600v variable with it using a DC pulse width motor speed control. The motor control was around $22 as a kit in the USA. I would actually like about 3RPM since the motor control slow speed needed for fine tuning is in a small range. I could gear it but a mechanical mess. A simple DPDT switch is used to reverse direction.

Check your electronic parts dealers to see if they have motor with built-in gear boxes. Best way to do it.

Dick N3HKN
PS: My loop is 1 meter on a side square and is used on 20 meters in the attic. I have set it outside where the noise level is less but on really cold days the motor will not turn. Used a simple plastic container from a local discount store. I'll stick to the attic since I have a GAP vertical as well. Yes, they are comparable given the dipole like pattern of the loop.

"Owen Duffy" <owen@no.where> wrote in message
news:v92fk15p4e5sh59fo4mkvvi8287ko2an8d@4ax.com...
> On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
> wrote:
>
>>To continue the saga......
>>
>>I fitted a variable capacitor to my 10 foot circumference 1mtr loop and am
>>able to tune 80 to almost 15 meters...works well..but.........
>>
>>How to fit a motor drive !!!.....there seems to be nowhere to acquire
>>cogs,
>>pulleys or gear sets....no model shops around that carries components,
>>that
>>i`ve googled for anyway..(now when i were a lad!).... ;-)
>>
>>Can you imagine how fast that electric motor turns the capacitor, even
>>with
>>reduced voltage???..you have to be quick i can tell you or you miss the
>>sweet spot heh,heh....
>>
>>Seriously, any ideas to slow the tuning rate will be most welcome .
>
> Assuming it is a permag motor, reduce the motor voltage... add a
> current limited driver to limit the torque, an electronic shear pin if
> you like... except it doesn't shear.
>
> I am assuming that you are trying to tune the reactance out, to

> achieve an acceptable VSWR on the line to the ATU/transceiver. Have
> you considered automating the capacitor drive. You could build a phase
> detector (between V and I at the antenna input) as a sensor to control
> the motor drive.
>
> Owen
> --

1946. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 12:41:10 UTC
From: Dave <noone@nowhere.com>
Message-ID: <k_ednQSXCOT3I9reRVn-gg@crocker.com>
Source record: 69243

"Cecil Moore" <mycall@arrl.net> wrote in message
news:wtE1f.13306$6e1.10171@newssvr14.news.prodigy.com...
> Reg Edwards wrote:
>> Only Cecil could dream up a use for such an effect.
>
> Sorry Reg, I only dream of six foot tall blonds with big boobs.
> The 2% WL value came from sci.physics.electromag.
> --
> 73, Cecil http://www.qsl.net/w5dxp

then please take it back there. it makes no sense as it would force the effect to get longer and longer at lower frequencies. the more logical effect is fringing effects from edges of the shield if it isn't properly connected to a proper termination... this is something that i can measure with my tdr, and it is definately a very short range effect. just think, if i pulse a line with a 1khz square wave and the effect got longer with lower frequency what would the return pulse look like?

1947. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 12:50:30 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <qgP1f.9203$tS4.3361@fe1.news.blueyonder.co.uk>
Source record: 69244

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:6kvek1lupr22cbig9mbd7fdbor8gmmbblh@4ax.com...
> On Sat, 08 Oct 2005 08:05:35 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
> wrote:
>
> >> Use the old stand-by of the screwdriver antennas, a screwdriver motor.
> > >
> > >Tried that, it has far to much torque even on low volts .... damaged the
> > >gearing on my spare cap :-/
> >
> > Hi Lee,
> >
> > One way to control that, at least speed-wise, is to turn the DC
> > voltage into pulse-width modulated voltage. You are always applying
> > the same voltage, but you turn it on for a short-to-long time, and off
> > for a long-to-short time over any interval. You change the speed by
> > changing these times. This is more properly called Dwell Time.

Yes, i`ve been looking into that and it seems the best way to go, a local
supplier has a panel mount version in stock £15.00 ($16.00??).....so!!.

> This offers the prospects of maintaining a constant torque over a
> considerable range of speed. I'm not certain by what you mean about
> "too much torque," unless you have too much resistance for the gears
> to drive....

Not enough resistance, the capacitor comes to the end of its travel but the
torque wants to continue..... hence the damage to my spare capacitor!!!.

Regards.

Lee...G6ZSG......

> 73's
> Richard Clark, KB7QHC

1948. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 12:53:11 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <XiP1f.9204$tS4.5021@fe1.news.blueyonder.co.uk>
Source record: 69245

"Owen Duffy" <owen@no.where> wrote in message
news:v92fk15p4e5sh59fo4mkvvi8287ko2an8d@4ax.com...
> On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
> wrote:
>
> >To continue the saga......
> >
> >I fitted a variable capacitor to my 10 foot circumference 1mtr loop and
am
> >able to tune 80 to almost 15 meters...works well..but.........
> >
> >How to fit a motor drive !!!.....there seems to be nowhere to acquire
cogs,
> >pulleys or gear sets....no model shops around that carries components,
that
> >i`ve googled for anyway..(now when i were a lad!).... ;-)
> >
> >Can you imagine how fast that electric motor turns the capacitor, even
with
> >reduced voltage???..you have to be quick i can tell you or you miss the
> >sweet spot heh,heh....
> >
> >Seriously, any ideas to slow the tuning rate will be most welcome .
>
> Assuming it is a permag motor, reduce the motor voltage... add a
> current limited driver to limit the torque, an electronic shear pin if
> you like... except it doesn't shear.
>
> I am assuming that you are trying to tune the reactance out, to
> achieve an acceptable VSWR on the line to the ATU/transceiver. Have
> you considered automating the capacitor drive. You could build a phase
> detector (between V and I at the antenna input) as a sensor to control
> the motor drive.

Doesn`t work with a magloop!!!.....thanks anyway.

Lee.....G6ZSG.....

>
> Owen
> --

1949. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 12:58:53 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <hoP1f.9206$tS4.6654@fe1.news.blueyonder.co.uk>
Source record: 69246

"Adelphia" <dboley@adelphia.net> wrote in message
news:aOudna1Gt_eTM9reRVn-rg@adelphia.com...
> Here in the USA ALL Electronics had 12volt 6RPM DC motors. I drive my
large
> 4600v variable with it using a DC pulse width motor speed control. The
motor
> control was around $22 as a kit in the USA. I would actually like about
3RPM
> since the motor control slow speed needed for fine tuning is in a small
> range. I could gear it but a mechanical mess. A simple DPDT switch is used
> to reverse direction.
>
> Check your electronic parts dealers to see if they have motor with
built-in
> gear boxes. Best way to do it.

Yes, thanks Lee....G6ZSG......

>
> Dick N3HKN
> PS: My loop is 1 meter on a side square and is used on 20 meters in the
> attic. I have set it outside where the noise level is less but on really
> cold days the motor will not turn. Used a simple plastic container from a
> local discount store. I'll stick to the attic since I have a GAP vertical
as
> well. Yes, they are comparable given the dipole like pattern of the loop.
>

1950. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 13:20:17 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <lIP1f.82438$iW5.17349@fe3.news.blueyonder.co.uk>
Source record: 69247

"Lee" <lo012a4519@blueyonder.co.uk> wrote in message
news:qgP1f.9203$tS4.3361@fe1.news.blueyonder.co.uk...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:6kvek1lupr22cbig9mbd7fdbor8gmmbblh@4ax.com...
> > On Sat, 08 Oct 2005 08:05:35 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
> > wrote:
> >
> >> Use the old stand-by of the screwdriver antennas, a screwdriver
motor.
> >
> >Tried that, it has far to much torque even on low volts .... damaged
the
> >gearing on my spare cap :-/
> >
> > Hi Lee,
> >
> > One way to control that, at least speed-wise, is to turn the DC
> > voltage into pulse-width modulated voltage. You are always applying
> > the same voltage, but you turn it on for a short-to-long time, and off
> > for a long-to-short time over any interval. You change the speed by
> > changing these times. This is more properly called Dwell Time.
>
> Yes, i`ve been looking into that and it seems the best way to go, a local
> supplier has a panel mount version in stock 15.00 ($16.00??).....so!!.

Typo ($26.00??)......

>
> > This offers the prospects of maintaining a constant torque over a
> > considerable range of speed. I'm not certain by what you mean about
> > "too much torque," unless you have too much resistance for the gears
> > to drive....
>
> Not enough resistance, the capacitor comes to the end of its travel but
the
> torque wants to continue..... hence the damage to my spare capacitor!!!.
>
> Regards.
>
> Lee...G6ZSG......
>
> > 73's
> > Richard Clark, KB7QHC

>
>

1951. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 13:36:37 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <FXP1f.13990$ir4.484@edtnps90>
Source record: 69249

"David" <groups@orbitcoms.com> wrote in message
news:9hh1f.9103$U51.3133@news-server.bigpond.net.au...
> Does anyone know how I can model a coaxial sleeve antenna
> on EZNEC ?
>
> I know how to enter a standard Vertical 1/2 wave but not sure how
> to represent the coax going up through the tubing(sleeve) in the lower
> portion.
>
> Thanks in advance.

Just model a vertical dipole. The presence of a coaxial cable, within the lower conductor, will not effect its performance. For your model both upper and lower conductors should be the same diameter. Dissimilar diameters in a model can produce erroneous results.

NEC has its limitations, but alternative, FEM based, programs can cost tens of thousands of dollars.

Regards,

Frank

1952. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 13:54:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <acQ1f.9877$oO2.2032@newssvr27.news.prodigy.net>
Source record: 69250

Lee wrote:
> Seriously, any ideas to slow the tuning rate will be most welcome .

What's wrong with a gear-head motor? I have some in my junk box.
--
73, Cecil http://www.qsl.net/w5dxp

1953. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 13:58:43 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <q1kfk15o6c41lnte2hp54hnikhnc380svn@4ax.com>
Source record: 69251

On Sat, 08 Oct 2005 13:36:37 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>"David" <groups@orbitcoms.com> wrote in message
>news:9hh1f.9103$U51.3133@news-server.bigpond.net.au...
>> Does anyone know how I can model a coaxial sleeve antenna
>> on EZNEC ?
>>
>> I know how to enter a standard Vertical 1/2 wave but not sure how
>> to represent the coax going up through the tubing(sleeve) in the lower
>> portion.
>>
>> Thanks in advance.
>
>Just model a vertical dipole. The presence of a coaxial cable, within the
>lower conductor, will not effect its performance.

But the presence of the coax below the antenna sure will.

1954. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:00:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9iQ1f.9878$oO2.3813@newssvr27.news.prodigy.net>
Source record: 69252

Dave wrote:
>>The 2% WL value came from sci.physics.electromag.

> then please take it back there. it makes no sense as it would force the
> effect to get longer and longer at lower frequencies.

So how long does the coax have to be to force V/I to Z0
when the applied signal is DC?
--
73, Cecil http://www.qsl.net/w5dxp

1955. safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:08:00 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <4pQ1f.11362$QE1.6241@newsread2.news.atl.earthlink.net>
Source record: 69253

Planning on putting up my own tower and I need a safety harness/working belt of my own. I have used some on other projects so I have an idea of what I want, just need a few web sights/brand names to look for. I don't need a super heavy duty one to work in all day,every day, but one to use two or three times a year.

1956. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:08:19 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <npQ1f.9879$oO2.6920@newssvr27.news.prodigy.net>
Source record: 69254

RST Engineering wrote:
> In my humble opinion, EZNEC is a POS for anything other than a simple "wire
> antenna". Try to do a true ground plane with bent radials? Try to do a
> simple patch? Try to do a J? Try to do ANY configuration other than a wire
> dipole and the sucker chokes.

I've modeled ground planes with bent radials and J antennas
using EZNEC and got reasonable results. Never tried a patch.
EZNEC's limitations are well known and well documented so
knowledgeable users can avoid those pitfalls. Of course,
nothing is foolproof.
--
73, Cecil http://www.qsl.net/w5dxp

1957. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:13:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <OtQ1f.9881$oO2.6146@newssvr27.news.prodigy.net>
Source record: 69255

Owen Duffy wrote:
> An extension of that thinking is in the proposition that I have seen
> that a Bird 43 cannot give valid readings unless there is at least a
> quarter wave of 50 ohm line on each side of itself. In this case, the
> magnitude of significantly affected line seems to be 25%, someone
> else's is 2%, can they both be correct?

I think if you will recheck that posting you will find the assertion
was that a Bird 43 cannot give valid readings by sampling at a point.
The line must be at least 1/4WL, and preferably 1/2WL, so that voltage
maximums and minimums will exist and can be measured.

And that 2% of a wavelength is from my faulty memory. I'll try to
Google and find the exact quotation.
--
73, Cecil http://www.qsl.net/w5dxp

1958. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:14:58 UTC
From: Dave <noone@nowhere.com>
Message-ID: <s8udnTvBD8H4SdreRVn-iQ@crocker.com>
Source record: 69256

"Cecil Moore" <mycall@arrl.net> wrote in message
news:9iQ1f.9878$oO2.3813@newssvr27.news.prodigy.net...
> Dave wrote:
>>>The 2% WL value came from sci.physics.electromag.
>
>> then please take it back there. it makes no sense as it would force the
>> effect to get longer and longer at lower frequencies.
>
> So how long does the coax have to be to force V/I to Z0
> when the applied signal is DC?
> --
> 73, Cecil http://www.qsl.net/w5dxp

just enough for any fringe effects to become negligible... no more than a
couple diameters if the coax as a rough guess.

1959. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:18:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <nzQ1f.9882$oO2.3132@newssvr27.news.prodigy.net>
Source record: 69257

Lee wrote:
> Seriously, any ideas to slow the tuning rate will be most welcome .

The latest QST has a 6 RPM 12v gearhead motor from All
Electronics advertised on page 161 for $13.75. Runs 3
RPM at 6v.
--
73, Cecil http://www.qsl.net/w5dxp

1960. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:20:46 UTC
From: Dave <noone@nowhere.com>
Message-ID: <-fedncQ8sJ9fSNreRVn-hQ@crocker.com>
Source record: 69258

"Cecil Moore" <mycall@arrl.net> wrote in message
news:OtQ1f.9881$oO2.6146@newssvr27.news.prodigy.net...
> Owen Duffy wrote:
>> An extension of that thinking is in the proposition that I have seen
>> that a Bird 43 cannot give valid readings unless there is at least a
>> quarter wave of 50 ohm line on each side of itself. In this case, the
>> magnitude of significantly affected line seems to be 25%, someone
>> else's is 2%, can they both be correct?
>
> I think if you will recheck that posting you will find the assertion
> was that a Bird 43 cannot give valid readings by sampling at a point.
> The line must be at least 1/4WL, and preferably 1/2WL, so that voltage
> maximums and minimums will exist and can be measured.
>
> And that 2% of a wavelength is from my faulty memory. I'll try to
> Google and find the exact quotation.
> --
> 73, Cecil http://www.qsl.net/w5dxp

i want to see a quote from a manufacturer's or good laboratory manual for
that 1/4 or 1/2 wave thing on the bird also.

1961. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 14:33:09 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <5flfk150cu6njucf4amno77qqvrunjrcdr@4ax.com>
Source record: 69259

On Sat, 08 Oct 2005 14:08:00 GMT, "Ralph Mowery"
<rmowery28146@earthlink.net> wrote:

>Planning on putting up my own tower and I need a safety harness/working belt
>of my own. I have used some on other projects so I have an idea of what I
>want, just need a few web sights/brand names to look for. I don't need a
>super heavy duty one to work in all day,every day, but one to use two or
>three times a year.

Because your life is going to depend on this, why would you skimp on
it?

Mine is a Miller with chest, back and waist D-rings. Something like
this:

http://www.grainger.com/Grainger/productdetail.jsp?xi=xi&ItemId=1611763453&ccitem=

1962. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 15:00:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <GaR1f.9892$oO2.4025@newssvr27.news.prodigy.net>
Source record: 69260

Dave wrote:
> just enough for any fringe effects to become negligible... no more than a
> couple diameters of the coax as a rough guess.

Apparently, the 2% of a wavelength that I was remembering was
at 10 MHz. 1'/(98.4*0.66) rounded to 2%. All I was interested
in at the time was proving to Reg that one foot of coax forces
Vfor/Ifor = Vref/Iref = Z0, the boundary conditions assumed
by Bird Wattmeter designers. Since Kevin was not familiar with
PL-239's, I erred on the side of caution with the 2% estimate.

****Quote****
Newsgroups: sci.physics.electromag
From: "Kevin G. Rhoads" <Kevin.Rho...@Dartmouth.edu>
Date: Tue, 07 Oct 2003 12:49:14 -0400
Subject: Re: Transmission Line Question

Cecil wrote:
>It addresses it adequately but doesn't answer any particulars.
>Given PL-239 connectors and RG-213 coax, I wonder what the
>answer would be for 10 MHz?

I'm not familiar with the connectors in question. Assuming
they are properly attached, they should not introduce much
mode diversion. For 10 MHz I would expect that all other modes
would be non-propagating (i.e., evanescent) even though RG-213
is a large coax (improved RG-8 apparently). The speed of propagation
is listed as 66%, so the nominal wavelength is 3/2 times the free
space wavelength for the TEM mode. 3/2 x 30m = 45m, which implies
the decay rate in space for non-TEM modes is going to be large
as the cable diameter is .405" (jacket) which implies the
spacing from inner to outer conductors will be less than .203".
For order of magnitude estimate, assuming the lowest non-TEM mode
can be approximated using a characteristic equation that really
is only applicable in Cartesian geometries:
(1/45m)**2 = (1/.203")**2 + kz**2
Clearly, kz must be imaginary to make this work. thus an
evanescant, non-propagating wave:
kz**2 = (1/45m)**2 - (1/.203")**2
To the accuracy used to date, the first term on the right
is negligible, so the decay rate, alpha, can be estimated:
alpha**2 = - (kz)**2 = (1/2.03")**2
Or, the lowest order undesired mode should reduce intensity
by a factor of 1/e (0.37) in about 2.03"; power will reduce
by that factor squared in the same distance (.135). In

about four inches, undesired mode power is down to about
0.018, in six inches, .00248, and after a foot, 6.14x10-6

You should double check my algebra, but I think the estimate
is reasonable. To put it into other terms, since the wavelength
in the coax dielectric is 45m and the conductor to conductor
spacing is about 2", any non-TEM mode will suffer attenuation
in E-field intensity with a space-rate constant rounghly
equal to the conductor to conductor spacing. INtensity
drops by 1/e = 1/2.71828 every 2 inches. Power availalbe
drops faster, being square of intensity.

So unless almost all the power diverts into an undesireable
mode (by a factor of more than a million to one), one foot
of cable should see pure TEM at the end.

HTH
Kevin
****End Quote****
--
73, Cecil http://www.qsl.net/w5dxp

1963. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 15:01:34 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <dpnfk1p068tm3iniiqbr5av0ft8mfbmjln@4ax.com>
Source record: 69261

On Sat, 08 Oct 2005 14:08:00 GMT, "Ralph Mowery"
<rmowery28146@earthlink.net> wrote:

>Planning on putting up my own tower and I need a safety harness/working belt
>of my own. I have used some on other projects so I have an idea of what I
>want, just need a few web sights/brand names to look for. I don't need a
>super heavy duty one to work in all day,every day, but one to use two or
>three times a year.
>

the Texas Towers website had some safety gear, last time I looked

bob
k5qwg

1964. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 15:09:58 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <634l13-k0t.ln1@p400bob.personal.cox.net>
Source record: 69264

Hi Lee

Two thoughts

Re stepper motors. You can often find them in old junked scanners. A nice cheap source. If you are feeling really cheap the interface can intially be a simple TTL counter cct and some pass transistors. I once used one off my PC parallel port for an EzAl antenna system.

Also look at the possibility of using a piston capacitor and driving that with a threaded bar connected to your motor. This may still be a little fast though. You might also get away with a long lever and threaded bar arrangement if turning a standard rotary capacitor. Kind of limits you to something less than 180 degrees tho.

A car windscreen wiper motor is another possibility also through a threaded bar. (Overkill on the torque tho)

Cheers Bob Vk2YQA

Lee wrote:
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:h4tek1tsolpiscp31rn844v6ijebdhaoda@4ax.com...
>
>>On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
>>wrote:
>>
>>>Seriously, any ideas to slow the tuning rate will be most welcome .

1965. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 15:11:09 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <+HzH8raNG+RDFAor@ifwtech.co.uk>
Source record: 69262

Dave wrote:
>
>"Cecil Moore" <mycall@arrl.net> wrote in message
>news:OtQ1f.9881$oO2.6146@newssvr27.news.prodigy.net...
>> I think if you will recheck that posting you will find the assertion
>> was that a Bird 43 cannot give valid readings by sampling at a point.
>> The line must be at least 1/4WL, and preferably 1/2WL, so that voltage
>> maximums and minimums will exist and can be measured.
>>
>
>i want to see a quote from a manufacturer's or good laboratory manual for
>that 1/4 or 1/2 wave thing on the bird also.
>
>
Cecil was quoting someone else there, and is completely innocent :-)

Here's how the Bird 43 measures VSWR. It contains a pair of needle-fine voltage probes, powered by small explosive charges. When coax is connected at either side, it fires those probes out into the coax until it finds a voltage maximum and a voltage minimum. Then it computes the Voltage Standing Wave Ratio and a recoil mechanism reels the probes back in. It's so slick, it all happens before you even know it.

Warning: when handling a Bird 43, keep all sensitive parts more than 1/2WL from those sockets!

An alternative possibility is that the Bird 43 does give valid readings by sampling at the point where it physically is.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1966. Re: www.liveboard.8my.com

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 15:27:16 UTC
From: Not Spam <yomamam@invalid.invalid>
Message-ID: <pan.2005.10.08.15.27.16.656390@invalid.invalid>
Source record: 69248

thegreat_lover2003 wrote:
[Spam]
> Note: This is not SPAM

Fuck off and die.

Note: This is not an insult.

1967. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 15:31:51 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <HDR1f.11387$QE1.7945@newsread2.news.atl.earthlink.net>
Source record: 69263

> >want, just need a few web sights/brand names to look for. I don't need a
> >super heavy duty one to work in all day,every day, but one to use two or
> >three times a year.
>
> Because your life is going to depend on this, why would you skimp on
> it?
>
> Mine is a Miller with chest, back and waist D-rings. Something like
> this:
>
>
http://www.grainger.com/Grainger/productdetail.jsp?xi=xi&ItemId=1611763453&ccitem=
>
Thanks for the URL. I did not mean I wanted to skimp on the quality or
safety. I spent about half a day several years ago in a demonstration at
work on safety harnesses. They were for fall protection only and not for
working in where you want support and both hands free like you would on a
tower. I just ment that I will only use it for a short period of time and
not very many times per year. What I would be skimping on would be heavy
padding and comfort. Sort of like you can sit on a wooden chair for a short
period of time but if you had to sit all day every day you would want to
spend lots more and get a good padded chair.

1968. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:23:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rhsfk1dtdfpkf52omp4a2v66i2eq9kcj7f@4ax.com>
Source record: 69265

On Sat, 08 Oct 2005 12:50:30 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:
>torque wants to continue..... hence the damage to my spare capacitor!!!.

Hi Lee,

Then the proper design incorporates a travel limit switch.

73's
Richard Clark, KB7QHC

1969. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:30:47 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <9csfk155a41adahgibgjuddtgd6r9pas6e@4ax.com>
Source record: 69266

On Sat, 08 Oct 2005 15:31:51 GMT, "Ralph Mowery"
<rmowery28146@earthlink.net> wrote:

>> >want, just need a few web sights/brand names to look for. I don't need a
>> >super heavy duty one to work in all day,every day, but one to use two or
>> >three times a year.
>>
>> Because your life is going to depend on this, why would you skimp on
>> it?
>>
>> Mine is a Miller with chest, back and waist D-rings. Something like
>> this:
>>
>>
>http://www.grainger.com/Grainger/productdetail.jsp?xi=xi&ItemId=1611763453&ccitem=
>>
>Thanks for the URL. I did not mean I wanted to skimp on the quality or
>safety. I spent about half a day several years ago in a demonstration at
>work on safety harnesses. They were for fall protection only and not for
>working in where you want support and both hands free like you would on a
>tower. I just ment that I will only use it for a short period of time and
>not very many times per year. What I would be skimping on would be heavy
>padding and comfort. Sort of like you can sit on a wooden chair for a short
>period of time but if you had to sit all day every day you would want to
>spend lots more and get a good padded chair.

Understood. The one that I liked to has side D-rings so you can use
it similar to a lineman's belt. I confess to near terror when I'm
first on the tower, which partially subsides after a while. I use
both a belt and suspenders approach with a safety rope and carbiner
clipped to the chest ring and the tower while ascending or descending
and a standard belt to the waist rings for two-hand work.

There is another safety issue that you can read about here:

http://www.cdc.gov/elcosh/docs/d0500/d000568/d000568.html

I live in a semi-rural area with a fire department station about three
miles away, but with a small staff. I sent a copy of this paper to
them with some remarks that I did climb on occassion and if they had
to rescue me, they should be aware of these issues. A paramedic
called me and told me that this was all very interesting, but they
wouldn't get to me in time to save me anyway, so not to worry :-).

1970. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:31:17 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <pvS1f.2317$S4.209@edtnps84>
Source record: 69267

>>Just model a vertical dipole. The presence of a coaxial cable, within the
>>lower conductor, will not effect its performance.
>
> But the presence of the coax below the antenna sure will.

As an experiment I modeled a #14 AWG, 133 segment,134 ft free space dipole. The input impedance at 3.575 MHz is 74.01 - j 0.749 ohms. Adding an additional 25 ft wire at one end -- ends separated by 1.2" -- the input impedance becomes 74.155 - j1.97 ohms. There is no discernable effect on the radiation pattern.

While this test is not precisely equivalent; the presence of a, non connected, axial extension appears to have only a minimal effect on the antenna parameters.

Regards,

Frank

1971. Re: Suitable antenna for RF behind a vehicle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:31:47 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <ks8l13-p4t.ln1@p400bob.personal.cox.net>
Source record: 69274

Hi David

There are lots of possibilities here. Generally speaking though confining the antenna to a metal enclosure of 200mm x 200mm is going to severely impact its efficiency. I'd suggest that if you really want to use this size constraint make part of it out of something transparent to the signal (eg plastic/fibreglass)

My first thought (and there are bound to be many more) is to setup a single full wave circular loop fed through a 1/4 wavelength balun such that the shield on the opposite side of the loop from the feedpoint is "grounded" there. Then mount it in front of a metal plate of gauze inside the plastic thing that contains it. If it is a square shaped box make it a square full wave (quad) shape. For horiz polarization the antenna would be fed at top or bottom of loop.

Assuming the TX/RX device needs a 50 ohm antenna you can then adjust the loop to plate/gauze distance to get the best match or received field strength.

You could of course mount the antenna off the metal box face some, and maybe use plastic of the same metal box dimensions if it is important to keep it enclosed.

My gut feel for approximate dimensions are as follows;

Antenna to metal plate/gauze - 50-100mm

Antenna diameter (if circular) - 200-240 mm

Antenna side length (if square) - 170-190 mm

This antenna would probably give you a large single horiz lobe in the vicinty of 120 degrees half power beamwidth. This vertical pattern will of course be affected by the nearby ground and much of our radiation will be angled upwards and broken into a few lobes.

If the 200mm is a hard dimension number I'd suggest you consider lightly loading the loop with some inductance to make it smaller. This will of course impact performance. I still maintain though that it should be mounted clear of the metal box in plastic or air.

Keep in mind that at 433MHz there is going to be a lot of multipathing and the phase cancellations may be an issue if the distance becomes too great. I havent bothred to figure the path loss for the circuit you have described. It might be worth doing so to make sure its doable. Another consideration is do you expect it to work over the several hundred metres if there is a hill in the way?

Hope you find this useful.

Cheers Bob VK2YQA

David wrote:
>
>
> I have an application that requires RF to be propagated for several
> hundred metres behind a vehicle at 433 MHz.

>
> Any ideas much appreciated.

1972. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:34:06 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <56tfk195avh9mp8t529kiae0i5vnp0ddki@4ax.com>
Source record: 69268

On Sat, 08 Oct 2005 09:30:47 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

[snip]
>
>Understood. The one that I liked to has side D-rings so you can use
>it similar to a lineman's belt.

That should read, "...I linked to..."

1973. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:36:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b9tfk1tekt1u6oj0930kej3cir5m22auf3@4ax.com>
Source record: 69269

On Sat, 8 Oct 2005 14:20:46 -0000, "Dave" <noone@nowhere.com> wrote:
>i want to see a quote from a manufacturer's or good laboratory manual for
>that 1/4 or 1/2 wave thing on the bird also.

Hi Dave,

Don't hold your breath waiting for that Baloney sandwich to be made.

73's
Richard Clark, KB7QHC

1974. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:37:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7etfk1lpvpspfgi7u6vd8u0bm4kc463i44@4ax.com>
Source record: 69270

On Sat, 08 Oct 2005 16:31:17 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>While this test is not precisely equivalent; the presence of a, non
>connected, axial extension appears to have only a minimal effect on the
>antenna parameters.

Hi Frank,

And did resonance go unperturbed?

73's
Richard Clark, KB7QHC

1975. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:45:24 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <EIS1f.2318$S4.697@edtnps84>
Source record: 69271

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:7etfk1lpvpspfgi7u6vd8u0bm4kc463i44@4ax.com...
> On Sat, 08 Oct 2005 16:31:17 GMT, "Frank" <ve6cb@nospam.telus.net>
> wrote:
>
>>While this test is not precisely equivalent; the presence of a, non
>>connected, axial extension appears to have only a minimal effect on the
>>antenna parameters.
>
> Hi Frank,
>
> And did resonance go unperturbed?
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

A nominal 2.5 kHz shift, at 3.575 MHz (0.07%), is about all I can detect.

73,

Frank

1976. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:49:11 UTC
From: Dave <noone@nowhere.com>
Message-ID: <U7mdnZAuCc8WZdreRVn-sg@crocker.com>
Source record: 69272

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:b9tfk1tekt1u6oj0930kej3cir5m22auf3@4ax.com...
> On Sat, 8 Oct 2005 14:20:46 -0000, "Dave" <noone@nowhere.com> wrote:
>>i want to see a quote from a manufacturer's or good laboratory manual for
>>that 1/4 or 1/2 wave thing on the bird also.
>
> Hi Dave,
>
> Don't hold your breath waiting for that Baloney sandwich to be made.
>
> 73's
> Richard Clark, KB7QHC

i'm not, just bored sitting in here watching it rain. over 2" so far today.

1977. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 16:59:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gmufk1tnj8k0bt42ub9keos842tcnes5ul@4ax.com>
Source record: 69273

On Sat, 08 Oct 2005 16:45:24 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>A nominal 2.5 kHz shift, at 3.575 MHz (0.07%), is about all I can detect.

Hi Frank,

Is this shift constant over all axial lengths, or variable?

73's
Richard Clark, KB7QHC

1978. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 17:17:45 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <ZaT1f.10873$vw6.8007@newsread1.news.atl.earthlink.net>
Source record: 69275

.
>
> Understood. The one that I liked to has side D-rings so you can use
> it similar to a lineman's belt. I confess to near terror when I'm
> first on the tower, which partially subsides after a while. I use
> both a belt and suspenders approach with a safety rope and carbiner
> clipped to the chest ring and the tower while ascending or descending
> and a standard belt to the waist rings for two-hand work.
>
> There is another safety issue that you can read about here:
>
> http://www.cdc.gov/elcosh/docs/d0500/d000568/d000568.html
>
> I live in a semi-rural area with a fire department station about three
> miles away, but with a small staff. I sent a copy of this paper to
> them with some remarks that I did climb on occassion and if they had
> to rescue me, they should be aware of these issues. A paramedic
> called me and told me that this was all very interesting, but they
> wouldn't get to me in time to save me anyway, so not to worry :-).

At work we have a short meeting every morning and I did a talk on this very issue about 6 months ago. I did see where some company was making some straps you could lower and stand on the straps if you did get hung up in the air. We don't do much climbing but anything over 6 feet off the floor that is not an aproved structure we have to wear a safety harness. I don't do that much but do wear one about once a month. Even going up a ladder where your feet are over 6 feet off the floor we have to wear the harness.

What I think I was really fishing for was more of a working/positioning harness and what the hams that have towers are using. Maybe a double duty one that is mainly a working harness like a linesman belt but the full harness to also act as a safety harness. The full body ones we have at work are just for safety and do not have the D rings at the sides near the hips where you can put a working belt.

1979. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 17:21:05 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <4348f9f7.286775451@news.blueyonder.co.uk>
Source record: 69176

On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
wrote:

> I have tried all the local metal suppliers and several in the Chicago
>area to get 6061-T6 aluminum tubing from in very specific sizes. I need to
^^^^^^^^

Why do you guys in the US always omit the "i" in aluminium ?

Alsao why a car tire instead of tyre?

Just asking ;-)

Peter, G3PHO

1980. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 17:33:35 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <Cq2dnXKDPfnGntXeRVn-rg@comcast.com>
Source record: 69177

Because it's ALUMINUM!!!

Tyre is an ancient biblical city. Tire is that round thingee between my
automobile and the road surface.

Peter wrote:

> On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
> wrote:
>
>
>> I have tried all the local metal suppliers and several in the Chicago
>>area to get 6061-T6 aluminum tubing from in very specific sizes. I need to
>
> ^^^^^^^^
>
> Why do you guys in the US always omit the "i" in aluminium ?
>
> Alsao why a car tire instead of tyre?
>
> Just asking ;-)
>
>
> Peter, G3PHO

1981. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 17:53:00 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <di911s$6js$1@mailhub227.itcs.purdue.edu>
Source record: 69178

Also, why do we say tube rather than valve?

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:4348f9f7.286775451@news.blueyonder.co.uk...
> On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
> wrote:
>
>> I have tried all the local metal suppliers and several in the
>> Chicago
>>area to get 6061-T6 aluminum tubing from in very specific sizes. I need
>>to
> ^^^^^^^^
>
> Why do you guys in the US always omit the "i" in aluminium ?
>
> Alsao why a car tire instead of tyre?
>
> Just asking ;-)
>
>
> Peter, G3PHO

1982. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 18:03:25 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <di91ld$6th$1@mailhub227.itcs.purdue.edu>
Source record: 69179

For a stepper motor check
http://www.herbach.com/Merchant2/merchant.mv?Screen=PROD&Store_Code=HAR&Product_Code=H2-553
and for the controller check
http://www.alliedelec.com/Search/ProductDetail.asp?SKU=316-0061

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:634l13-k0t.ln1@p400bob.personal.cox.net...
> Hi Lee
>
> Two thoughts
>
> Re stepper motors. You can often find them in old junked scanners. A nice
> cheap source. If you are feeling really cheap the interface can intially
> be a simple TTL counter cct and some pass transistors. I once used one off
> my PC parallel port for an EzAl antenna system.
>
> Also look at the possibility of using a piston capacitor and driving that
> with a threaded bar connected to your motor. This may still be a little
> fast though. You might also get away with a long lever and threaded bar
> arrangement if turning a standard rotary capacitor. Kind of limits you to
> something less than 180 degrees tho.
>
> A car windscreen wiper motor is another possibility also through a
> threaded bar. (Overkill on the torque tho)
>
> Cheers Bob Vk2YQA
>
> Lee wrote:
>> "Richard Clark" <kb7qhc@comcast.net> wrote in message
>> news:h4tek1tsolpiscp31rn844v6ijebdhaoda@4ax.com...
>>
>>>On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
>>>wrote:
>>>
>>>>Seriously, any ideas to slow the tuning rate will be most welcome .

1983. Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 18:54:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <di94lk$9tk$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69180

Automatic Level Control, ALC.

What characteristics of the load impedance are used to automatically
control the drive-level of the power amplifier?

Whatever they are must apply to CW, SSB and FM modes of operation.

Reg.

1984. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 18:56:48 UTC
From: Phil <phil@nospampse.be>
Message-ID: <QDU1f.17481$s55.830534@phobos.telenet-ops.be>
Source record: 69181

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:4pQ1f.11362$QE1.6241@newsread2.news.atl.earthlink.net...
> Planning on putting up my own tower and I need a safety harness/working
> belt
> of my own. I have used some on other projects so I have an idea of what
> I
> want, just need a few web sights/brand names to look for. I don't need a
> super heavy duty one to work in all day,every day, but one to use two or
> three times a year.
>
>
Some utility workers use gear from PETZL.
As far as I know, you can buy it in any REI.

1985. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 19:43:58 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <v4kl13-ldt.ln1@p400bob.personal.cox.net>
Source record: 69184

And being even further OT

Brings further ambiguity to the term "retired" as well. (Like my 65 yo father just had a wheel transplant)

Since I live in W5... How does one say/spell Titanium/Titanum?

I look at signs on the side of the road "Hiway" and cant for the life of me work out what that means...

Peter, its actually said in the US how it looks. This gets real confusing for me! (Along with driving on the WRONG side of the road! <grin>)

Cheers Bob W5/VK2YQA East Texas
(past the langauge test - can say "Y'all" easily)

John N9JG wrote:

>>Why do you guys in the US always omit the "i" in aluminium ?
>>
>>Alsao why a car tire instead of tyre?
>>
>>Just asking ;-)
>>
>>
>>Peter, G3PHO
>
>
>

1986. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 19:58:10 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <u09gk1prncpme8mnar1tk0c2pu7f3fdhhr@4ax.com>
Source record: 69183

On Sat, 08 Oct 2005 17:21:05 GMT, microwaves@blueyonder.co.uk (Peter)
wrote:

>On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
>wrote:
>
>> I have tried all the local metal suppliers and several in the Chicago
>>area to get 6061-T6 aluminum tubing from in very specific sizes. I need to
> ^^^^^^^^
>
> Why do you guys in the US always omit the "i" in aluminium ?
>
>Alsao why a car tire instead of tyre?
>
>Just asking ;-)
>
>
>Peter, G3PHO

Because "the English and the Americans are two peoples separated by a
common language". G. B. Shaw, I believe.

R

1987. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 20:18:05 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0r9gk11edov68vqjonkhmrg7h2c2a1kh6c@4ax.com>
Source record: 69185

On Sat, 08 Oct 2005 14:13:02 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> An extension of that thinking is in the proposition that I have seen
>> that a Bird 43 cannot give valid readings unless there is at least a
>> quarter wave of 50 ohm line on each side of itself. In this case, the
>> magnitude of significantly affected line seems to be 25%, someone
>> else's is 2%, can they both be correct?
>
>I think if you will recheck that posting you will find the assertion

Cecil, it is someone else who has on a number of occasions suggested
the quarter wave thing in email correspondence, and here in postings.

My suggestion is that the sampler inside a Bird 43 coupler section is
sufficiently far inside the 50 ohm coupler line to provide
measurements within the instrument's stated accuracy of what is
happening within the 50 ohm coupler, irrespective of whether, for
instance, a 75 ohm line is attached to the coupler on the load side.

The measurements of what is happening within the Bird 43 coupler could
then be used to model what is happening on the adjacent line, having
regard for any Zo changes, loss, length etc.

Owen
--

1988. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 20:24:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <JVV1f.1539$B14.1416@newssvr11.news.prodigy.com>
Source record: 69182

Peter wrote:
> Also why a car tire instead of tyre?

Why do your cars have bonnets even when it
isn't Easter?
--
73, Cecil http://www.qsl.net/w5dxp

1989. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 20:33:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <e2W1f.5490$Zs3.3003@newssvr25.news.prodigy.net>
Source record: 69186

Owen Duffy wrote:
> Cecil, it is someone else who has on a number of occasions suggested
> the quarter wave thing in email correspondence, and here in postings?

Yep, it's not me, it's Reg. I have defended the Bird wattmeter
design. Reg sez one needs at least 1/4WL and preferably 1/2WL
in order to accurately ascertain the "real" SWR.
--
73, Cecil http://www.qsl.net/w5dxp

1990. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 21:07:38 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.sycia0vxcdad2j@localhost.localdomain>
Source record: 69187

On Sat, 08 Oct 2005 12:58:53 -0000, Lee <lo012a4519@blueyonder.co.uk>
wrote:
Hi Lee,
Some years ago i used a 1 RPM reversible dc motor from Edmond Scientific
supply. you may want to look see if they still carry them if not an Email
to them may produce the Manufacter's name. It work very well with my home
brew 30 to 15 mtr Mag loop.

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

1991. Re: safety/working harness

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 21:15:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <63dgk11oesp15esv7h1a7dm1qkmd8iu809@4ax.com>
Source record: 69188

On Sat, 08 Oct 2005 14:08:00 GMT, "Ralph Mowery"
<rmowery28146@earthlink.net> wrote:

>Planning on putting up my own tower and I need a safety harness/working belt
>of my own. I have used some on other projects so I have an idea of what I
>want, just need a few web sights/brand names to look for. I don't need a
>super heavy duty one to work in all day,every day, but one to use two or
>three times a year.
>

Will you be working alone? Who might rescue you, and how long might it
take?

If you plan on "hanging around", plan to be comfortable. Adequate
width of leg straps in case you are sitting for a bit, clearance for
the family jewels (assuming you are male, adequate width in the back
to be comfortable leaning back on a pole strap.

In my experience, lightweight harness are strong enough for the job,
they just aren't comfortable. They are for fall arresting, instant
rescue. What is suitable for hauling a plumber out of a sewer might
not be comfortable on a tower for hours (even once a year).

For pole straps, my preference is for adjustable ones that allow you
to set a convenient position for working to minimise fatigue from
using an arm to hang on. Pole straps are not fall arrestors, if you
want a fall arrestor, you also need something like a shock absorbing
lanyard.

Owen
--

1992. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 21:22:32 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <hqdgk15g9so72gt3p1dmdouese0e6v9tmp@4ax.com>
Source record: 69189

On Sat, 08 Oct 2005 20:33:14 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Cecil, it is someone else who has on a number of occasions suggested
>> the quarter wave thing in email correspondence, and here in postings?
>
>Yep, it's not me, it's Reg. I have defended the Bird wattmeter
>design. Reg sez one needs at least 1/4WL and preferably 1/2WL
>in order to accurately ascertain the "real" SWR.

Not it was not Reg... end of the guessing game.

Having regard to the definition of VSWR (SWR), I can understand Reg's point that the direct way to measure VSWR requires sampling voltage or current over a quarter wave of line where you can find / observe the actual minimum and maximum.

Having said that, there are other measurements that one can make that allow one to reasonably predict what the VSWR would be.

Owen
--

1993. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 21:28:20 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ieegk15h4qanu1m7t8nu15hb45erg6vvc4@4ax.com>
Source record: 69190

On Sat, 08 Oct 2005 12:53:11 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:

>
>Doesn`t work with a magloop!!!.....thanks anyway.

Why is that?

Owen
--

1994. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 21:36:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <di9e5r$57l$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69191

"Owen Duffy" <owen@no.where> wrote in message
news:ieegk15h4qanu1m7t8nu15hb45erg6vvc4@4ax.com...
> On Sat, 08 Oct 2005 12:53:11 GMT, "Lee"
<lo012a4519@blueyonder.co.uk>
> wrote:
>
> >
> >Doesn`t work with a magloop!!!.....thanks anyway.
>
> Why is that?
>
> Owen

==========
Because there is only one phase - that which corresponds to the motor
driving voltage.

Reg.

1995. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 21:50:30 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <7irl13-0nt.ln1@p400bob.personal.cox.net>
Source record: 69192

Same argument I guess for having a hood like what an executioner wears!

And what about the tree sans leaves, roots and branches in the rear of
the car?

We could no doubt go on forever. I maintain though that it doesn't
matter how bad you spell, use colloquial terms or different languages.
What matters is that we allow for ambiguous meaning and then dialogue to
rectify misunderstanding..

It is a lot of fun though!

Bob

Cecil Moore wrote:
>
> Why do your cars have bonnets even when it
> isn't Easter?

1996. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 22:09:49 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <reggk15furqfujcs948mmeqs4cua6b25sm@4ax.com>
Source record: 69193

I just took the ARRL antenna modeling course and bought EZNEC+ V4.0 to provide the tools to do the examples. One chapter was devoted to limitations and common shortcomings of the software. I think the course is great and I would select the same software if I was doing it again. I wonder if you are referring to the free demo package?

On Fri, 7 Oct 2005 20:38:43 -0700, "RST Engineering" <jim@rstengineering.com> wrote:

>In my humble opinion, EZNEC is a POS for anything other than a simple "wire
>antenna". Try to do a true ground plane with bent radials? Try to do a
>simple patch? Try to do a J? Try to do ANY configuration other than a wire
>dipole and the sucker chokes.
>
>Jim
>
>
>
>"David" <groups@orbitcoms.com> wrote in message
>news:9hh1f.9103$U51.3133@news-server.bigpond.net.au...
>> Does anyone know how I can model a coaxial sleeve antenna
>> on EZNEC ?
>

1997. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 22:11:27 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <71489$4348444b$97d558d8$4747@ALLTEL.NET>
Source record: 69194

I guess it is because you folks just don't understand English. We also note
you misspell color as well.

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:4348f9f7.286775451@news.blueyonder.co.uk...
> On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
> wrote:
>
> > I have tried all the local metal suppliers and several in the
Chicago
> >area to get 6061-T6 aluminum tubing from in very specific sizes. I need
to
> ^^^^^^^^
>
> Why do you guys in the US always omit the "i" in aluminium ?
>
> Alsao why a car tire instead of tyre?
>
> Just asking ;-)
>
>
> Peter, G3PHO

1998. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 22:16:24 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <a6hgk11k51gevnc6psse3dcv7m8e8h3smn@4ax.com>
Source record: 69195

On Sat, 8 Oct 2005 21:36:59 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Owen Duffy" <owen@no.where> wrote in message
>news:ieegk15h4qanu1m7t8nu15hb45erg6vvc4@4ax.com...
>> On Sat, 08 Oct 2005 12:53:11 GMT, "Lee"
><lo012a4519@blueyonder.co.uk>
>> wrote:
>>
>> >
>> >Doesn`t work with a magloop!!!.....thanks anyway.
>>
>> Why is that?
>>
>> Owen
>
>==========================
>Because there is only one phase - that which corresponds to the motor
>driving voltage.

Call me thick, I still don't understand why you can't sample the RF V
and I and feed them to a phase detector to provide an indication of
whether to adjust the capacitor up or down to achieve resonance (V in
phase with I).

Owen
--

1999. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 22:36:43 UTC
From: jgboyles@aol.com
Message-ID: <1128811003.461916.220200@f14g2000cwb.googlegroups.com>
Source record: 69196

Owen Duffy wrote:
> On Sat, 8 Oct 2005 21:36:59 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >
> >"Owen Duffy" <owen@no.where> wrote in message
> >news:ieegk15h4qanu1m7t8nu15hb45erg6vvc4@4ax.com...
> >> On Sat, 08 Oct 2005 12:53:11 GMT, "Lee"
> ><lo012a4519@blueyonder.co.uk>
> >> wrote:
> >>
> >> >
> >> >Doesn`t work with a magloop!!!.....thanks anyway.
> >>
> >> Why is that?
> >>
> >> Owen
> >
> >==========================
> >Because there is only one phase - that which corresponds to the motor
> >driving voltage.
>
> Call me thick, I still don't understand why you can't sample the RF V
> and I and feed them to a phase detector to provide an indication of
> whether to adjust the capacitor up or down to achieve resonance (V in
> phase with I).
>
> Owen
> --
Hi Owen, Of course you can sample the RF-V and I and use it to
adjust the capacitor via the motor control circuits. The motor driving
voltage is DC, and I don't understand the inferences in this example.
Automatic antenna tuners work on this principle, and work well.
Gary N4AST

2000. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 22:39:11 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <6shgk11bict76alt5j6gr0d0trekiu2gal@4ax.com>
Source record: 69197

On Sat, 8 Oct 2005 18:54:44 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>Automatic Level Control, ALC.
>
>What characteristics of the load impedance are used to automatically
>control the drive-level of the power amplifier?

Well, as you no doubt know Reg, in the early days of application of ALC to amateur transmitters it was literally to control the drive level of the PA, and often did that is a closed loop where excess drive in a class AB1 PA was detected by occurrence of grid current, which was used to reduce gain in prior stages to limit the drive level to AB1 conditions. Such a control system is indirectly affected by the PA load.

Today, modern transceivers have further developed that idea to controlling the RF output voltage or (differently) PEP power out (ie be detecting Vout or power out and adjusting gain in prior stages to limit output. This might more loosely be called Automatic Power Control. In this case, the measurement point of the control loop is more directly affected by the load.

Many modern solid state transceivers also detect poor loading using a reflectometer calibrated for the specified load for rated output power, and reduce drive based on the measured "reflected power" in the reflectometer to protect the PA (if that needs to be done anymore for that purpose - transistors are more robust). This might be properly described as PA Protection. The measurement is directly affected by the load, and is highly responsive to load changes beyond a configured threshold.

All of these things may be included in the readers understanding of ALC. Certainly, many if not most, modern solid state transceivers perform all three of these functions, and display the control voltage as "ALC". And many current model external valve based high power PAs (Linear Amplifiers) still use the grid current detection scheme (if it is hooked back to the transceiver).

>
>Whatever they are must apply to CW, SSB and FM modes of operation.

And AM?

Owen
>----

>Reg.
>
--

2001. Re: US Tower TX-472 Base question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-08 22:48:34 UTC
From: David Thompson <thompson@mindspring.com>
Message-ID: <61Y1f.11967$q1.6140@newsread3.news.atl.earthlink.net>
Source record: 69198

Either will worK OK. The main point is to get the three base pins in the correct position and vertical. The original TX-472 came with a plywood template with a hole for each pin. Place that on the wood surrounding the hole. My last hole was close to 4 X 4 X 7.

If you don't have the 36 inch base pins with the bottom in a L (total length is 42") you have two choices. You can get a new set from US Tower (try to het HRO to order for you) or get 1" galvanized universal bolt (probably have to order from a hardware store or Mcmaster-carr) and have the bottom 6" bent at a right angle.

I have moved my tower 4 times and have had good luck with the universal bolt.

73 Dave K4JRB

"Sluggo" <luser@AOL.com> wrote in message
news:rk59k1tcgu4p2kctj5h4khr706lb5q59nt@4ax.com...
> I've got a TX-472; the problem is that at this QTH there is a
> limestone hardpan at about 5' depth. The original engineering
> drawing calls for a base of 4X4X7' deep. The latest drawing,
> available in .pdf form from their website, now calls for
> 5X5X6.5'.
>
> I'm hoping somebody here has run into a similar problem
> and can provide dimensions; UST says their engineer
> can draw it up, but for $300 or so. Needless to say, cheaper
> or preferably is always better. I can afford to send 'em
> the $ < I bought the tower used, it's not like they "owe" me>,
> but if I *have to* spend the bucks, I might be inclined to
> see if a local PE with the appropriate skills could do it,
> just in case there ever were an issue with permitting, etc.,
> although I definately don't think that will happen, no permits
> req'd in this county for amateur towers below 200' at this time.
>
> Thanks for any help you can offer.
>
> 73,
> Sluggo
>
> (the email address in the headers is bogus, email to
> jrandy AT usa DOt Com if necessary)

2002. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 00:36:19 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndkgpg3.1gc2.ben@saturn.home.ben.com>
Source record: 69199

On 2005-10-06, Allan Butler <ka0ies@hotmail.com> wrote:
> area to get 6061-T6 aluminum tubing from in very specific sizes.

Two mail order places to try: OnlineMetals.com (I've gotten great
service from them being only a few hundred miles away) and Aircraft
Spruce (never ordered metal from them, but lots of homebuilders do).

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

2003. Re: WTB - Set of Chassis Punches

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 01:22:10 UTC
From: Mike Silva <snarflemike@yahoo.com>
Message-ID: <1128820930.094817.229410@o13g2000cwo.googlegroups.com>
Source record: 69200
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment

Colin Gunn wrote:
> Looking for a good set of Chassis Punches for home-brew projects. Something
> like the older GreenLee type of punch and die set. 0.5" to 1.5" or in
> between.

Mouser has non-Greenlee punches much cheaper than the Greenlees. I've
got some and they're fine. There might be a difference in a heavy-use
setting, but probably not for typical homebrewing.

http://www.mouser.com/catalog/623/1539.pdf

73,
Mike, KK6GM

2004. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 01:31:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <di9rua$of6$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69201

> > >Doesn`t work with a magloop!!!.....thanks anyway.
> >
> > Why is that?
>
> ==========
> Because there is only one phase - that which corresponds to the
motor
> driving voltage.
> ----
> Reg.
>
==========

Automatic Antenna Tuners and Magloops.

All ATUs work on the principle of adjusting tuning components such that the load presented to the transmitter has a reflection coefficient of RC = 0+j0 ohms. When mismatched the RC has both magnitude and phase.

So there must be two L and/or C variables. That's why there are always at least two knobs on the front of a manual tuner. Or, when automatic, two electric motors. Or a set of relays which accomplish the same tasks.

In the case of a T-network the variable components are usually a pair of reversible motor-driven capacitors.

There is always a reflexion coefficient bridge which is at balance when the transmitter load is simultaneously R = 50 and jX = 0. Or impedance Magnitude = 50 and Phase = zero.

The RC bridge circuit is similar to the so-called SWR bridge except that there are TWO voltage outputs - proportional to magnitude and phase of the RC. Output voltages are amplified to drive the reversible capacitor motors or operate the set of relays. The motors go backwards and forwards and react with each other similar to what a human operator does. When Z Magnitude = 50 and Phase Angle = zero, or sufficiently near, motors stop and the green LED comes on.

Now, in the case of a magloop there is only one variable - the tuning capacitor. The other component involved with the tune-up process is FIXED. It is the diameter of the small coupling loop inside the main loop which is fixed.

The small coupling loop, in conjunction with the main loop, behaves as the single-turn primary winding of an impedance matching transformer.

The main loop, when at resonance, has a very low purely resistive impedance, the sum of the radiation and loss resistances.

The effective turns-ratio of the transformer is approximately proportional to the ratio of the areas enclosed by the two loops. It so happens that when the diameter of the coupling loop is approx 1/5th of the main loop diameter, the impedance looking into the coupling loop is 50 ohms. If a 75-ohm feedline is used then the coupling loop needs to be a little larger.

A nice property of a magloop is that an impedance match is approximately independent of frequency. When changing bands it is not necessary to change the diameter of the coupling loop even if could easily be adjusted.

It can now be seen why the conventional ATU cannot be used with magloops. What is needed is something which searches for minimum loop impedance, or zero phase angle, as the tuning capacitor is varied. It then stops.

Any ideas?

Reg, G4FGQ

2005. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 01:52:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0ptgk19booqq7eqjkgkq567klgke1cajtk@4ax.com>
Source record: 69202

On Sun, 9 Oct 2005 01:31:54 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>magloops. What is needed is something which searches for minimum loop
>impedance, or zero phase angle, as the tuning capacitor is varied. It
>then stops.
>
>Any ideas?
>----
>Reg, G4FGQ

Isn't that what I described, a control system that samples RF V and I
at the antenna end of the transmission line, and uses that to control
the direction of the capacitor drive motor to send it to the point
where the phase difference is zero?

Yes, I am aware that is only adjusting the reactance of the load
presented, but yes, I was aware the R component doesn't vary over a
very wide range over the loop's operating frequency range, and that if
X was tamed, the line losses would be acceptable.

Owen
--

2006. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 02:18:12 UTC
From: kashe@sonic.net
Message-ID: <qdvgk1t87g6n3men5jl8c4o2vvrmahs838@4ax.com>
Source record: 69203

On Sat, 8 Oct 2005 12:53:00 -0500, "John N9JG"
<john@gotwals.xremovey.com> wrote:

>Also, why do we say tube rather than valve?

For the same reason we say toob instead of tshyoob.

>
>"Peter" <microwaves@blueyonder.co.uk> wrote in message
>news:4348f9f7.286775451@news.blueyonder.co.uk...
>> On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
>> wrote:
>>
>>> I have tried all the local metal suppliers and several in the
>>> Chicago
>>>area to get 6061-T6 aluminum tubing from in very specific sizes. I need
>>>to
>> ^^^^^^^^
>>
>> Why do you guys in the US always omit the "i" in aluminium ?
>>
>> Alsao why a car tire instead of tyre?
>>
>> Just asking ;-)
>>
>>
>> Peter, G3PHO
>

2007. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 02:19:49 UTC
From: kashe@sonic.net
Message-ID: <nfvgk11r9qfobufnj3lsbl23jn01tqv8k4@4ax.com>
Source record: 69204

On Sat, 08 Oct 2005 14:43:58 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>And being even further OT
>
>Brings further ambiguity to the term "retired" as well. (Like my 65 yo
>father just had a wheel transplant)
>
>Since I live in W5... How does one say/spell Titanium/Titanum?
>
>I look at signs on the side of the road "Hiway" and cant for the life of
>me work out what that means...
>
>Peter, its actually said in the US how it looks.

Which is why we pronounce extraordinary with five or six
syllables instead of two.

> This gets real
>confusing for me! (Along with driving on the WRONG side of the road! <grin>)
>
>Cheers Bob W5/VK2YQA East Texas
>(past the langauge test - can say "Y'all" easily)
>
>John N9JG wrote:
>
>>>Why do you guys in the US always omit the "i" in aluminium ?
>>>
>>>Alsao why a car tire instead of tyre?
>>>
>>>Just asking ;-)
>>>
>>>
>>>Peter, G3PHO
>>
>>
>>

2008. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 02:21:03 UTC
From: kashe@sonic.net
Message-ID: <0jvgk1d3790v4gmlete3gag868jh3dmk9p@4ax.com>
Source record: 69205

On Sat, 08 Oct 2005 20:24:09 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Peter wrote:
>> Also why a car tire instead of tyre?
>
>Why do your cars have bonnets even when it
>isn't Easter?

Why doesn't getting knocked up in England result in babies?

2009. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 02:23:46 UTC
From: kashe@sonic.net
Message-ID: <ilvgk11hqkfajem5g3cjokvruf13fvbqio@4ax.com>
Source record: 69206

On Sat, 08 Oct 2005 16:50:30 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>Same argument I guess for having a hood like what an executioner wears!
>
>And what about the tree sans leaves, roots and branches in the rear of
>the car?
>
>We could no doubt go on forever. I maintain though that it doesn't
>matter how bad you spell, use colloquial terms or different languages.
>What matters is that we allow for ambiguous meaning

>and then dialogue to rectify misunderstanding..

I gotta say that's a pretty straightforward way to say it.
:-)

Eschew obfuscation whenever possible.

>It is a lot of fun though!
>
>Bob
>
>Cecil Moore wrote:
>>
>> Why do your cars have bonnets even when it
>> isn't Easter?

2010. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 02:24:36 UTC
From: kashe@sonic.net
Message-ID: <vpvgk19ohfcgcceq1habpuu0ju9hiic7h6@4ax.com>
Source record: 69207

On Sat, 8 Oct 2005 18:11:27 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I guess it is because you folks just don't understand English. We also note
>you misspell color as well.

Their orthography is far more glamourous. :-)

>
>"Peter" <microwaves@blueyonder.co.uk> wrote in message
>news:4348f9f7.286775451@news.blueyonder.co.uk...
>> On Wed, 05 Oct 2005 20:27:02 -0500, Allan Butler <ka0ies@hotmail.com>
>> wrote:
>>
>> > I have tried all the local metal suppliers and several in the
>Chicago
>> >area to get 6061-T6 aluminum tubing from in very specific sizes. I need
>to
>> ^^^^^^^^
>>
>> Why do you guys in the US always omit the "i" in aluminium ?
>>
>> Alsao why a car tire instead of tyre?
>>
>> Just asking ;-)
>>
>>
>> Peter, G3PHO
>

2011. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 03:39:32 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Uh02f.6446$y_1.6253@edtnps89>
Source record: 69208

>>A nominal 2.5 kHz shift, at 3.575 MHz (0.07%), is about all I can detect.
>
> Hi Frank,
>
> Is this shift constant over all axial lengths, or variable?
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

Axial extension 1.2" from antenna end -- Results as follows:

Extension Length (ft) Resonant Freq. (MHz)

0 3.5765
5 3.576
10 3.575
20 3.574
50 3.5725
100 3.5720

For a total shift of 4.5 kHz (0.125%) from zero to 100 ft

73,

Frank

2012. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 05:38:51 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <L122f.95729$RW.2178@fe2.news.blueyonder.co.uk>
Source record: 69209

"Owen Duffy" <owen@no.where> wrote in message
news:v92fk15p4e5sh59fo4mkvvi8287ko2an8d@4ax.com...
> On Sat, 08 Oct 2005 06:26:31 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
> wrote:
>
> >To continue the saga......
<snip

> Assuming it is a permag motor, reduce the motor voltage... add a
> current limited driver to limit the torque, an electronic shear pin if
> you like... except it doesn't shear.

Yes, good idea......i`ll look into that.

> I am assuming that you are trying to tune the reactance out, to
>>>>>> achieve an acceptable VSWR on the line to the ATU/transceiver<<<<

An ATU does not work too well with a magloop as the magloop has its own
tuning capacitor (ATU) built in all that happens is that the antenna and
feed are tuned as one....unless i misunderstand your comment!!!.

. Have
> you considered automating the capacitor drive. You could build a phase
> detector (between V and I at the antenna input) as a sensor to control
> the motor drive.

Yes, but that is a bit too involved when pulse width modulation will do the
job, albeit, manually.....good thought tho`......

Thanks for the input ....

Lee.........G6ZSG.....

>
> Owen
> --

2013. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 05:43:47 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <n622f.95737$RW.61734@fe2.news.blueyonder.co.uk>
Source record: 69210

"Cecil Moore" <mycall@arrl.net> wrote in message
news:acQ1f.9877$oO2.2032@newssvr27.news.prodigy.net...
> Lee wrote:
> > Seriously, any ideas to slow the tuning rate will be most welcome .
>
> What's wrong with a gear-head motor? I have some in my junk box.

Wish it was in my junkbox!!! ;-)

Lee....G6ZSG......

> --
> 73, Cecil http://www.qsl.net/w5dxp

2014. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 05:50:33 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <Jc22f.95749$RW.10821@fe2.news.blueyonder.co.uk>
Source record: 69211

"Owen Duffy" <owen@no.where> wrote in message
news:a6hgk11k51gevnc6psse3dcv7m8e8h3smn@4ax.com...
> On Sat, 8 Oct 2005 21:36:59 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >
> >"Owen Duffy" <owen@no.where> wrote in message
> >news:ieegk15h4qanu1m7t8nu15hb45erg6vvc4@4ax.com...
> >> On Sat, 08 Oct 2005 12:53:11 GMT, "Lee"
> ><lo012a4519@blueyonder.co.uk>
> >> wrote:
> >>
> >> >
> >> >Doesn`t work with a magloop!!!.....thanks anyway.
> >>
> >> Why is that?
> >>
> >> Owen
> >
> >==========================
> >Because there is only one phase - that which corresponds to the motor
> >driving voltage.
>
> Call me thick, I still don't understand why you can't sample the RF V
> and I and feed them to a phase detector to provide an indication of
> whether to adjust the capacitor up or down to achieve resonance (V in
> phase with I).
>
> Owen
> --

No doubt you can Owen, but that is a little beyond my present technical learning curve unfortunately.....but i`ll get there eventually, i`m learning more as i post!!!.

Thanks.

Lee.....G6ZSG....

2015. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 07:02:22 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <KD8KNkB+BMSDFA2I@ifwtech.co.uk>
Source record: 69212

Reg Edwards wrote:
>
>It can now be seen why the conventional ATU cannot be used with
>magloops. What is needed is something which searches for minimum loop
>impedance, or zero phase angle, as the tuning capacitor is varied. It
>then stops.
>
>Any ideas?

There was an article in RadCom some years ago describing an auto-tuning Top Band vertical, which used a simple inline phase detector and a little DC tuning motor. The phase detector is nothing complicated - it's very like a toroid-type SWR bridge rearranged components - but there was a lot of practical information about what's necessary for RF shielding and decoupling.

The whole thing should work equally well for a magloop, since the electronics don't care what kind of antenna it actually is.

The article was by Tim Forrester, G4WIM, and was reprinted in G4LQI's 'HF Antenna Collection' book... my copy of which is unfortunately in another country.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2016. Emoto Rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 08:44:22 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <4348D866.8070902@killspam.internode.on.net>
Source record: 69213

Hi all,
Have been offered an unused Emoto 1102 rotator, without controller,
for AUD200 .

Q1 Does this sound like good value?
Q2 Where would I look for a controller?

Thanks,
Alan
VK2TWB

2017. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 11:35:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <diavah$56s$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69214

> There was an article in RadCom some years ago describing an
auto-tuning
> Top Band vertical, which used a simple inline phase detector and a
> little DC tuning motor.

==========
Ian,

A magloop is an altogether different kettle of fish to a top-band vertical. For a start, the Q of a magloop is in the order of 1000. For a top-band vertical it may be about 50. For most antennas it is about 10.

What I would like to know is has anybody ever made an automatic tuner which works with a magloop. Or has manufactured one for sale?

By the way, thanks for the Teslar papers although I am unable to run the programs.

Reg.

2018. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 11:35:49 UTC
From: Bruce <xxx@yyy.zzz>
Message-ID: <Xns96EA4DD152A15xxxyyyzzz@216.77.188.18>
Source record: 69215

kashe@sonic.net wrote in
news:nfvgk11r9qfobufnj3lsbl23jn01tqv8k4@4ax.com:

> On Sat, 08 Oct 2005 14:43:58 -0500, Bob Bob <bob3bob3@cox.net> wrote:
>
>>And being even further OT
>>
>>Brings further ambiguity to the term "retired" as well. (Like my 65 yo
>>father just had a wheel transplant)
>>
>>Since I live in W5... How does one say/spell Titanium/Titanum?
>>
>>I look at signs on the side of the road "Hiway" and cant for the life
>>of me work out what that means...
>>
>>Peter, its actually said in the US how it looks.
>
> Which is why we pronounce extraordinary with five or six
> syllables instead of two.
>
>> This gets real
>>confusing for me! (Along with driving on the WRONG side of the road!
>><grin>)
>>
>>Cheers Bob W5/VK2YQA East Texas
>>(past the langauge test - can say "Y'all" easily)
>>
>>John N9JG wrote:
>>
>>>>Why do you guys in the US always omit the "i" in aluminium ?

You mean the second "i"? Probably because we spell it correctly: Aluminum.
;~)

I suppose we could also ask why you need to pronounce the first "u" hard.

2019. Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 12:01:37 UTC
From: jroske <jroske@frontiernet.net>
Message-ID: <BE72f.1188$647.369@news01.roc.ny>
Source record: 69216

Does anyone have plans for constructing a 2 meter/ 70 cm Dual band Beam? Any help would be appreciated.

Thanks in advance
Joe Roske
KD8CAP

2020. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 12:56:22 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Wf+NqkE2NRSDFAku@ifwtech.co.uk>
Source record: 69218

Reg Edwards wrote:
>
>> There was an article in RadCom some years ago describing an
>auto-tuning
>> Top Band vertical, which used a simple inline phase detector and a
>> little DC tuning motor.
>
>==========
>Ian,
>
>A magloop is an altogether different kettle of fish to a top-band
>vertical. For a start, the Q of a magloop is in the order of 1000.
>For a top-band vertical it may be about 50. For most antennas it is
>about 10.
>
Not fundamentally different - it only means the magloop tuning will be
more sensitive. The servo will still try to drive the system to
resonance at zero phase angle.

The overall gain around the servo loop will be the product of the
antenna Q, the mechanical gear ratios and the voltage gain in the
electronics. The last of these can be adjusted with a single pot. If you
have a higher antenna Q, you simply need less voltage gain.

>What I would like to know is has anybody ever made an automatic tuner
>which works with a magloop. Or has manufactured one for sale?
>
Don't know, never looked.

>By the way, thanks for the Teslar papers although I am unable to run
>the programs.

(I only downloaded the program for coupled inductors, but haven't
studied it yet. It ran OK, after having extracted all of its files into
a real directory; it won't run from inside the .zip 'directory'.)

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2021. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 12:57:42 UTC
From: Dave <noone@nowhere.com>
Message-ID: <xledncMk76dXjtTeRVn-iA@crocker.com>
Source record: 69217

my plan would be to construct a 2m beam, then construct a 70cm beam, and
just mount them near each other.

"jroske" <jroske@frontiernet.net> wrote in message
news:BE72f.1188$647.369@news01.roc.ny...
> Does anyone have plans for constructing a 2 meter/ 70 cm Dual band Beam?
> Any help would be appreciated.
>
> Thanks in advance
> Joe Roske
> KD8CAP
>

2022. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 16:17:31 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <cegik114d0mffkn4huludfgf0hf37av0na@4ax.com>
Source record: 69219

On Sat, 08 Oct 2005 06:58:43 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Sat, 08 Oct 2005 13:36:37 GMT, "Frank" <ve6cb@nospam.telus.net>
>wrote:
>
>>"David" <groups@orbitcoms.com> wrote in message
>>news:9hh1f.9103$U51.3133@news-server.bigpond.net.au...
>>> Does anyone know how I can model a coaxial sleeve antenna
>>> on EZNEC ?
>>>
>>> I know how to enter a standard Vertical 1/2 wave but not sure how
>>> to represent the coax going up through the tubing(sleeve) in the lower
>>> portion.
>>>
>>> Thanks in advance.
>>
>>Just model a vertical dipole. The presence of a coaxial cable, within the
>>lower conductor, will not effect its performance.
>
>But the presence of the coax below the antenna sure will.

Let me expand on this. If---big if---the sleeve is the correct length
and lossless, so that it acts as a quarter-wave choke, then in theory
it does decouple the coax from the radiator.

A few points however:

1. The Vp of the choke will depend on the effective dielectric
constant of the air/outer jacket combination. The choke so formed
will likely be fairly lossy as the outer jacket is probably not the
lowest loss dielectric around.

2. Since the choke Vp will be lower than an air-dielectric one, it
must be physically shortened to optimize the choking function. This
combined with the usual diameter differences between the sleeve and
the upper radiator (rod) makes the vertical dipole asymmetric, i.e.
unbalanced, when the rod length is adjusted for resonance. In effect
the feedpoint is moving up and down as the rod length is adjusted. In
practice, this is no big deal but offered for completeness.

3. You can model this antenna to some extent. Below are some
coordinates for a model I used. The wire size was #12, all lengths in
inches and the frequency was 100 MHz. I used Multinec invoking EZNEC 4
for the calculations. In Multinec I made the Z a variable and could
vary the height above ground programmatically. The sleeve is

represented by four stubs; more would perhaps more accurately
represent a cylinder, but I don't believe it's necessary. Since the
"coax" connects to ground, MiniNEC ground (avg) was used. To observe
NEC limitations, all segments are (very nearly) the same length and
adjacent segments are aligned. The sleeve length was adjusted to
minimize the current on the "coax" below the antenna (wire #4) and the
rod length adjusted for zero reactance.

```
End 1 End 2
X Y Z X Y Z Dia Segs.

Source wire
0.00 0.00 354.09 0.00 0.00 355.09 #12 1

Upper radiator (rod)
0.00 0.00 355.09 0.00 0.00 382.47 #12 29

"Coax" inside sleeve
0.00 0.00 326.84 0.00 0.00 354.09 #12 29

"Coax" below sleeve
0.00 0.00 0.00 0.00 0.00 326.84 #12 337

Top of sleeve
0.00 0.00 354.09 0.00 2.00 354.09 #12 2
0.00 0.00 354.09 0.00 -2.00 354.09 #12 2
0.00 0.00 354.09 2.00 0.00 354.09 #12 2
0.00 0.00 354.09 -2.00 0.00 354.09 #12 2

Sides of sleeve
0.00 2.00 326.84 0.00 2.00 354.09 #12 29
0.00 -2.00 326.84 0.00 -2.00 354.09 #12 29
2.00 0.00 326.84 2.00 0.00 354.09 #12 29
-2.00 0.00 326.84 -2.00 0.00 354.09 #12 29
```

4. If SWR is your criteria for "goodness", you will be in for a big
surprise. The above example places the midpoint of the antenna at 3
wavelengths above ground. The feedpoint Z is a nice 56.6 +j0 but the
elevation for maximum radiation is 71 degrees above the horizon. If
satellite work is your goal, this is your antenna.

5. Despite the "choke", the transmission line is part of the antenna.
Skeptics of the model above can remove the sleeve and put a trap at
end 2 of the coax and see similar results.

2023. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 17:13:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tmjik1p7vorjjtu8grrkqamodldj0kitae@4ax.com>
Source record: 69220

On Sun, 09 Oct 2005 03:39:32 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>Axial extension 1.2" from antenna end -- Results as follows:
>
>Extension Length (ft) Resonant Freq. (MHz)
>
>0 3.5765
>5 3.576
>10 3.575
>20 3.574
>50 3.5725
>100 3.5720
>
>For a total shift of 4.5 kHz (0.125%) from zero to 100 ft

Hi Frank,

Thanx.

Was this for a coaxial line running from the drivepoint, then parallel
to the lower leg, down? Was the parallel separation 1.2" as you
describe above?

Was this line modeled as a third wire connected at the drivepoint and
dropping as I describe?

73's
Richard Clark, KB7QHC

2024. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 17:38:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dibkj2ect1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69221

> Not fundamentally different - it only means the magloop tuning will
be
> more sensitive. The servo will still try to drive the system to
> resonance at zero phase angle.
==========

Ian, what slightly worries me is -

(1) The resistive component of antenna input impedance, as measured at the input of the small coupling loop, when the main loop is even only slightly off-resonant, is altogether different from 50 ohms but is not included in the bridge balancing process. The diameter of the coupling loop is fixed. Yet magnitude and phase adjustments react upon each other as is experienced by a human operator with two variable controls.

(2) The coupling between the two loops is very loose. We are trying to adjust the main loop exactly to resonance via a means which is very insensitive to its resonant condition. Direct voltage and current sampling connections to the main loop itself are impossible.

(3) We can imagine a situation where the impedance phase-angle is zero at the measuremnt point, and the green LEDs light up, but which does not correspond to exact resonance in the main loop. And exact resonance matters with a magloop.

(4) Because the system is trying to reduce a phase angle to zero in the presence of two unknowns, instability can result. We can imagine the system continuously hopping about trying to find the zero.

As you can see, I have difficulty in describing what I think happens circuitwise. But I shall be convinced only when somebody produces something which WORKS reliably without human intervention.

It may be possible but where is it?

Regards, Reg, G4FGQ

2025. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 17:48:56 UTC
From: Allan Butler <ka0ies@hotmail.com>
Message-ID: <1128880294_37@isp.n>
Source record: 69222

Thanks for the information on where to find aluminum for antenna projects.

The idea of scrap yards would not be a bad one except one does not know what the alloy or temper is on the aluminum. If it isn't right, the first good wind would end up making a nice bundle to go back to the scrap yard. :-(

The commercial locations that were given in the information are helpful. Even the Texas Towers site referring to a different alloy is a help. Now I can go back to the locals with a request for the different alloy and see if they have any of that in stock.

Again, thanks everyone for the pertinent information.

As for the spelling changes. I am an American. I do not speak English, I speak American. If I had put the English spelling on the tests that I took in school I would have failed. I put the American spelling on the tests and at least passed the tests. Schools don't like it when one tries to be a unique individual.

Find out who changed the spelling in the past and point your blame thrower at them.

Basically it boils down to this is the way we were taught to spell and speak.

Maybe we really don't speak English after all these years. We may speak and write a totally different language of American that is based on the English language.

If that is the case then there might be reason to believe the same thing is happening with Australia, South Africa and a few other parts of the world.

As an example of this get someone from Australia and listen to them. Even better hold a conversation with them. Then find someone from South Africa and converse with them on something in a totally different setting. After talking to both of them one on one, get them both into the same room and introduce them to each other than get them talking to each other about anything you want. You will find that the two dialects are different.

OK I know. It's Off Topic. :-) But I started the topic so I can twist it. Right?

Again folks, thanks for the information and it will be very helpful.

Bye, Cheerio, G'Day, Seeya, Talk ta All Yall Later. :-)

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2026. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 17:52:24 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835434966E877@zetnet.co.uk>
Source record: 69125

> Also, why do we say tube rather than valve?

Because a tube allows a substance through it without restriction, a
valve is a device for controlling such.
Dave

2027. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 18:03:57 UTC
From: richardharrison@webtv.net
Message-ID: <1406-43495B8D-905@storefull-3258.bay.webtv.net>
Source record: 69223

Ian White, G/GM3SEK wrote:
"An alternative possibility is that the Bird 43 does give valid readings by sampling at the point where it physically is."

Bird claims + or - 5% of Full Scale accuracy for the Model 43.

Why is there power from the reverse direction for a Bird Model 43 to indicate? There is no second generator sending power in the peverse direction. The reverse r-f comes from a reflection. The coax enforces a voltage to current ratio equal to Zo in each direction of flow. Zo is 50 ohms in the Model 43.

Reflection does a peculiar thing. It produces a 180-degree phase reversal between a wave`s voltage and current. Bird uses the fact that the current is in-phase with the voltage in one direction of travel and out-of-phase in the opposite direction of travel to distinguish between the two directions.

To distinguish, Bird takes a voltage sample and a current sample at the same point in a 50 ohm line. These two samples are scaled and calibrated to produce identical deflections of the power indicator.

Out-of-phase samples thus cancel leaving the in-phase samples to produce double the deflection either would produce alone. This deflection is carefully calibrated in watts.

Reversing the direction of the wattmeter element, reverses the sense of the direction indicated and reverses the direction in which the samples of voltage and current cancel.

The Bird has been satisfactory for about a half century.

Best regards, Richard Harrison, KB5WZI

2028. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 18:36:16 UTC
From: richardharrison@webtv.net
Message-ID: <9656-43496320-862@storefull-3254.bay.webtv.net>
Source record: 69224

Owen wrote:
"---I can understand Reg`s point that the direct way to measure VSWR requires sampling voltage or current over a quarter wave of line where you can find / observe the actual minimum and maximum."

Yes, and the direct way to measure MPH would be to measure the number of miles and divide by the number of hours to get an average value. It`s not often done that way. Maybe about as often as people find maxima and minima on a transmission line and compute their ratio.

It is more convenient and sufficiently accurate to use indirect methods for MPH and SWR.

Best regards, Richard Harrison, KB5WZI

2029. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 19:23:51 UTC
From: richardharrison@webtv.net
Message-ID: <11615-43496E47-838@storefull-3251.bay.webtv.net>
Source record: 69225

Reg, G4FGQ wrote:
"It may be possible but where is it?"

In the shortwave broadcast plant I worked in 50 years ago we had a 3.5 KW AM Raytheon "Autotune" transmitter we used to talk back to our program relay transmitting station in another country. We called it our "order-wire " transmitter. It or its twin were sometimes used for broadcasting but it was low in power for that job.

This autotune transmitter had a rotary telephone dial on its panel for programming its mode, operating drequency, etc. You could instruct it to listen to instructions, then dial in A-3 for AM, followed by the frequency you wanted it to operate on, such as 15,925, hit the go button, then stand back and watch the knobs spin as it tuned itself up completely. including putting the desired power into a dummy load. A ready lamp informed you it was good to go on the air at the push of a button. It worked like a charm.

Collins made autotune transmitters which are now military relics of WW-2. I never toyed with one of those.

Best regards, Richard Harrison, KB5WZI

2030. Re: Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 19:43:01 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <qZOdnb2jYJNL79TeRVn-qw@comcast.com>
Source record: 69126
Body handling: HTML body converted to readable text

"Paul P" wrote in
message news:v5fUe.214720$5N3.62635@bgtnsc05-news.ops.worldnet.att.net...
> Gentlemen,
>
> I am attempting to identify the tower manufacture of the tower pictured
> at:
> http://www.ppinyot.com/antenna.htm. I would like to properly design a
> base for it given the manufacturers specs plus perhaps pick up additional
> sections.
>
> The tower seems to be of a stamped steel design (not tubular) with stamped
> steel cross members. It has been well maintained by the silent key's son.
> I gather it is about 10 to 15 years old. There is an unpainted ladder
> chained to one side for storage. Please do not confuse this as part of the
> tower.
>
> Also if you happen to recognize the beam please Identify it too.
>
> Unfortunately some one discarded all the paper work not knowing it's
> value.
>
> Thanks Paul
>
> paul at ppinyot dot com
>
> KB3LZP
Paul -

This is definitely the Sterling / Rohn / Shelby "BX" tower series.
Rohn sold this specific series to the Thomas Shelby & Company -- which still
mfg this tower series. Dealers:

In the Chicago/Midwest area
Antenna Systems & Solutions, Inc.
931 Albion Avenue
Schaumburg, Illinois 60193
(877) 288-6139
(847) 584-1000
http://antennasystems.com/towers.html

http://antennasystems.com/towers.html#bxtower

In the New England area
http://www.criticaltowers.com/

http://www.criticaltowers.com/BX%20Series%20Towers/Web%20Pages/BX%20Series%20Tower%20Page.htm

http://www.criticaltowers.com/ROHN%20Industries/Media/pdfs/BX%20Towers/BX%20Catalog.PDF

w9gb

2031. Re: Hustler 3 antenna (VP-3) adjustment

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 19:46:48 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <PsSdnQ7SmJsk7tTeRVn-rw@comcast.com>
Source record: 69127

"RJ" <rajohngm@worldnet.att.net> wrote in message
news:fDx1f.387878$5N3.110919@bgtnsc05-news.ops.worldnet.att.net...
>I have a Hustler mobile mast with a VP-3 mount using a 10, 20 and 40 meter
>resonator. Anyone know about the sequence for tuning these 3 antennas? I
>have misplaced my instruction sheet.
> Tnx Bob, AA8X

Check with DX Engineering - they have almost all manuals on-line
http://www.dxengineering.com/Default.asp?DeptID=8

w9gb

2032. Re: Emoto Rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 19:56:53 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <zJGdneE6WJqL69TeRVn-hA@comcast.com>
Source record: 69128

"Alan Peake" <adpeake@killspam.internode.on.net> wrote in message
news:4348D866.8070902@killspam.internode.on.net...
> Hi all,
> Have been offered an unused Emoto 1102 rotator, without controller, for
> AUD200 .
>
> Q1 Does this sound like good value?
> Q2 Where would I look for a controller?
>
> Thanks,
> Alan
> VK2TWB
>

A Google search on "Emoto rotator" brought up a number of "comments" .. like
this web site:
http://www.vhfdx.net/rotatoreme.html

http://interlanco.com/products/ars-rotators.htm

Current Emoto models - Swedish Radio Supply web page
http://ham.srsab.se/rotator/emotator.html

EMOTO
12-6 Matsudo
MatsudoCity
Chiba: Japan:
Tel: 047-367-2916
w9gb

2033. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 20:07:51 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <TMe2f.16908$iM2.1386374@news.xtra.co.nz>
Source record: 69129
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1l053cdkmzptz$.v3sj8zl2t047$.dlg@40tude.net...
> On Thu, 6 Oct 2005 11:59:01 +1300, Ken Taylor wrote:
>
>> Thanks Jim, but I wouldn't bet on the facts getting in the way of this
>> 'project'.
>>
>> Cheers.
>>
>> Ken
>
> Why do you say that?
>
> Here's a "heads up" for you, Ken. There are over ten FedGov agencies,
> several legal teams and the rail lines that are working with diligence on
> this, and similar, projects with the full intent of attempting to pull
> this
> off.
>
> While you sit on the sidelines and nay-say.
>
> If I had a dime for cheap comments like yours, I could fund this project
> out of petty cash. So goes the nature of those who do and those who
> comment
> about the doers.
> --
> Drop the alphabet for email

It may be a fine project which will produce the goods, but let's look at the way you've brought it here:
- you wanted help to get up a truck-mounted transmitted to over-ride all AM/FM communications in an area. You wanted to drive the truck at up to 70mph through a disaster/emergency area, for no adequately explained reason (the RF is going for a mile or two outside the area, so why drive the truck?). You got told why it's impractical as described.
- you suddenly changed it to a loco mounted project. You struck gold on this one as there are people here who clearly have industry experience. You're not poo-poo'ing their skepticism, but certainly not fazed (may not be a bad thing....). Why not pour the funds into controlling all these uncontrolled level crossings instead of producing a 'box' to go on every loco that may drive through the US?
- you are trying to get commercial advice in a Ham group - is this the right venue?? I'd have thought not, though it's certainly cheap.

- having ten agencies etc etc on your side may get the project through, but is it the right solution to whichever problem it's attacking?
- 'nay-sayers' are a pain-in-the-arse, agreed - no-one likes them! - but sometimes you need to hear the other side.

Cheers.

Ken

2034. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 20:11:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dibtgtpna1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69130

"Owen Duffy" wrote various ways and means of automatically
controlling the power output of transmitters. Thanks very much.

Presumably control is needed to limit the power dissipated in the
output transistors which involves a time delay. And, which is a
different thing, to place limits on the instantaneous
collector/emitter voltage.

In my Icom 735 transceiver the first control requirement appears to be
met by by placing a limit on the DC collector current or power input.
The second requirement appears to be met by feeding back a
gain-control voltage proportional to the magnitude of the reflection
coefficient of the load impedance. I may not be entirely correct.

Reg.

2035. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 20:43:51 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <kemdnfS4ttKFHNTeRVn-ig@comcast.com>
Source record: 69131

"Allan Butler" <ka0ies@hotmail.com> wrote in message
news:1128562179_21@isp.n...
> Hello Everyone:
>
> I have tried all the local metal suppliers and several in the
> Chicago
> area to get 6061-T6 aluminum tubing from in very specific sizes. I need
> to
> get two pieces of 1.00 inch OD with a wall thickness of 0.058 inch that
> are
> twelve feet long. I also need to get four pieces of 7/8 inch OD by 0.049
> inch wall that are twelve feet long.
>
> Nobody that I spoke with stocks these items. Some of the big name
> suppliers were down right nasty about me wanting this small quantity of
> pieces.
>
> Where would one go to get these pieces that I need to get for some
> antenna projects that I want to build soon? And not pay an arm and a leg
> for the privilege of owning this rare and unobtainable material.
>
> Allan Butler
> ka0ies

Allan -

Contact Charles Penniger, KC9DAO of Penniger Radio in St. Charles, IL
(western suburb of Chicago). He has a web site: http://www.penninger.com

He deals with aluminum tubing on a regular basis with his full-time job --
and stocks long lengths. An e-mail or telephone conversation will likely
save you time.
http://www.penninger.com/prod05.htm

Greg, w9gb

2036. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 20:51:55 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <5lSdnZjfLc9hH9TeRVn-pw@comcast.com>
Source record: 69132

"jerry" <tubing_guy@tubing.com> wrote in message
news:4344AC76.546F3735@tubing.com...
> hi allan,
>
> http://www.mcmaster.com great online catalog,
> they got everything even the kitchen sinks !
> they even have local pickup if there is one in your area
> to save on the truck fees.
>
> how about ebay, lots of tubing online,
> I got some nice 6063 (higher corrosion resistance)
> .5 od from a guy in california.
>
> Problem will be the ship fees, 12' is by truck.
>
> Got to be a local place that has it.
>
> 73 tube guy
>
Allan -

The McMaster-Carr warehouse for the Midwest & Chicago area is along TriState Tollway (I-294) between Grand Avenue and North Avenue ... they have a pick-up window for locals !! ... and are less than 1 mile from my QTH.

That and Charles Penniger, KC9DAO -- who sells aluminum tubing up to 24 feet in length (Chicago area) -- start with Chuck -- and save yourself grief and large shipping or freight charges.

Greg
w9gb

2037. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 20:52:26 UTC
From: LRod <duckecho@gmail.com>
Message-ID: <7n0jk1tsj1kbpoig32hu24pmoibecha4hb@4ax.com>
Source record: 69133
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 10 Oct 2005 09:07:51 +1300, "Ken Taylor" <ken123@xtra.co.nz>
wrote:

>It may be a fine project which will produce the goods, but let's look at the
>way you've brought it here:
>- you wanted help to get up a truck-mounted transmitted to over-ride all
>AM/FM communications in an area. You wanted to drive the truck at up to
>70mph through a disaster/emergency area, for no adequately explained reason
>(the RF is going for a mile or two outside the area, so why drive the
>truck?). You got told why it's impractical as described.
>- you suddenly changed it to a loco mounted project. You struck gold on this
>one as there are people here who clearly have industry experience. You're
>not poo-poo'ing their skepticism, but certainly not fazed (may not be a bad
>thing....). Why not pour the funds into controlling all these uncontrolled
>level crossings instead of producing a 'box' to go on every loco that may
>drive through the US?

It struck me from the very beginning as a solution looking for a
problem.

--
LRod

Master Woodbutcher and seasoned termite

Shamelessly whoring my website since 1999

http://www.woodbutcher.net

Proud participant of rec.woodworking since February, 1997

2038. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 21:09:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o10jk19dgli473a21b098qotl1940t4rdf@4ax.com>
Source record: 69134

On Sun, 9 Oct 2005 20:11:09 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>"Owen Duffy" wrote various ways and means of automatically
>controlling the power output of transmitters. Thanks very much.
>
>Presumably control is needed to limit the power dissipated in the
>output transistors which involves a time delay. And, which is a
>different thing, to place limits on the instantaneous
>collector/emitter voltage.

Another method of PA protection is thermal protection of the PA,
sometimes integrated with cooling fan control. In my experience, where
drive control is deployed, it reduces drive to prevent the heatsink
exceeding about 60 deg C. I have found such protection commonly on
commercial FM land mobile equipment (two way radios), some amateur FM
mobiles, and less frequently in HF equipment.

>
>In my Icom 735 transceiver the first control requirement appears to be
>met by by placing a limit on the DC collector current or power input.

You are right, some radios do incorporate over-current protection of
the PA. It is in some Icom radios (IC706IIG, IC7400 / IC746PRO), and I
suspect many other Icoms will share this feature.

Whilst probably intended for PA protection, it has the great benefit
that the radio is less likely to draw excessive current while
adjusting an ATU, and tripping over-current protection in a power
supply. A radio that needs 16A in operation, but 25 during tune is a
pain in the butt on a nominal 20A power supply with over current
protection that kicks in above 22A!

>The second requirement appears to be met by feeding back a
>gain-control voltage proportional to the magnitude of the reflection
>coefficient of the load impedance. I may not be entirely correct.

As I described, and for example, from the IC706IIG service manual:
"The reflected wave signal appears and increases on the
antenna connector when the antenna is mismatched. The
HF/50 MHz reflected signal level is detected at D10 (FILTER
board), and is amplified at the APC amplifier (IC1091c) and
applied to the ALC circuit as the reference voltage."

You are probably (almost certainly) correct about the 735 having a
"reflected power" limiting circuit, but Icom's view seems to be that

if you want to read their description of how the radio works (if you had an interest in that sort of thing), you need to purchase the service manual.

Where is all this leading Reg?

Owen
--

2039. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-09 22:23:21 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <QlVsUOOZhZSDFAmp@ifwtech.co.uk>
Source record: 69135

Reg Edwards wrote:
>> Not fundamentally different - it only means the magloop tuning will
>be
>> more sensitive. The servo will still try to drive the system to
>> resonance at zero phase angle.
>==========
>
>Ian, what slightly worries me is -
>
>(1) The resistive component of antenna input impedance, as measured at
>the input of the small coupling loop, when the main loop is even only
>slightly off-resonant, is altogether different from 50 ohms but is not
>included in the bridge balancing process. The diameter of the coupling
>loop is fixed. Yet magnitude and phase adjustments react upon each
>other as is experienced by a human operator with two variable
>controls.
>
>(2) The coupling between the two loops is very loose. We are trying to
>adjust the main loop exactly to resonance via a means which is very
>insensitive to its resonant condition. Direct voltage and current
>sampling connections to the main loop itself are impossible.
>
>(3) We can imagine a situation where the impedance phase-angle is zero
>at the measuremnt point, and the green LEDs light up, but which does
>not correspond to exact resonance in the main loop. And exact
>resonance matters with a magloop.
>
>(4) Because the system is trying to reduce a phase angle to zero in
>the presence of two unknowns, instability can result. We can imagine
>the system continuously hopping about trying to find the zero.
>
>As you can see, I have difficulty in describing what I think happens
>circuitwise. But I shall be convinced only when somebody produces
>something which WORKS reliably without human intervention.
>
>It may be possible but where is it?

I see your point... but what do you actually tune for, when you do it
manually?

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2040. Re: Help Identify Tower manufacturer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 00:19:33 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <juydnUHAF707LtTenZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 69136

"gb" <onw9mapsgb@no.arrl.spam.net> wrote in message

> Paul -
>
> This is definitely the Sterling / Rohn / Shelby "BX" tower series.
> Rohn sold this specific series to the Thomas Shelby & Company -- which
> still mfg this tower series.

> Midwest / Chicago area dealer:
> Antenna Systems & Solutions, Inc.
> 931 Albion Avenue
> Schaumburg, Illinois 60193
> (877) 288-6139
> (847) 584-1000
> http://antennasystems.com/towers.html
>
> http://antennasystems.com/towers.html#bxtower

Correction, Rohn purchased this tower design from "Spalding" -- and not
Sterling as listed in my original post !

Also, this same tower is used for the HyGain AV-18HT or "HyTower" 53 foot
vertical antenna -- which MFJ now sells for $849 !!
http://www.hy-gain.com/products.php?prodid=AV-18HT

w9gb

2041. Re: US Tower TX-472 Base question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 03:16:38 UTC
From: Sluggo <luser@AOL.com>
Message-ID: <p8qjk1hhfl6sf0lu6b6u7bkns5b2o4cqhc@4ax.com>
Source record: 69137

Thanks for the reply, David.
I've pretty much decided to rent a tiny "track hoe" and dig
down to the hardpan, to make sure it's not just some rocks
I can remove... assuming the hardpan is, in fact, there, I'm
going to just go with whatever depth I can get, and add about
20% to the total amount of concrete the mfr stated....and also
do "overkill" on the rebar. I have both the original "T" base
the tower was mounted on, as well as a brand-new one the
fellow-ham I got it from gave me...concrete here in FL is rapidly
approaching the cost of solid gold, "IF" you can get it,
so, no room for mistakes...
He also gave me the bolts that went with the new base, abt 3'
long.... I *think* the bolts are UST items, everything else is.

Thanks for your reply; this isn't the only place I've asked the
question... and it's like pulling teeth to get a response worthy
of consideration...

Best 73,
de Sluggo

On Sat, 08 Oct 2005 22:48:34 GMT, "David Thompson"
<thompson@mindspring.com> wrote:

>Either will worK OK. The main point is to get the three base pins in the
>correct position and vertical. The original TX-472 came with a plywood
>template with a hole for each pin. Place that on the wood surrounding the
>hole. My last hole was close to 4 X 4 X 7.
>
>If you don't have the 36 inch base pins with the bottom in a L (total length
>is 42") you have two choices. You can get a new set from US Tower
>(try to het HRO to order for you) or get 1" galvanized universal bolt
>(probably have to order from a hardware store or Mcmaster-carr) and have the
>bottom 6" bent at a right angle.
>
>I have moved my tower 4 times and have had good luck with the universal
>bolt.
>
>73 Dave K4JRB
>
>"Sluggo" <luser@AOL.com> wrote in message
>news:rk59k1tcgu4p2kctj5h4khr706lb5q59nt@4ax.com...
>> I've got a TX-472; the problem is that at this QTH there is a
>> limestone hardpan at about 5' depth. The original engineering
>> drawing calls for a base of 4X4X7' deep. The latest drawing,

>> available in .pdf form from their website, now calls for
>> 5X5X6.5'.
>>
>> I'm hoping somebody here has run into a similar problem
>> and can provide dimensions; UST says their engineer
>> can draw it up, but for $300 or so. Needless to say, cheaper
>> or preferably is always better. I can afford to send 'em
>> the $ < I bought the tower used, it's not like they "owe" me>,
>> but if I *have to* spend the bucks, I might be inclined to
>> see if a local PE with the appropriate skills could do it,
>> just in case there ever were an issue with permitting, etc.,
>> although I definately don't think that will happen, no permits
>> req'd in this county for amateur towers below 200' at this time.
>>
>> Thanks for any help you can offer.
>>
>> 73,
>> Sluggo
>>
>> (the email address in the headers is bogus, email to
>> jrandy AT usa DOt Com if necessary)
>

2042. Re: BEWARE OF Linda West (925) 876-7441 of CHIPMAN UNITED VAN LINES/Caton Mayflower CONCORD,CA she likes to put peoples names on moving

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 03:29:49 UTC
From: Sluggo <luser@AOL.com>
Message-ID: <7uqjk1hjb5aftehc04u138ij38tiehl3so@4ax.com>
Source record: 69138
Cross-posted to: rec.radio.amateur.antenna,alt.religion.angels

On 7 Oct 2005 21:57:58 -0700, "solo" <dkjmcintyre@home.nl> wrote:

>Isn`t this a litttle bit off topic?
>O no, wait, I know. Ofcourse you`re talking about moving angels!

Well, off-topic or not, I recently plooked a hot little blond number,
about 25, fair complected, in the back of a CHAPMAN UNITED
VAN LINES vehicle, and, I can only concur with the original poster.
We made an *awful* mess of an ottoman, some sort of large mirror,
and, although it was very, very dark back there, it's always a good
idea to wash dishes and eating utensils that have been transported
from Point A to Point B by such companies.
So, I cannot reccomend using CHAPMAN UNTIED VAN LINES for
the transport of items.

2043. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 04:04:30 UTC
From: nm5k@wt.net
Message-ID: <1128917070.916999.240800@g14g2000cwa.googlegroups.com>
Source record: 69139
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

It struck me from the very beginning as a solution looking for a
problem..

Hummmm...I haven't read any of this thread, and after seeing
the initial page, decided it wasn't worth my time..."Not related
to any certain post". I was just curious , as the thread title started
to remind me of a old "Jethro Tull" song... Resume...
MK

2044. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 06:10:28 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <oBn2f.31046$tD4.28961@tornado.ohiordc.rr.com>
Source record: 69140
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Is this guy done, now?

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1lihotn31d6fk.a79lqxn15md6$.dlg@40tude.net...
> DHS has proposed a change in scenario. They want an on locomotive alerting
> system that could be commandeered and driven at, near or about a disaster
> site. Everything else stays more or less the same, overbroadcasting on
> local AM/FM, power off the locomotive, selective or full frequency
> broadcasting, train (s) to be in motion at all times. 20-30 second
> messages
> that would also combine a message to be aware that a locomotive (at speed)
> will be flying by the at grade crossings.
>
> Comments?
> --
> Drop the alphabet for email

2045. Re: Connecting several bandpass filters.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 06:27:58 UTC
From: SH <sholby@hotmail.com>
Message-ID: <434a09ee$1@news.wineasy.se>
Source record: 69141

Hi All

Just some more details. The signal is to be distributed to 4 of my neighbours and therefore the switch is out of the question unforunatly.

The more i read about seperating almost each channels as Ian & Crazy George describes the more I like the idea. This will give me the posibility to adjust the level of each. And since I do want to do some DIY then building BP filters which not interact should be a task to overcome.
The cray part of this project is that the only reason for that I want 21,39 and 47 on antenna two (TRIAX unix 100 vertikal pointing at 200 degrees) is because i am a TVDx'er and those three ones are extreme DTV fringe ones from 200 km away. Actually only the ch 38 on Ant. 2 is the only one to be used by my wife and neighbours.
The antennas are place 100 meter away on the heighest point omf my property.
So actually all this is because I want to be able to "snif" whether the conditions are good or not everywhere in the house and that is also the reason that i am interested in to get as much of the UHF band covered with ant 1 which is the WIZI EZ 74 (One of the biggest UHF ever produced). Its pointed toward 70 degrees (I live 8 km south south east of Roskilde in Denmark) and in that direction I got the baltic contries.
The ant 1 is to be used for the following regular programmes 22/25 DTV schweden 23 local copenhagen 33, 43, 50 Analog Schweden
The rest of the channels in the downlead from this is ant 3 31/53 Danish analogue TV (DR1 TV2), 51 soon to come Danish DTV.
ant 4 ch 45 analogue Danish TV vertical (DR2)
So its just one of those really crazy DIY projects to see if it is it at all possible.:-))

At the moment it all works with the 21, 39, 47 left out from ant 2 through a one channel amplifier. (I have put up an experimental unix 100 on 6 meters of waterpipe on the roof terrasse (very low WAF wife acceptance factor) to try out the 21,39,47) until I get this up and running.

Best regards

Svend Holby

"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message news:QYeKv0CTD4RDFwdS@g3ohx.demon.co.uk...
> Re-reading Svend's mail, he wants Channels 22 to 37, 40 to 44, and 49 to
> 64 (Antenna 1). He then needs to add Channel 21 and 38 + 39 (Antenna 2).
> This should not be too difficult.
>
> Obviously, the filters will not totally reject channels which are close

> (for example, the 22 to 37 filter will not reject 21 very well). There
> will be a certain amount of unwanted noise outside the passband of each
> filter, and ghosting (due to pick-up on the 'wrong' antenna) may not be
> totally eliminated. It may be necessary to fit one or two notch filters.
>
> I would first fit a level-raising amplifier to the feed from each antenna.
> There is nothing like having lots of signal level to play with!
>
> At the output of Amplifier 1, use a 4*-way CATV splitter to obtain four
> feeds. The loss will be about 8dB (for a splitter which uses ferrite
> transformers). Each output will be isolated from the others (typically by
> about 25dB).
>
> [*Note: 2, 4 and 8-way splitters are 'standard building blocks' in the
> world of cable TV. You can get 3-way and 6-way, but they are not easy to
> find).
>
> To three of the feeds, fit bandpass filter for Channels 22 to 37, 40 to 44
> and 49 to 64. He can use the fourth output for monitoring.
>
> At the output of Amplifier 2, use another 4*-way CATV splitter to obtain 4
> feeds. To two of the feeds, fit bandpass filter for Channels 21 and 38+39.
>
> He now has six separate TV feeds. If he wants, he can fit in-line variable
> attenuators to each to equalise the signal levels.
>
> The six TV feeds are then connected together using an 8*-way splitter (as
> a combiner) or two 4-ways then a 2-way. There should be little interaction
> between them. The loss will be about 11dB.
>
> Assuming a loss of 2dB for each filter, the total loss of this system will
> be 8 + 11 + 2 = 21dB.
>
> All that remains it to design (or obtain). 'normal' filters for each block
> of channels. There is a company in the UK which has a good range of
> equipment for MATV and CATV:
> http://www.taylorbros.co.uk
> I don't see anything there which is exactly what Svend wants, but here
> probably other companies in Europe which have can supply similar
> equipment.
>
> Ian.
>
>
>
>
>
>
>
> In message <4347476c_3@news1.prserv.net>, Crazy George

> <munschNO@SPAMattglobal.net> writes
>>Well, you know, it depends......
>>
>>Optimally, one would like to have separate, independent antennas for each
>>channel, the way we constructed the first CATV head ends up in the hills
>>of
>>Pennsylvania in the 1950s. But, then Scientific Atlanta and others
>>designed LPD antennas which covered multiple channels coming from one
>>general direction, and since tower space and loading was always a concern
>>(don't forget multiple runs of low loss coax enter that equation also),
>>multiple antennas gave way to fewer antennas and lots of signal processing
>>down at the base of the tower. Some sites had racks and racks of gear.
>>
>>If the requirement is to provide signals to only one TV, a switch could be
>>a
>>good choice. On the other hand, if the design is for a whole house, or
>>apartment complex or commercial building signal distribution system, then
>>it
>>gets progressively more complicated. Since Svend didn't specify, one had
>>to
>>conclude that he had already considered and rejected the easy solutions.
>>--
>>Crazy George
>>
>>"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message
>>news:74jA3LZkXuRDFw7g@g3ohx.demon.co.uk...
>>> With all those channels mixed together, it would be best to simply use
>>> an A/B switch to switch between the two antennas.
>>> Ian.
>>>
>>>
>>> In message <43436b5d$1@news.wineasy.se>, SH <sholby@hotmail.com> writes
>>> >Thanks for both you answers its nice to now i stil remember some theory
>>> >eventhough its 10 years since i read some UHF theory (Ended up being a
>>> >programmer :-))))
>>> >
>>> >I think ill go for the notch version. I have made a lot of them and
>>> >they
>>are
>>> >easy to build but I've noticed that it seams that 3 notches (adjusted
>>> >to
>>3
>>> >diff freq.) is some kind of limit. When i put in no. 4 it seams that
>>> >the
>>> >overall loss increases.
>>> >Do I remember correctly when i state that 2 nothes on the same freq.
>>should
>>> >be a 1/4 wave apart???
>>> >
>>> >Best regards

>>> >
>>> >Svend Holby
>>> >
>>> >"Crazy George" <munschNO@SPAMattglobal.net> wrote in message
>>> >news:4342fba9_3@news1.prserv.net...
>>> >> Ben Jackson has some good points. You need not worry about audio,
>>> >> usually,
>>> >> as the FM capture takes care of the weaker signal. So, filtering the
>>> >> video
>>> >> carrier and near sidebands is all that is necessary.
>>> >>
>>> >> However, in answer to your question, the way you connect bandpass
>>filters
>>> >> in
>>> >> parallel is with power dividers, amplifiers, and power dividers
>>> >> again,
>>> >> backwards as summers. Otherwise, controlling the out of band input
>>> >> and
>>> >> output impedances of several in parallel is a monumental, but
>>> >> solvable
>>> >> task.
>>> >> Spice, anyone?
>>> >>
>>> >> --
>>> >> Crazy George
>>> >> "SH" <sholby@hotmail.com> wrote in message
>>> >> news:43422d26$1@news.wineasy.se...
>>> >>> Hi
>>> >>>
>>> >>> I have come up with one of those crazy DYI ideas which I would like
>>to
>>> >> try
>>> >>> to implement but one thing still remains.
>>> >>>
>>> >>> I have two UHF (TV) arial pointing in different directions and would
>>like
>>> >> to
>>> >>> connect them together through BP filters to minimize noise.
>>> >>> BP = Bandpass
>>> >>> Antenna 1: UHF channel (Europe) BP 1 ch 22-37, BP 2 ch40 -44, BP 3
>>> >>> ch
>>> >>> 49 -
>>> >>> 68/ or high pass
>>> >>> Antenna 2: UHF channel (Europe) BP 1 ch 21 / or low pass, BP 2
>>ch38 -39,
>>> >> BP
>>> >>> 3 ch 47
>>> >>>
>>> >>> I have found formulas to design each section of BF but how to you
>>connect

>>> >>> several BP filters in parallel??? I have investigated some old TV
>>filter
>>> >> and
>>> >>> they have a coil (12 WDG) in and out of each BP section but is that
>>the
>>> >> way
>>> >>> to do it and how does it influence the design of each BP.
>>> >>>
>>> >>> The only approach that I can find is to split the signal into three
>>> >>> (-
>>> >> 6dB)
>>> >>> then feed each into a BP filter and the Combine them again (-6dB).
>>This
>>> >> will
>>> >>> result in each BP section seeing 75 Ohms as they shouland they would
>>not
>>> >>> interfere with eachother. Ofcouse i would need a 20 dB amplifier to
>>fix
>>> >> the
>>> >>> loss.
>>> >>>
>>> >>> But is there a better way.
>>> >>>
>>> >>> Best regards
>>> >>>
>>> >>> Svend Holby
>>> >>>
>>> >>>
>>> >>
>>> >>
>>> >
>>> >
>>>
>>> --
>>>
>>
>>
>
> --
>

2046. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 06:35:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <did22r$61c$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69142

Ian White wrote
> I see your point... but what do you actually tune for, when you do >
it manually?
>
==========
Frequency is selected by the receiver, not the transmitter.

The transmitter is OFF when I do it manually and I tune for maximum
noise in the receiver. How do YOU do it? <smiley>

If I can't do it when the transmitter is ON then neither can an
automatic ATU. It would have to be more clever than I am.

Regards, Reg, G4FGQ

2047. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 07:04:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <did3p5rpq1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69143

"Owen Duffy" wrote
> Where is all this leading Reg?
=====================================

Owen, you sound very slightly suspicious. <smiley>

But it improves my and other readers education on a previously
undiscussed topic of conversation.

Thanks, Reg, G4FGQ.

2048. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 07:18:35 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <S$xMSfFLXhSDFAmM@ifwtech.co.uk>
Source record: 69144

Reg Edwards wrote:
>
>Ian White wrote
>> I see your point... but what do you actually tune for, when you do >
>it manually?
>>
>==========
>Frequency is selected by the receiver, not the transmitter.
>
>The transmitter is OFF when I do it manually and I tune for maximum
>noise in the receiver. How do YOU do it? <smiley>
>
I freely admit, I've never touched the things... just trying to be
helpful :-)

But what do you think "maximum noise" means? You hope it's going to mean
maximum field strength when you come to transmit, but what does that
actually mean in terms of loop tuning conditions?

>If I can't do it when the transmitter is ON then neither can an
>automatic ATU. It would have to be more clever than I am.

If we're not clever enough to build an automatic ATU for a magloop, it's
a sign that there's something about magloops we still need to know...
not abandon the idea.

First of all, somebody needs to build a phase detector for an existing
manually tuned loop, and see what results it gives.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2049. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 07:43:34 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <186kk1lgbofa6o2ki7e9jv3bgjb4d8110g@4ax.com>
Source record: 69145

On Mon, 10 Oct 2005 08:18:35 +0100, Ian White G/GM3SEK
<gm3sek@ifwtech.co.uk> wrote:

>Reg Edwards wrote:
>>
>>Ian White wrote
>>> I see your point... but what do you actually tune for, when you do >
>>it manually?
>>>
>>==========
>>Frequency is selected by the receiver, not the transmitter.
>>
>>The transmitter is OFF when I do it manually and I tune for maximum
>>noise in the receiver. How do YOU do it? <smiley>
>>
>I freely admit, I've never touched the things... just trying to be
>helpful :-)
>
>But what do you think "maximum noise" means? You hope it's going to mean
>maximum field strength when you come to transmit, but what does that
>actually mean in terms of loop tuning conditions?
>
>
>>If I can't do it when the transmitter is ON then neither can an
>>automatic ATU. It would have to be more clever than I am.
>
>If we're not clever enough to build an automatic ATU for a magloop, it's
>a sign that there's something about magloops we still need to know...
>not abandon the idea.
>
>First of all, somebody needs to build a phase detector for an existing
>manually tuned loop, and see what results it gives.

Ian, Reg, I don't for a moment think automation of a loop tuner is
trivial, but I don't think it is impractical with modern processor
control techniques. For a practical solution, it will probably need
some king of position sense from which to derive end limits and
velocity for implementing a second order control loop.

It is probably a lot like autotuning a PA tank (and that was done in
closed loop linear systems decades ago), except that the loop Q is
probably much higher and the tuning range wider. The same problems
will be encountered in finding the true resonance where phase changes
very quickly from a large positive value to a large negative value or
vice versa depending on the direction of tuning.

It would be interesting Reg, just the install an SWR meter (this is not a windup!) at your magloop, shut your eyes and tune it up on rx as you describe, then see whether is is close to minimum SWR)which will probably be at or very near zero reactance) on tx.

To some extent, the tuner algorithms will be simpler than for a two to n variable tuner (many autotuners vary more than two components, they may switch in an autotransformer, or change from L to PI or PI-L configuration).

I am more interested to hear from someone who says it can't be done, what they tried that didn't work.

A remote autotuner could be just the thing that makes a magloop a very attractive, small, frequency versatile antenna (well, for those who don't have the antenna in the shack or very long arms).

Owen
--

2050. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 09:53:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <diddmp$p6i$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69146

"Ian White G/GM3SEK" wrote in
> If we're not clever enough to build an automatic ATU for a magloop, it's
> a sign that there's something about magloops we still need to know...
==========

We are able to analyse and predict the behaviour of magloops to any required degree of precision.

What is missing is how both a magnitude-searching and phase-searching circuit of an automatic tuner works when denied access to the magnitude-searching component.

When manually adjusting a tuner it is obvious to the operator that the controls INTERACT with each other. Both variable controls equally affect both magnitude and phase. That much can be gleaned from inspection of the circuitry.

For example, in the case of a T-tuner with two variable capacitors, the operator cannot concentrate on one variable exclusively to the other. He continually has to swap from one to the other and obtain a balance by progressively closer approximations whilst keeping his eyes on the co-called SWR meter.

An automatic tuner manages to complete the operation by varying both controls simultaneously. But it is obvious from observation of what the drive motors are doing, and the time taken to do it, that the circuit is behaving just like a human operator. Occasionally the motors even have to reverse and try again.

When denied access to either one of the two variable controls, the automatic tuner doesn't know what to do next and would become lost.

If the desired impedance magnitude is known to be 50 ohms and is somehow inserted in the circuit, this is of little assistance to how the circuit behaves because when the main loop is off-resonance the actual resistive component is miles away from 50 ohms yet the automatic tuner is obliged to do something about it. But without the ability to vary the diameter of the coupling loop, as I say, it is lost.

So we need something different from and more sophisticated than the conventional automatic tuner with its relatively simple magnitude and phase-searching abilities.

I'll believe it when I see one which works.

Regarding your question about manual tuning up for maximum noise (or signal) in the receiver, at the frequency set by the receiver, reciprocity rules and fortunately, with modern transceivers, one can bawl into the microphone and answer a CQ call with confidence that it can be heard.

But Ian, you already know all this. I have the time and I just like gabbing about it.

I trust you are comfortably settling down in your new country. I have spent happy years, in bits, working in Scotland. It is a most civilised place.

Yours, Reg, G4FGQ

2051. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 10:08:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <didei9$qc4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69147

"Owen Duffy" wrote
> Yes, I am aware that is only adjusting the reactance of the load
> presented, but yes, I was aware the R component doesn't vary over a
> very wide range over the loop's operating frequency range, and that
if
> X was tamed, the line losses would be acceptable.
>
==========

Line loss on transmit is relatively unimportant. What matters is
accuracy of tuning up an extremely high Q loop on both transmit and
receive.

Reg, G4FGQ

2052. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 11:33:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <didjis$n0k$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69148

"Owen Duffy" wrote
> I am more interested to hear from someone who says it can't be done,
> what they tried that didn't work.
>
==========
Owen,

I cannot but agree with everything you say and am inclined to say it can't be done automatically with anywhere near to the required degree of accuracy.

The obvious automatic way of tuning the loop is to use a remotely controlled signal generator at the other end of the back yard and tune up for maximum signal on receive. This should not be very difficult to arrange but it is too uneconomic to be practical.

So I'll stick to manual tuning.

But I hasten to add that I hope this conversation does not deter anybody from experimenting with magloops because magloops are, by far, the most power-efficient of all the small, space-saving, neighbor-friendly antennas.

Try one on the 160, 80 and 40 meter bands. At higher frequencies there's usually enough space to erect a dipole or an inverted-L which will perform at least as well. (Ian, you could perhaps do a useful article on the subject.)

For the basic design, download program MAGLOOP4 from the website below.
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2053. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 12:57:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <mzt2f.259$q%.231@newssvr12.news.prodigy.com>
Source record: 69149

Reg Edwards wrote:
> If I can't do it when the transmitter is ON then neither can an
> automatic ATU. It would have to be more clever than I am.

It would be relatively easy to use the SWR meter driving
current from an MFJ-259 to control the ATU motor.
--
73, Cecil http://www.qsl.net/w5dxp

2054. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 13:06:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4Ht2f.260$q%.5@newssvr12.news.prodigy.com>
Source record: 69150

Reg Edwards wrote:
> So we need something different from and more sophisticated than the
> conventional automatic tuner with its relatively simple magnitude and
> phase-searching abilities.

If you remembered what frequency the mag loop had been tuned
to last time, would that alleviate the need to know phase?
The reason I ask is that is how I auto-tune my screwdriver
without knowing phase.
--
73, Cecil http://www.qsl.net/w5dxp

2055. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 13:17:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <didpkd$qv0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69151

"Cecil Moore" <mycall@arrl.net> wrote in message
news:4Ht2f.260$q%.5@newssvr12.news.prodigy.com...
> Reg Edwards wrote:
> > So we need something different from and more sophisticated than
the
> > conventional automatic tuner with its relatively simple magnitude
and
> > phase-searching abilities.
>
> If you remembered what frequency the mag loop had been tuned
> to last time, would that alleviate the need to know phase?
> The reason I ask is that is how I auto-tune my screwdriver
> without knowing phase.
> --
> 73, Cecil http://www.qsl.net/w5dxp
==========

Cecil, while you are tuning your screwdriver, which is not a magloop,
phase and magnitude does not enter your head. Forget all about it!

Reg

2056. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 13:18:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <didpn3$989$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69152

"Cecil Moore" <mycall@arrl.net> wrote in message
news:mzt2f.259$q%.231@newssvr12.news.prodigy.com...
> Reg Edwards wrote:
> > If I can't do it when the transmitter is ON then neither can an
> > automatic ATU. It would have to be more clever than I am.
>
> It would be relatively easy to use the SWR meter driving
> current from an MFJ-259 to control the ATU motor.
> --
> 73, Cecil http://www.qsl.net/w5dxp

==========

Cecil, I keep telling you, there's no such thing as an SWR meter.

Reg.

2057. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 13:36:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <r7u2f.262$q%.144@newssvr12.news.prodigy.com>
Source record: 69153

Reg Edwards wrote:
> Cecil, while you are tuning your screwdriver, which is not a magloop,
> phase and magnitude does not enter your head. Forget all about it!

Watching the SWR meter while tuning my screwdriver while driving
had always bothered me. I first installed an audio VCO so I
wouldn't have to watch the SWR meter. Next I installed a flip-flop
so I only had to get the screwdriver started in the right direction
and didn't have to hold down the toggle switch. When the SWR starts
dropping, an LM-339 shuts off power to the screwdriver motor. And
it's all done while my IC-706 is in reduced power tune mode.
--
73, Cecil http://www.qsl.net/w5dxp

2058. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 13:37:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <68u2f.263$q%.90@newssvr12.news.prodigy.com>
Source record: 69154

Reg Edwards wrote:
> Cecil, I keep telling you, there's no such thing as an SWR meter.

The folks over on sci.physics.electromag disagree.
--
73, Cecil http://www.qsl.net/w5dxp

2059. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 13:37:25 UTC
From: richardharrison@webtv.net
Message-ID: <9656-434A6E95-968@storefull-3254.bay.webtv.net>
Source record: 69155

Reg, G4FGQ wrote:
"The transmitter is OFF when I do it manually and I tune for maximum noise in the receiver."

As Reg said, reciprocity rules.

You can also satisfactotily tune an antenna to resonance by adjusting it for maximum output. When I was in Tierra del Fuego we had Land Rovers and boats equipped rith RCA single-sideband HF radios.

The Rovers had whip antennas atop fiberglass boxes containing loading coils and motor-driven tap-changing switches. The coil base-loaded the whip.

I routinely tuned the whips by switching my multimeter to the a-c range (it used germanium rectifiers) and tuning for a maximum meter indication. I chose meter-probe positions for a convenient scale indication.

The above was accomplished with the transmitter ON and fed with a test tone driving it to put out some power. The whip was mostly non-directional so it made little difference where the r-f sensing antenna was placed. The tuning procedure worked fine even with the multimeter in the near-zone laying on the bonnet (hood) of the Rover.

The capacitor tuning a high-Q loop could also be tuned for maximum output because that is your goal. The sampling antenna could be located almost anywhere but probably not in a null of the loop.

Best regards, Richard Harrison, KB5WZI

2060. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 14:20:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <tMu2f.170$dO2.42@newssvr29.news.prodigy.net>
Source record: 69156

Richard Harrison wrote:
> The above was accomplished with the transmitter ON and fed with a test
> tone driving it to put out some power.

I don't know much about small loops. Modern transceivers,
like my IC-706, have such good protection circuitry that
it can be tuned into any load at full power. Is there
anything in the design of a small loop that would prevent
full power plus foldback tuning?
--
73, Cecil, http://www.qsl.net/w5dxp

2061. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 14:39:16 UTC
From: richardharrison@webtv.net
Message-ID: <7498-434A7D14-790@storefull-3252.bay.webtv.net>
Source record: 69159

Reg, G4FGQ wrote:
"Cecil, I keep telling you, there`s no such thing as an SWR meter."

Terman says in his 1955 edition, page 99:
"The standing-wave ratio S is one means of expressing the magnitude of the reflection coefficient;---."

This, Terman illustrates can go either way via formulas. Rho is convertible to SWR and SWR is convertible to Rho.

Why should an indication proportional to SWR not be so calibrated and called ?

Best regards, Richard Harrison, KB5WZI

2062. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 14:42:19 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <1lzzmg4kuzre6.rg64haffcgku$.dlg@40tude.net>
Source record: 69157
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On 9 Oct 2005 21:04:30 -0700, nm5k@wt.net wrote:

> It struck me from the very beginning as a solution looking for a
> problem..
>
> Hummmm...I haven't read any of this thread, and after seeing
> the initial page, decided it wasn't worth my time..."Not related
> to any certain post". I was just curious , as the thread title started
> to remind me of a old "Jethro Tull" song... Resume...
> MK

"Locomotive Breath"

In the shuffling madness
Of the locomotive breath,
Runs the all-time loser,
Headlong to his death.
He feels the piston scraping --
Steam breaking on his brow --
Old Charlie stole the handle and
The train won't stop going --
No way to slow down.
He sees his children jumping off
At the stations -- one by one.
His woman and his best friend --
In bed and having fun.
He's crawling down the corridor
On his hands and knees --
Old Charlie stole the handle and
The train won't stop going --
No way to slow down.
He hears the silence howling --
Catches angels as they fall.
And the all-time winner
Has got him by the balls.
He picks up Gideon's Bible --
Open at page one --
God stole the handle and
The train won't stop going --
No way to slow down.

--
Drop the alphabet for email

2063. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 14:43:33 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <4nk9zi9ok6bm$.g865gdrr8vai$.dlg@40tude.net>
Source record: 69158
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 10 Oct 2005 06:10:28 GMT, Wayne P. Muckleroy wrote:

> Is this guy done, now?

We were until you reopened the thread, Wayne.

duh.
--
Drop the alphabet for email

2064. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 14:45:05 UTC
From: w <"trollfuckingcentral(tm)"@trollcentral.org>
Message-ID: <1rlo1e3qnf6hq$.o8jelz9eei76.dlg@40tude.net>
Source record: 69160
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Sun, 09 Oct 2005 21:52:26 +0100, LRod wrote:

> It struck me from the very beginning as a solution looking for a
> problem.

The you failed to read the thread.

2065. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 15:02:44 UTC
From: richardharrison@webtv.net
Message-ID: <7499-434A8294-228@storefull-3252.bay.webtv.net>
Source record: 69161

Cecil, W5DXP wrote:
"Is there anything in the design of a small loop that would prevent full power plus foldback tuning"

Maybe off-resonance operation. The small loop is always inductive but its reactance is high and its resistance is low, so it has a high-Q. It has almost uniform current thoughout, so this produces nulls on its axis.

Best regards, Richard Harrison, KB5WZI

2066. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 15:17:29 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <dCv2f.174$dO2.70@newssvr29.news.prodigy.net>
Source record: 69162

Reg Edwards wrote:
> So we need something different from and more sophisticated than the
> conventional automatic tuner with its relatively simple magnitude and
> phase-searching abilities.
>
> I'll believe it when I see one which works.

Reg, I just opened up my 2006 MFJ catalog. They have
an "Automatic LoopTuner(TM)", the 300w MFJ-937. It's
designed for approximately 1/10WL loops.
--
73, Cecil, http://www.qsl.net/w5dxp

2067. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 16:05:16 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <0jw2f.9312$y_1.3496@edtnps89>
Source record: 69163

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:tmjik1p7vorjjtu8grrkqamodldj0kitae@4ax.com...
> On Sun, 09 Oct 2005 03:39:32 GMT, "Frank" <ve6cb@nospam.telus.net>
> wrote:
>
>>Axial extension 1.2" from antenna end -- Results as follows:
>>
>>Extension Length (ft) Resonant Freq. (MHz)
>>
>>0 3.5765
>>5 3.576
>>10 3.575
>>20 3.574
>>50 3.5725
>>100 3.5720
>>
>>For a total shift of 4.5 kHz (0.125%) from zero to 100 ft
>
> Hi Frank,
>
> Thanx.
>
> Was this for a coaxial line running from the drivepoint, then parallel
> to the lower leg, down? Was the parallel separation 1.2" as you
> describe above?
>
> Was this line modeled as a third wire connected at the drivepoint and
> dropping as I describe?
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

My model is only valid providing the coax has no current on the exterior of the shield. All I did was extend one leg of the dipole by the length specified, but not actually connected to it; with a 1.2" gap. As per the following sketch.

----------o---------- ----------
dipole extension

Do you think it makes sense? It is the only way I could think of modeling it with NEC.

73,

Frank

2068. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 16:20:52 UTC
From: johan aeq <pe1aeq@amsat.og>
Message-ID: <92d71$434a966e$52ad139c$31683@news.versatel.nl>
Source record: 69164

There ia a small program thatmakes it very simple to build a lpda antenne
that works on two harmonic bands.
I think it was LPDA.exe and was made by a german Ham.

"jroske" <jroske@frontiernet.net> schreef in bericht
news:BE72f.1188$647.369@news01.roc.ny...
> Does anyone have plans for constructing a 2 meter/ 70 cm Dual band Beam?
Any
> help would be appreciated.
>
> Thanks in advance
> Joe Roske
> KD8CAP
>
>

2069. FA: New Old Stock - Hustler brand CB antenna - a few to choose from!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 16:34:40 UTC
From: jimbradley@gmail.com
Message-ID: <1128962080.819233.154650@g43g2000cwa.googlegroups.com>
Source record: 69165

http://electronics.search.ebay.com/_Consumer-Electronics_W0QQcatrefZC12QQfsooZ1QQfsopZ1QQsacatZ293QQsassZjimQ2dofQ2dware

2070. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 16:54:51 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <237lk1l33332qgt7t35lag80icpdidfca5@4ax.com>
Source record: 69166

On Sun, 09 Oct 2005 09:17:31 -0700, I wrote a fairly detailed
analysis:

[snip]

Apparently, I wasted my time.

2071. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 17:24:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vn8lk1pvu8tmv2eodpjqr4uqsmrdbd8qas@4ax.com>
Source record: 69167

On Mon, 10 Oct 2005 09:54:51 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Sun, 09 Oct 2005 09:17:31 -0700, I wrote a fairly detailed
>analysis:
>
>[snip]
>
>Apparently, I wasted my time.

Hi Wes,

I wouldn't say so. I took the time to enter your data into EZNEC and
confirm your results. I haven't closely examined the implications of
construction variations for the skirt wires, much less the "choking"
action that is notably missing.

73's
Richard Clark, KB7QHC

2072. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 17:24:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8g8lk15u9hecqslo7n3udnr6jjpkbjnl7p@4ax.com>
Source record: 69168

On Mon, 10 Oct 2005 16:05:16 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>My model is only valid providing the coax has no current on the exterior of
>the shield. All I did was extend one leg of the dipole by the length
>specified, but not actually connected to it; with a 1.2" gap. As per the
>following sketch.
>
>----------o---------- ----------
> dipole extension
>
>Do you think it makes sense? It is the only way I could think of modeling
>it with NEC.

Hi Frank,

No. The extension lies in the null of the dipole. As such, it would
be no mystery that it has so little influence.

To model it correctly requires some form of cage or skirt of wires as
Wes has provided in this thread.

73's
Richard Clark, KB7QHC

2073. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 17:27:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g29lk1ha0jvqnjpju5dcgfj4ke1etqc4a7@4ax.com>
Source record: 69169
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 10 Oct 2005 10:45:05 -0400, w
<"trollfuckingcentral(tm)"@trollcentral.org> wrote:

>On Sun, 09 Oct 2005 21:52:26 +0100, LRod wrote:
>
>> It struck me from the very beginning as a solution looking for a
>> problem.
>
>The you failed to read the thread.
No, Ari, that was not a requisite to come to that understanding.

2074. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 17:31:39 UTC
From: LRod <duckecho@gmail.com>
Message-ID: <6b9lk1dcpk51ub52o7hkekarga4ikrhbh6@4ax.com>
Source record: 69170
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 10 Oct 2005 10:45:05 -0400, w
<"trollfuckingcentral(tm)"@trollcentral.org> wrote:

>On Sun, 09 Oct 2005 21:52:26 +0100, LRod wrote:
>
>> It struck me from the very beginning as a solution looking for a
>> problem.
>
>The you failed to read the thread.

I read every post.

--
LRod

Master Woodbutcher and seasoned termite

Shamelessly whoring my website since 1999

http://www.woodbutcher.net

Proud participant of rec.woodworking since February, 1997

2075. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 18:18:01 UTC
From: Dave <noone@nowhere.com>
Message-ID: <A4idnQmxrZvBLdfeRVn-sA@crocker.com>
Source record: 69172

yes, this is a common problem. try checking out the arrl's radio direction finding book for more specific techniques. but a couple simple ones are
1. a small loop, use the sharp nulls off the ends of the loop instead of the big wide lobes.
2. a doppler system that electronically rotates antennas to give direction. there is a very simple one on my web site at:
http://www.k1ttt.net/technote/doppler.html
3. a pair of phased verticals set up to give a cardioid pattern, again use the sharp null not the fat lobe.

"Jim" <jbasi@cfw.com> wrote in message
news:e2bd0$434aabe2$d80c3c80$26657@NAXS.COM...
> This isn't strictly a Ham question, but I hope you all can help me anyway.
>
> I am using small transmitters in the 166-167 mhz range in some Box Turtle
> research I am doing. My RDF antenna is a 3 element Yagi designed via
> Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
> degrees beamwidth in the H pattern.
>
> This works well for initial locating......usually starting 1500 to 2000
> feet
> from my transmitter, but the closer I get, the more inaccurate it becomes.
>
> What kind of antenna design could I switch to when I get to close range
> that
> would have a narrower beam so I could pinpint my target? It would be nice
> to have something smaller than my 35" x 21" yagi for close in work, but
> the
> beam width is the primary concern.
>
> Yagicad doesn't let me design solely on beam width (at least I haven't
> figured out how) so is there another way to go on this??
>
> Thanks
> Jim
>
>

2076. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 18:27:21 UTC
From: Larry Benko <xxw0qe@comcast.net>
Message-ID: <0PWdncgoqtIVL9feRVn-gw@comcast.com>
Source record: 69173

Jim wrote:
> This isn't strictly a Ham question, but I hope you all can help me anyway.
>
> I am using small transmitters in the 166-167 mhz range in some Box Turtle
> research I am doing. My RDF antenna is a 3 element Yagi designed via
> Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
> degrees beamwidth in the H pattern.
>
> This works well for initial locating......usually starting 1500 to 2000 feet
> from my transmitter, but the closer I get, the more inaccurate it becomes.
>
> What kind of antenna design could I switch to when I get to close range that
> would have a narrower beam so I could pinpint my target? It would be nice
> to have something smaller than my 35" x 21" yagi for close in work, but the
> beam width is the primary concern.
>
> Yagicad doesn't let me design solely on beam width (at least I haven't
> figured out how) so is there another way to go on this??
>
> Thanks
> Jim
>
>

Jim,

Assuming your transmitters are NOT super well filtered I would build a
yagi for 3 times the frequency (498-501MHz) and listen on that frequency
when very close. Very few transmitters will be so clean as to not be
able to hear the 3rd harmonic. I DF and do running ARDF very often and
if you don't mind the small second antenna and you have a receiver that
can tune to the 3rd harmonic this will get you both the needed
attenuation for being close and the ability to pinpoint the source.

73,
Larry, W0QE

2077. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 18:51:50 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <judlk1psq9vm45ektnsjfis9ovu1fgav0r@4ax.com>
Source record: 69174

On Tue, 11 Oct 2005 01:03:34 -0400, "Jim" <jbasi@cfw.com> wrote:

>This isn't strictly a Ham question, but I hope you all can help me anyway.
>
>I am using small transmitters in the 166-167 mhz range in some Box Turtle
>research I am doing. My RDF antenna is a 3 element Yagi designed via
>Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
>degrees beamwidth in the H pattern.
>
>This works well for initial locating......usually starting 1500 to 2000 feet
>from my transmitter, but the closer I get, the more inaccurate it becomes.
>
>What kind of antenna design could I switch to when I get to close range that
>would have a narrower beam so I could pinpint my target? It would be nice
>to have something smaller than my 35" x 21" yagi for close in work, but the
>beam width is the primary concern.
>
>Yagicad doesn't let me design solely on beam width (at least I haven't
>figured out how) so is there another way to go on this??
>
>Thanks
>Jim
>

You already got two good suggestions from others. Here's a third.
Build a MOXON square, less gain than yagi but if built right the MOXON
has a very distinct readward null, you exploit the null. Another
small advantage is it's smaller than a 2 element yagi for the same
band.

Allison

2078. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 18:58:07 UTC
From: Duncan <duncan.stives@gmail.com>
Message-ID: <1128970687.485157.40010@g44g2000cwa.googlegroups.com>
Source record: 69175

Jim wrote:
> This isn't strictly a Ham question, but I hope you all can help me anyway.
>
> I am using small transmitters in the 166-167 mhz range in some Box Turtle
> research I am doing. My RDF antenna is a 3 element Yagi designed via
> Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
> degrees beamwidth in the H pattern.
>
> This works well for initial locating......usually starting 1500 to 2000 feet
> from my transmitter, but the closer I get, the more inaccurate it becomes.
>
> What kind of antenna design could I switch to when I get to close range that
> would have a narrower beam so I could pinpint my target? It would be nice
> to have something smaller than my 35" x 21" yagi for close in work, but the
> beam width is the primary concern.
>
> Yagicad doesn't let me design solely on beam width (at least I haven't
> figured out how) so is there another way to go on this??
>
> Thanks
> Jim

The doppler shift method mentioned by Dave has worked very well for me
but it only gives you a chioce between 2 directions. If you know the
kind of area your turtles are likely to be then it should work
otherwise you can use iyt in conjunction with you yagi antenna to get a
accurate direction. The doppler shift method (unlike directional
antennas) is not affected by signal strength. This is because it works
by using two small antennas and determining which one the radio wave
hits first (this type of device usually generates a tone which
dissapears when the wave hits both antennas at the same time). This
tells you with a good degree of accuracy that the transmitter is in
front of or behind you.

2079. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 19:11:30 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <20rq13-5m2.ln1@p400bob.personal.cox.net>
Source record: 69077

Hi Jim

Hams will quite often get involved in hidden transmitter hunts during field day games. You might be surprised at the expertise out there.

Some notes/thoughts for you;

- I'd be surprised that the yagi would exhibit 48dB F/B and if it did it would only be for a very narrow frequency range. This however isnt a huge problem. Even 20dB is more than ample for hidden TX finding.

- Ensure that you arent cross polarized with the turtle antenna. It is possible for polarisation to change as the signal reflects off objects so reflected signal maybe stronger than the direct. This only gets to be a huge issue at cross polarised (say) plus or minus 10 degrees or so so just make sure you are in the ballpark.

- Something that you modeled probably didnt allow for a ground so close and your body so near. What I am trying to get at is you may not be getting anything like the performance you expected because of these local detuning effects.

- I'd suspect that the problem might actually be more in the receiver than antenna. As the signal gets stronger/closer the radio might be running out of signal reporting range,. ie everything is just over a certain value so it is treated as being at maximum. It is quite common under these conditions to switch in an amount of attenuation to reduce the signal to a more reportable figure. This usaully goes in the antenna feedline.

- In addition to the above your receiver may not be very well shielded such that signal actually bypasses the antenna/coax path and thus gives you less peaks and nulls to go off. You can check this by placing a dummy load (usually 50 ohms) in the antenna cable socket and checking for the nearby signal.

- The human body is excellent for using as a directional attenuator. If you had a simple omni antenna attached and only a few inches in front of your body you'll get maximum attenuation (lowest signal) when you are facing away from the target turtle.

- If you antenna design isnt symetrical and there is an imbalance of currents in the coax you may get to receive a signal directly to the coax as well as the antenna. A few ferrite beads at the antenna feedpoint around the coax, coiling the coax in a 4" dia 5 turn loop or using some other form of balun (coaxial or otherwise might help. Obviously you can test this theory by playing with the coax orientation

as well as the antennas.

- Considering also using the null or side of the antenna. ie turn it at right angles to the turtle and where you get a very sharp loss of signal thats the direction (or 180 degrees out) the TX is.

- Trying to narrow the beamwidth probably isnt a useful exercise with the size limitations you have. You stated 90 degrees (3db down) beamwidth. With (say) a 12 element yagi, 20ft long the beamwidth is around 38 degrees. Better but probably not useful for you.

Hope this is useful to you.

Oh and a question. Is the box turtle the one one that has the hinged flap in front? I found one on a busy road and I picked it up and moved it along in what I hope was the direction it was going. Had never seen one before! (New to the US)

Cheers Bob W5/VK2YQA

Jim wrote:
> This isn't strictly a Ham question, but I hope you all can help me anyway.

2080. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 19:39:22 UTC
From: Dave <noone@nowhere.com>
Message-ID: <vuidnQp82IrxXtfeRVn-3Q@crocker.com>
Source record: 69076

actually... for some reason i didn't put it on that web page, but you can have a unidirectional null with that simple system. to do that you make the antennas 1/4 wavelength apart and make one feed line 1/4 wave longer than the other. in this way you get a cardioid pattern since the only direction that won't have a phase shift is when the signal gets to the antenna with the longer feedline first and the other one exactly 1/4 cycle later. just be sure to take the coax velocity factor into account.

"Duncan" <duncan.stives@gmail.com> wrote in message
news:1128970687.485157.40010@g44g2000cwa.googlegroups.com...
>
> Jim wrote:
>> This isn't strictly a Ham question, but I hope you all can help me
>> anyway.
>>
>> I am using small transmitters in the 166-167 mhz range in some Box Turtle
>> research I am doing. My RDF antenna is a 3 element Yagi designed via
>> Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
>> degrees beamwidth in the H pattern.
>>
>> This works well for initial locating......usually starting 1500 to 2000
>> feet
>> from my transmitter, but the closer I get, the more inaccurate it
>> becomes.
>>
>> What kind of antenna design could I switch to when I get to close range
>> that
>> would have a narrower beam so I could pinpint my target? It would be
>> nice
>> to have something smaller than my 35" x 21" yagi for close in work, but
>> the
>> beam width is the primary concern.
>>
>> Yagicad doesn't let me design solely on beam width (at least I haven't
>> figured out how) so is there another way to go on this??
>>
>> Thanks
>> Jim
>
>
> The doppler shift method mentioned by Dave has worked very well for me
> but it only gives you a chioce between 2 directions. If you know the
> kind of area your turtles are likely to be then it should work
> otherwise you can use iyt in conjunction with you yagi antenna to get a

> accurate direction. The doppler shift method (unlike directional
> antennas) is not affected by signal strength. This is because it works
> by using two small antennas and determining which one the radio wave
> hits first (this type of device usually generates a tone which
> dissapears when the wave hits both antennas at the same time). This
> tells you with a good degree of accuracy that the transmitter is in
> front of or behind you.
>

2081. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 20:14:24 UTC
From: Ari Silversteinn <abcarisilverstein@yahoo.comxyz>
Message-ID: <cfuuuoh3i17s$.rcrtgw4eu5l9.dlg@40tude.net>
Source record: 69078
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 10 Oct 2005 10:27:28 -0700, Richard Clark wrote:

> On Mon, 10 Oct 2005 10:45:05 -0400, w
> <"trollfuckingcentral(tm)"@trollcentral.org> wrote:
>
>>On Sun, 09 Oct 2005 21:52:26 +0100, LRod wrote:
>>
>>> It struck me from the very beginning as a solution looking for a
>>> problem.
>>
>>The you failed to read the thread.
> No, Ari, that was not a requisite to come to that understanding.

Uh, this wasn't Ari, check your headers.
--
Drop the alphabet for email

2082. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 20:20:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lvilk1pir017shmdi8mm2q6u240kt7h5k0@4ax.com>
Source record: 69079
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

On Mon, 10 Oct 2005 16:14:24 -0400, Ari Silversteinn
<abcarisilverstein@yahoo.comxyz> wrote:

>Uh, this wasn't Ari, check your headers.
Uh, and neither are you (as if headers proved anything)

Hi Ossama,

Hard to validate yourself when you approach us an anonymous poster
(anyone can use anything as a signature). Problem there is I can pin
any name to you, and you couldn't prove it otherwise - can you? ;-)

still lookin' for ya'
Uncle Sam

2083. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:11:28 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <434cd876.474806555@news.blueyonder.co.uk>
Source record: 69080

On Sat, 08 Oct 2005 13:33:35 -0400, Amos Keag <A.K01@comcast.net>
wrote:

>Because it's ALUMINUM!!!
>
>Tyre is an ancient biblical city. Tire is that round thingee between my
>automobile and the road surface.
>

Tire is what I do very rapidly when listen to a politician spout forth
on the TV ... :-)

2084. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:11:32 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <8OA2f.149$7h7.42@newssvr21.news.prodigy.com>
Source record: 69081

Allan Butler wrote:
> Thanks for the information on where to find aluminum for antenna projects.
>
> The idea of scrap yards would not be a bad one except one does not know what
> the alloy or temper is on the aluminum. If it isn't right, the first good
> wind would end up making a nice bundle to go back to the scrap yard. :-(
>
> The commercial locations that were given in the information are helpful.
> Even the Texas Towers site referring to a different alloy is a help. Now
> I can go back to the locals with a request for the different alloy and see
> if they have any of that in stock.
>
> Again, thanks everyone for the pertinent information.

It might not be so simple as that-- as, depending on lengths, and
element diameters, and how they are attached to each other, can get much
greif, even with 6061-T! Had a Six Meter yagi, useing this tubeing thru
the boom (3/16 inch -diameter), and could drop it from height and not
damage it- But, in the wind, the elements would chatter, causing metal
fatigue, causing element failure at the boom entry hole. Don't know if
there is a program that will calculate mechanical stress from items
such as mentioned, but it is something to reckon with. Its kind of
distressing when you have 4 (or 8!) of these up, on a moonbounce
array, and have to find a way to replace those elements! as info-
Jim NN7K

2085. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:13:03 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <434dd8f5.474932747@news.blueyonder.co.uk>
Source record: 69082

On Sat, 08 Oct 2005 14:43:58 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>And being even further OT
>
>Brings further ambiguity to the term "retired" as well. (Like my 65 yo
>father just had a wheel transplant)

LOL!!

2086. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:14:00 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <434ed963.475043346@news.blueyonder.co.uk>
Source record: 69083

On Sun, 09 Oct 2005 11:35:49 GMT, Bruce <xxx@yyy.zzz> wrote:

>
>You mean the second "i"? Probably because we spell it correctly: Aluminum.
>;~)
>
>I suppose we could also ask why you need to pronounce the first "u" hard.

Do we? I hadn't noticed ;-)

2087. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:15:40 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <434fd99b.475099587@news.blueyonder.co.uk>
Source record: 69084

On Sat, 08 Oct 2005 20:24:09 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Peter wrote:
>> Also why a car tire instead of tyre?
>
>Why do your cars have bonnets even when it
>isn't Easter?

You also give your car a trunk while we give it a boot!

2088. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:16:49 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <4350d9f1.475184919@news.blueyonder.co.uk>
Source record: 69085

On Sat, 08 Oct 2005 16:50:30 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>We could no doubt go on forever. I maintain though that it doesn't
>matter how bad you spell, use colloquial terms or different languages.
>What matters is that we allow for ambiguous meaning and then dialogue to
>rectify misunderstanding..

That's what our rulers (President and Prime Minister) count on...
confusion among the people!

2089. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:18:06 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <4351da2c.475244565@news.blueyonder.co.uk>
Source record: 69086

On Sun, 09 Oct 2005 02:21:03 GMT, kashe@sonic.net wrote:

>
>
> Why doesn't getting knocked up in England result in babies?

Wow... that's cutting things close...

I could add the word ass and fanny to the conversation we're having
but I'd better not !

Peter, G3PHO

2090. Re: Messaging, AM/FM *On Locomotive* dont hold your breath!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:29:42 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <b3B2f.17107$iM2.1401018@news.xtra.co.nz>
Source record: 69087
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Ari Silversteinn" <abcarisilverstein@yahoo.comxyz> wrote in message
news:1lzzmg4kuzre6.rg64haffcgku$.dlg@40tude.net...
> On 9 Oct 2005 21:04:30 -0700, nm5k@wt.net wrote:
>
>> It struck me from the very beginning as a solution looking for a
>> problem..
>>
>> Hummmm...I haven't read any of this thread, and after seeing
>> the initial page, decided it wasn't worth my time..."Not related
>> to any certain post". I was just curious , as the thread title started
>> to remind me of a old "Jethro Tull" song... Resume...
>> MK
>
> "Locomotive Breath"
>
> In the shuffling madness
> Of the locomotive breath,
> Runs the all-time loser,
> Headlong to his death.
> He feels the piston scraping --
> Steam breaking on his brow --
> Old Charlie stole the handle and
> The train won't stop going --
> No way to slow down.
> He sees his children jumping off
> At the stations -- one by one.
> His woman and his best friend --
> In bed and having fun.
> He's crawling down the corridor
> On his hands and knees --
> Old Charlie stole the handle and
> The train won't stop going --
> No way to slow down.
> He hears the silence howling --
> Catches angels as they fall.
> And the all-time winner
> Has got him by the balls.
> He picks up Gideon's Bible --
> Open at page one --
> God stole the handle and
> The train won't stop going --
> No way to slow down.
>

> --
I don't like the project, but I like the messenger. :-)

Cheers.

Ken

2091. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:33:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <07B2f.242$dO2.52@newssvr29.news.prodigy.net>
Source record: 69088

Peter wrote:
> I could add the word ass and fanny to the conversation we're having
> but I'd better not !

In England, a friend of mine was introduced thusly:
"Hey Everyone! Here's a friend from America! He's Randy!"
Randy wondered why everyone was laughing.
--
73, Cecil, http://www.qsl.net/w5dxp

2092. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:43:23 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <tdnlk15dno5eg11torhrltdepg78c62o78@4ax.com>
Source record: 69089

On Mon, 10 Oct 2005 11:33:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

...
>At higher frequencies
>there's usually enough space to erect a dipole or an inverted-L which
>will perform at least as well. (Ian, you could perhaps do a useful
>article on the subject.)
>
...

I wrote an article on the Inverted L with a remote autotuner (designed for end-fed wires) some time ago. The configuration, it is frequency agile, very convenient when integrated with transeiver auto-tune controls, and works a treat. The most significant downside (like most Marconi, Windom, Long Wire etc configs) is from an EMR safety point of view, it has a radiator within reach of people standing on the ground. The article is at http://www.vk1od.net/InvertedL/InvertedL.htm .

With the experience of using such a configuration, I reckon that a magloop with an remote autotuner designed specifically for a magloop would be a great option for people with very little space, better than Echolink!

Reg, if you have an expression for the loop inductance and resistance as a function of frequency, and we could make the assumption that the coupling coil is a broadband ideal transformer with a fixed z ratio or otherwise characterise the transformation as a function of frequency, I could do a software simulation of an autotuner... be an interesting project.

BTW, the tuner values in the article above are found through simulation of an automated L tuner, but the 3 variable binary searching algorithm used for performance would not work for a loop.

Owen
--

2093. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:47:59 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <FsOdnXw8-_1XfNfeRVn-1g@comcast.com>
Source record: 69090

Cecil Moore wrote:

> Peter wrote:
>
>> I could add the word ass and fanny to the conversation we're having
>> but I'd better not !
>
>
> In England, a friend of mine was introduced thusly:
> "Hey Everyone! Here's a friend from America! He's Randy!"
> Randy wondered why everyone was laughing.

I'm ignorant [technical usage] please tell me why!

2094. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:52:06 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o6olk1dmgleo6nmof6kok5h7aa0lmf3ig7@4ax.com>
Source record: 69091

On Mon, 10 Oct 2005 14:20:09 GMT, Cecil Moore <mycall@arrl.net> wrote:

...
>I don't know much about small loops. Modern transceivers,
>like my IC-706, have such good protection circuitry that
>it can be tuned into any load at full power. Is there
...

I know it is common practice to tune screwdrivers for max power out from IC706s (tuning for "maximum smoke"), but is that good for the tuner?

Perhaps that is why Icom incorporated low power tuning of its system tuners. The AH4 actually presents a very limited range of Z to the radio, it effectively introduces a small attenuator at the tuner input when tuning. So the radio is limited to around 10W, the Z excursions are limited, and the tuner relays operate at quite low power. I wonder what they know that we don't?

Perhaps it is why Kenwood drops carrier before each relay operation in autotuning the TS2000 internal tuner. (Some of their earlier models have a reputation for tuner relay failure.)

It may be that tuning screwdrivers under full power isn't detrimental (I just don't know), but it is probably not safe to generalise.

Owen
--

2095. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 21:58:48 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <FsB2f.11687$ke.980@bignews3.bellsouth.net>
Source record: 69092

"jroske" <jroske@frontiernet.net> wrote in message
news:BE72f.1188$647.369@news01.roc.ny...
> Does anyone have plans for constructing a 2 meter/ 70 cm Dual band Beam?
Any
> help would be appreciated.
>
I've seen a quad set up for dual bands.
The elements for the 70 cm band are so small, they don'r interefere with the
2m band

2096. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 22:04:11 UTC
From: jgboyles@aol.com
Message-ID: <1128981851.427352.89460@g49g2000cwa.googlegroups.com>
Source record: 69093

Cecil Moore wrote:
> Reg Edwards wrote:
> > So we need something different from and more sophisticated than the
> > conventional automatic tuner with its relatively simple magnitude and
> > phase-searching abilities.
> >
> > I'll believe it when I see one which works.
>
> Reg, I just opened up my 2006 MFJ catalog. They have
> an "Automatic LoopTuner(TM)", the 300w MFJ-937. It's
> designed for approximately 1/10WL loops.
> --
> 73, Cecil, http://www.qsl.net/w5dxp
Hi Cecil, Looking at the MFJ site and trying to reverse engineer the loop tuners they sell...They monitor the loop current to get resonance, tune for maximum. Then they have an "L" network to match 50 ohms. They have a Butterfly style Cap. for HV., and monitor the current as it is adjusted. Have a 50 ohm cross needle swr bridge to detect a 50 ohm match, for their matching control. I assume their "auto loop tuner" looks at the same stuff.
Gary N4AST

2097. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 22:41:58 UTC
From: Larry Benko <xxw0qe@comcast.net>
Message-ID: <9YydnR9f6Kqrc9feRVn-jg@comcast.com>
Source record: 69094

Duncan wrote:
> Jim wrote:
>
>>This isn't strictly a Ham question, but I hope you all can help me anyway.
>>
>>I am using small transmitters in the 166-167 mhz range in some Box Turtle
>>research I am doing. My RDF antenna is a 3 element Yagi designed via
>>Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
>>degrees beamwidth in the H pattern.
>>
>>This works well for initial locating......usually starting 1500 to 2000 feet
>>from my transmitter, but the closer I get, the more inaccurate it becomes.
>>
>>What kind of antenna design could I switch to when I get to close range that
>>would have a narrower beam so I could pinpint my target? It would be nice
>>to have something smaller than my 35" x 21" yagi for close in work, but the
>>beam width is the primary concern.
>>
>>Yagicad doesn't let me design solely on beam width (at least I haven't
>>figured out how) so is there another way to go on this??
>>
>>Thanks
>>Jim
>
>
>
> The doppler shift method mentioned by Dave has worked very well for me
> but it only gives you a chioce between 2 directions. If you know the
> kind of area your turtles are likely to be then it should work
> otherwise you can use iyt in conjunction with you yagi antenna to get a
> accurate direction. The doppler shift method (unlike directional
> antennas) is not affected by signal strength. This is because it works
> by using two small antennas and determining which one the radio wave
> hits first (this type of device usually generates a tone which
> dissapears when the wave hits both antennas at the same time). This
> tells you with a good degree of accuracy that the transmitter is in
> front of or behind you.
>

Let's not forget that the antenna on the turtle will not polarized in
any particular fashion so antennas such as dopplers may not show nulls
and may show peaks incorrectly. I would take a yagi that I can rotate
to match the polarization to the source any day over TDOA or doppler
type antennas. Also I would always favor hunting the peak versus the

null especially if any reflections are present. If you are having problems with a full sized yagi is it due to equipment limitations or to physical constaints such as vegetation?

73,
Larry, W0QE

2098. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 22:51:45 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndkls41.2fag.bit-bucket@shell.config.com>
Source record: 69095

On Mon, 10 Oct 2005 17:47:59 -0400, Amos Keag wrote:
> Cecil Moore wrote:
>> Peter wrote:
>>
>>> I could add the word ass and fanny to the conversation we're having
>>> but I'd better not !
>>
>> In England, a friend of mine was introduced thusly:
>> "Hey Everyone! Here's a friend from America! He's Randy!"
>> Randy wondered why everyone was laughing.
>
> I'm ignorant [technical usage] please tell me why!

I suppose that includes "web ignorant", too...

http://www.google.com/search?&q=define:Randy

2099. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 22:52:51 UTC
From: David <groups@orbitcoms.com>
Message-ID: <7hC2f.14358$U51.7097@news-server.bigpond.net.au>
Source record: 69096

I have tried entering the model shown in EZNEC 4

The "View" of the antenna looks fine but when I try to run the
simulation it reports that it cannot because the gain is negative.

I then changed from azimuth to elevation simulation but this time it
reported the maxim 500 segments were exceeded.

I then reduce the segments slightly but now the program reports Runtime
error M6201: Math Sqrt Domain error.

ie. Cannot get the model to work using EZNEC. I'll see if it will run in
MNANA.

Richard Clark wrote:
> On Mon, 10 Oct 2005 16:05:16 GMT, "Frank" <ve6cb@nospam.telus.net>
> wrote:
>
>
>>My model is only valid providing the coax has no current on the exterior of
>>the shield. All I did was extend one leg of the dipole by the length
>>specified, but not actually connected to it; with a 1.2" gap. As per the
>>following sketch.
>>
>>----------o---------- ----------
>> dipole extension
>>
>>Do you think it makes sense? It is the only way I could think of modeling
>>it with NEC.
>
>
> Hi Frank,
>
> No. The extension lies in the null of the dipole. As such, it would
> be no mystery that it has so little influence.
>
> To model it correctly requires some form of cage or skirt of wires as
> Wes has provided in this thread.
>
> 73's
> Richard Clark, KB7QHC

2100. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 23:09:19 UTC
From: Bruce <xxx@yyy.zzz>
Message-ID: <Xns96EBC33DC1298xxxyyyzzz@216.77.188.18>
Source record: 69097

Bob Bob <bob3bob3@cox.net> wrote in
news:20rq13-5m2.ln1@p400bob.personal.cox.net:

> Hi Jim
>
> Hams will quite often get involved in hidden transmitter hunts during
> field day games. You might be surprised at the expertise out there.
>
> Some notes/thoughts for you;
>
>
> - I'd suspect that the problem might actually be more in the receiver
> than antenna. As the signal gets stronger/closer the radio might be
> running out of signal reporting range,. ie everything is just over a
> certain value so it is treated as being at maximum. It is quite common
> under these conditions to switch in an amount of attenuation to reduce
> the signal to a more reportable figure. This usaully goes in the
> antenna feedline.
>
> - In addition to the above your receiver may not be very well shielded
> such that signal actually bypasses the antenna/coax path and thus
> gives you less peaks and nulls to go off. You can check this by
> placing a dummy load (usually 50 ohms) in the antenna cable socket and
> checking for the nearby signal.

Ahhh, you beat me to this.

Now, if the receiver IS well shielded enough, if you can insert a
switchable attenuator in the coax, you can reduce the signal strength
significantly...and, FM receivers get very non-linear below about 20dB
quieting, they quiet faster than the actual input. In otherwords, you
could get 3-4 dB quieting change for 1dB of singal change. What this will
do is make you antenna pattern SEEM narrower.

What I used to do was to change to an RF field strengtth meter with a
small cavity filter tuned to the frequency I was hunting when I got
really close.

>
> - The human body is excellent for using as a directional attenuator.
> If you had a simple omni antenna attached and only a few inches in
> front of your body you'll get maximum attenuation (lowest signal) when
> you are facing away from the target turtle.

YES! But, you need to keep you body completely symetrical, stick an elbow
out and you will distort the pattern. Also, when the signal gets large

enough, remove the antenna.

-Bruce

2101. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 23:42:09 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <I%C2f.28422$q81.23047@trnddc06>
Source record: 69099

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:FsB2f.11687$ke.980@bignews3.bellsouth.net...
>
> "jroske" <jroske@frontiernet.net> wrote in message
> news:BE72f.1188$647.369@news01.roc.ny...
>> Does anyone have plans for constructing a 2 meter/ 70 cm Dual band Beam?
> Any
>> help would be appreciated.
>>
> I've seen a quad set up for dual bands.
> The elements for the 70 cm band are so small, they don'r interefere with
> the
> 2m band
>
>How about the 2M elements being seen by the 70cM elements- close to
>resonant at 3 wavelengths circumference?

Dale W4OP

2102. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-10 23:51:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <livlk1tm2sdqs94qtrd4cahmumqram1flc@4ax.com>
Source record: 69101

On Mon, 10 Oct 2005 22:52:51 GMT, David <groups@orbitcoms.com> wrote:

> Cannot get the model to work using EZNEC.

Hi David,

Sounds like you got a wire crossed somewhere.

73's
Richard Clark, KB7QHC

2103. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 00:40:07 UTC
From: Cliff Curry <cliffcurry_nospam_323@comcast.net>
Message-ID: <C8mdnQUoK_hxlNbeRVn-uw@comcast.com>
Source record: 69103

In all transmission lines, including coax, there are various shapes of transverse electric and magnetic fields that can exist for the particular transmission line geometry. For each shape, the "propagation constant" can be calculated. Many transmission lines (at lower frequencies) have only one shape with propagates with low attenuation. The other shapes can exist, but their "propagation constant" is such that they decrease exponentially with distance. The propagation constant for each shape can be calculated, and is often a function of frequency.
When there is a discontinuity in a line, other shapes than the usual one must exist at the point of the discontinuity. (for example, in order to ensure that the transverse electric field is zero the surface of a conducting shape that is part of the line discontinuity). Thus, these other shapes exist (at a certain amplitude) at the point of discontinuity. The amplitude of the other shapes decreases exponentially at distances away from the discontinuity. The rate of the fall-off will depend on the particular shape, according to its propagation constant.
Thus, the distance needed to be back to regular old TEM propagation in a coax will depend on the particular discontinuity, and the propagation constants of the "higher order modes" or different field shapes, of a coax line.
I have seen examples worked out for waveguide propagation and a step change in waveguide width. There are probably worked examples of coax discontinuities in the literature, also.
These non-propagating shapes are usually called " evanescent modes", and this would be a good search term to use to investigate this further.

Cliff Curry

"Ian White G/GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message news:b5tuTEH243RDFA$j@ifwtech.co.uk...
> Cecil Moore wrote:
>>Owen Duffy wrote:
>>> Cecil, do you have some quantitative explanation / support for this?
>>
>>Nope, but there were no disagreeing postings.
>>
>>> I am not asking whether or not field conditions (and V/I on the
>>> conductors) immediate to the discontinuity are not Zo of either of the
>>> lines, just where has the 2% of a wavelength come from?
>>
>>As I remember it came from the spacing between conductors Vs wavelength.
>>The spacing between conductors is about 0.1 inches for RG-58. How many
>>times that value would you think it would take for a transmission line
>>to force its Z0 upon the signals? At 10 MHz, 2% of a wavelength (24
>>inches)

>>is about 250 times the spacing between conductors.
>
> Maybe the electromagnetics people have a useful way to visualize it...
>
> Deep inside the coax, the electric field lines between the inner and outer
> of the coax are exactly at right-angles to the main axis. Where that is
> exactly true, you have a pure TE10 mode so it's also valid to assume that
> V/I is exactly equal to Zo.
>
> Very close to the end of the coax, the electric field lines from the
> center conductor start to reach out and connect with whatever is out there
> beyond the end of the shield. Then you no longer have pure TE10 and can no
> longer assume that V/I=Zo.
>
> Coming at it from the other direction, the question would be: how far into
> the coax must you go before the field lines become accurately at
> right-angles?
>
> We can be sure that the field lines won't suddenly snap from being
> divergent to being accurately at right-angles, so what we're really asking
> is: how far before the field lines are near-enough at right angles to make
> V/I=Zo a good engineering approximation?
>
> Intuitively, the diverging field lines only seem likely to occur within a
> few diameters of the end of the shield. Field lines always connect with
> highly conducting surfaces at right-angles, and they won't like to be
> sharply bent to run along the axis of the coax.
>
> In other words, the effect would seem to be mainly a function of shield
> diameter D. Again intuitively, I can't see where wavelength would come
> into it, unless D itself is a significant fraction of the wavelength
> (which is normally never true, and even microwave engineers try to avoid
> it).
>
> Following this picture of diverging field lines, there should also be a
> secondary effect depending on how the inner and shield of the coax are
> connected to the circuit outside.
>
> All of this suggests that it's impossible to give a single answer that
> would be valid for all cases (unless you choose a number that's so big, it
> can't fail to be correct... like "120 radials" :-)
>
> However, none of this speculation is of any practical consequence. All
> practical experience indicates that if a line is so short that V/I is not
> quite equal to Zo, the impedance transformation along that line will be so
> small that the effect of any Zo error is lost in the noise.
>
>
>
> --

> 73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

2104. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 01:05:32 UTC
From: David <groups@orbitcoms.com>
Message-ID: <wdE2f.14561$U51.11354@news-server.bigpond.net.au>
Source record: 69104

Some ninkum poop (me) had the units set to wavelengths instead of inches.

It does run now. Thanks for the model, it gives me a starting point to
"play" with the thing.

Richard Clark wrote:
> On Mon, 10 Oct 2005 22:52:51 GMT, David <groups@orbitcoms.com> wrote:
>
>
>>Cannot get the model to work using EZNEC.
>
>
> Hi David,
>
> Sounds like you got a wire crossed somewhere.
>
> 73's
> Richard Clark, KB7QHC

2105. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 01:10:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3iE2f.344$q%.18@newssvr12.news.prodigy.com>
Source record: 69105

Amos Keag wrote:
> Cecil Moore wrote:
>> In England, a friend of mine was introduced thusly:
>> "Hey Everyone! Here's a friend from America! He's Randy!"
>> Randy wondered why everyone was laughing.
>
> I'm ignorant [technical usage] please tell me why!

I think it's because "randy" in England means the same
thing as "horny" in the US.
--
73, Cecil http://www.qsl.net/w5dxp

2106. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 01:19:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <tqE2f.347$q%.200@newssvr12.news.prodigy.com>
Source record: 69106

Owen Duffy wrote:
> I know it is common practice to tune screwdrivers for max power out
> from IC706s (tuning for "maximum smoke"), but is that good for the
> tuner?

The SG-230 seems to handle 100 watts just fine. It is
interesting to listen to an autotuner tune up a transmitter
equipped with foldback. Clickidy-Click, the signal goes from
S5 to S9. If the foldback circuitry failed, then there would
probably be a bad outcome.

Assuming foldback and reflected power not invading the remote
tuner, I don't see why any harm would be done. 'Course, I'm
suffering from macular degeneration.
--
73, Cecil http://www.qsl.net/w5dxp

2107. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 01:21:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1sE2f.349$q%.118@newssvr12.news.prodigy.com>
Source record: 69107

Hal Rosser wrote:
> The elements for the 70 cm band are so small, they don'r interefere with the
> 2m band

But the opposite may not be true since 444/3=148.
--
73, Cecil http://www.qsl.net/w5dxp

2108. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 01:42:26 UTC
From: richardharrison@webtv.net
Message-ID: <4531-434B1882-1048@storefull-3253.bay.webtv.net>
Source record: 69108

Jim wrote:
"What kind of antenna design could I switch to when I get to close range that would have a narrower beam so I could pinpoint my target?"

J. Roy Smith, W6YA described what he called "the simplest of DF loops, with no ambiguity of direction" in CQ magazine`s 1963 "Antenna Roundup". Roy also called ot the "Nobaloop".

Roy said it was designed for locating signals on the 10-meter band but has been used with reasonable success on the lower frequency bands. Roy used the loop on 80 transmitter hunts winning first place 15 times when many of his competitors were using identical loops.

The loop is about a 1-meter length of 1/4-in. dia.copper tubing (gas line) bent into a neat circle. The two ends are flattened for about half an inch in a plane perpendicular to the radius. Number 28 holes are drilled through the flattened tubing about 1/4-inch from the ends. The loop is attached to a coax receptacle such as Amphenol 83-IR or military type SO 239. One loop end is attached to the outer conductor by a 6-32 screw through one of the four holes. The other loop end is placed over the receptacle`s center conductor lug and soldered well.

The small loop gives a figure-8 response in the plane of the loop. The attached coax distorts this pattern, adding its vertical response, like a sense antenna. The resulting pattern is a cardiod.

Nearby vertical objects may need detuning to avoid interference with the vertical loop.

The maximum lobe is about 30-degrees wide.

The null is about 5-degrees wide, according to the author.

I have not built it but it seems simple, small, and easy to duplicate.

Best regards, Richard Harrison, KB5WZI

2109. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 02:40:14 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <706af$434b264d$97d558d8$2462@ALLTEL.NET>
Source record: 69109

Let's face it - English is a crazy language. There is no egg in eggplant, nor ham in hamburger; neither apple nor pine in pineapple. English muffins weren't invented in England or French fries in France. Sweetmeats are candies while sweetbreads, which aren't sweet, are meat. We take English for granted. But if we explore its paradoxes, we find that quicksand can work slowly, boxing rings are square and a guinea pig is neither from Guinea nor is it a pig.

And why is it that writers write but fingers don't fing, grocers don't groce and hammers don't ham? If the plural of tooth is teeth, why isn't the plural of booth, beeth? One goose, 2 geese. So one moose, 2 meese? One index, 2 indices? Doesn't it seem crazy that you can make amends but not one amend? If you have a bunch of odds and ends and get rid of all but one of them, what do you call it?

If teachers taught, why didn't preachers praught? If a vegetarian eats vegetables, what does a humanitarian eat? Sometimes I think all the English speakers should be committed to an asylum for the verbally insane. In what language do people recite at a play and play at a recital? Ship by truck and send cargo by ship? Have noses that run and feet that smell?

How can a slim chance and a fat chance be the same, while a wise man and a wise guy are opposites? You have to marvel at the unique lunacy of a language in which your house can burn up as it burns down, in which you fill in a form by filling it out and in which, an alarm goes off by going on.

English was invented by people, not computers, and it reflects the creativity of the human race, which, of course, is not a race at all. That is why, when the stars are out, they are visible, but when the lights are out, they are invisible.

PS. - Why doesn't "Buick" rhyme with "quick"

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:434cd876.474806555@news.blueyonder.co.uk...
> On Sat, 08 Oct 2005 13:33:35 -0400, Amos Keag <A.K01@comcast.net>
> wrote:
>
> >Because it's ALUMINUM!!!
> >
> >Tyre is an ancient biblical city. Tire is that round thingee between my
> >automobile and the road surface.
> >
>
> Tire is what I do very rapidly when listen to a politician spout forth
> on the TV ... :-)

2110. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 02:54:41 UTC
From: Sluggo <luser@AOL.com>
Message-ID: <h3dmk1p0od57ig3q5qpm1qgq5gkdtdq3lm@4ax.com>
Source record: 69110

Sorry I'm too tired to look up a better example, but
http://members.aol.com/BmgEngInc/Adcock.html
is still pretty good. It's essentially about like the
"phased verticals" the other fellow mentioned, in that
they both result in a "cardioid" pattern, i.e. a sharp
notch in the pattern, broadside to the array in this
case. That notch will be far sharper than any beamwidth
in gain that a Yagi can possibly have, and, a notch is
what you want, close-in, rather than overloading your
receiver. The one I used was built by another ham, and
IIRC the twin-lead between the two vertical elements was
some weird, 50 or 75 ohm twinlead, which is going to be
hard to find, and it was crossed, as hinted at in the lower
diagram in the URL above, but I think it probably just
connected to the coax to the rig at that point, rather than
any sort of "Combiner Box" like that shown. We used them
to DF a guy who was jamming a 2M repeater net every week.
We had cheap compasses, like you'd have on a boat,
fixed to the broomstick "boom" of the array, and it was
suprisingly accurate at to where all the lines intersected
over a period of time. Don't know what ever happened;
it was coming from inside a secure telco property, so we
couldn't do much "up close and personal" and FCC did
not show up as they were allegedly scheduled to do the
night I was involved.

Just surf around for "Adcock" and DF, antenna, whatever,
and I'm sure you'll find what you need. The Doppler antenna
the other fellow mentioned are spiffy, but I don't know how
inexpensively they can be done. Last time I saw one, it
was a dedicated, factory built unit... maybe these days
it's possible to "power" the logic with a laptop or something..
It'd be very simple to scale a 2m (144-148 MHz) antenna to
your band...

Good luck..

HTH,
73,
Sluggo

On Tue, 11 Oct 2005 01:03:34 -0400, "Jim" <jbasi@cfw.com> wrote:

>This isn't strictly a Ham question, but I hope you all can help me anyway.
>
>I am using small transmitters in the 166-167 mhz range in some Box Turtle

>research I am doing. My RDF antenna is a 3 element Yagi designed via
>Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
>degrees beamwidth in the H pattern.
>
>This works well for initial locating......usually starting 1500 to 2000 feet
>from my transmitter, but the closer I get, the more inaccurate it becomes.
>
>What kind of antenna design could I switch to when I get to close range that
>would have a narrower beam so I could pinpint my target? It would be nice
>to have something smaller than my 35" x 21" yagi for close in work, but the
>beam width is the primary concern.
>
>Yagicad doesn't let me design solely on beam width (at least I haven't
>figured out how) so is there another way to go on this??
>
>Thanks
>Jim
>

2111. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 02:57:44 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <ISF2f.9497$y_1.6115@edtnps89>
Source record: 69111

>>----------o---------- ----------
>> dipole extension
>>
>>Do you think it makes sense? It is the only way I could think of modeling
>>it with NEC.
>
> Hi Frank,
>
> No. The extension lies in the null of the dipole. As such, it would
> be no mystery that it has so little influence.
>
> To model it correctly requires some form of cage or skirt of wires as
> Wes has provided in this thread.
>
> 73's
> Richard Clark, KB7QHC

I did not notice that somebody had attempted what you suggest. I translated the coordinates into regular NEC2, and it does run. It appears to violate some NEC2 criteria, but not sure how critical the model is. Obviously I cannot use the "Minninec" ground, so have substituted an average S/M ground with the coax end about an inch above the ground. I had assumed the antenna was for HF, so it is probably impractically high, causing multiple lobing. A free space model might provide more meaningful results.

73,

Frank

2112. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 03:20:51 UTC
From: David <groups@orbitcoms.com>
Message-ID: <ncG2f.14652$U51.13111@news-server.bigpond.net.au>
Source record: 69112

Does it matter that the outer sleeve and radiator element are connected
together in the model ?

The actual antenna only connects the sleeves to earth braid and the
centre conductor does not touch anything ?

Frank wrote:
>>>----------o---------- ----------
>>> dipole extension
>>>
>>>Do you think it makes sense? It is the only way I could think of modeling
>>>it with NEC.
>>
>>Hi Frank,
>>
>>No. The extension lies in the null of the dipole. As such, it would
>>be no mystery that it has so little influence.
>>
>>To model it correctly requires some form of cage or skirt of wires as
>>Wes has provided in this thread.
>>
>>73's
>>Richard Clark, KB7QHC
>
>
> I did not notice that somebody had attempted what you suggest. I translated
> the coordinates into regular NEC2, and it does run. It appears to violate
> some NEC2 criteria, but not sure how critical the model is. Obviously I
> cannot use the "Minninec" ground, so have substituted an average S/M ground
> with the coax end about an inch above the ground. I had assumed the antenna
> was for HF, so it is probably impractically high, causing multiple lobing.
> A free space model might provide more meaningful results.
>
> 73,
>
> Frank
>
>

2113. Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 05:03:34 UTC
From: Jim <jbasi@cfw.com>
Message-ID: <e2bd0$434aabe2$d80c3c80$26657@NAXS.COM>
Source record: 69171

This isn't strictly a Ham question, but I hope you all can help me anyway.

I am using small transmitters in the 166-167 mhz range in some Box Turtle research I am doing. My RDF antenna is a 3 element Yagi designed via Yagicad 4.1 which works pretty well. It has 48db front/back and about 90 degrees beamwidth in the H pattern.

This works well for initial locating......usually starting 1500 to 2000 feet from my transmitter, but the closer I get, the more inaccurate it becomes.

What kind of antenna design could I switch to when I get to close range that would have a narrower beam so I could pinpint my target? It would be nice to have something smaller than my 35" x 21" yagi for close in work, but the beam width is the primary concern.

Yagicad doesn't let me design solely on beam width (at least I haven't figured out how) so is there another way to go on this??

Thanks
Jim

2114. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 06:40:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <egnmk11p4c6cc2cu1s189rfmdoio76q3o6@4ax.com>
Source record: 69113

On Tue, 11 Oct 2005 01:05:32 GMT, David <groups@orbitcoms.com> wrote:

>Some ninkum poop (me) had the units set to wavelengths instead of inches.
-YOW!-
>It does run now. Thanks for the model, it gives me a starting point to
>"play" with the thing.

Hi David,

I provided no model so you should revisit the thread to offer those
thanks where they are due.

73's
Richard Clark, KB7QHC

2115. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 06:43:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eknmk1d7iossut0te9hgbq9dj8i46dg6ng@4ax.com>
Source record: 69114

On Tue, 11 Oct 2005 02:57:44 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>I did not notice that somebody had attempted what you suggest.

Hi Frank,

You need to revisit the posters to the thread. Wes, N7WS, went to
some trouble to provide a comprehensive response.

>A free space model might provide more meaningful results.

It will certainly be different results - all depends on what your
goals are.

73's
Richard Clark, KB7QHC

2116. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 06:48:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ornmk1hd2icep7qo2g6lo4n6bhhsmjcdki@4ax.com>
Source record: 69115

On Tue, 11 Oct 2005 03:20:51 GMT, David <groups@orbitcoms.com> wrote:

>Does it matter that the outer sleeve and radiator element are connected
>together in the model ?

Hi David,

ALL connections contribute to radiation. Their combination is what
builds the familiar lobe characteristic.

>The actual antenna only connects the sleeves to earth braid and the
>centre conductor does not touch anything ?

That's one way, the convention - could be t'other way 'round too; and
perhaps more interesting.

73's
Richard Clark, KB7QHC

2117. Re: Re Magnetic Loop !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 07:41:14 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <+413T6Fay2SDFAzm@ifwtech.co.uk>
Source record: 69116

Reg Edwards wrote:
>
>"Ian White G/GM3SEK" wrote in
>> If we're not clever enough to build an automatic ATU for a magloop,
>it's
>> a sign that there's something about magloops we still need to
>know...
>==========
>
>We are able to analyse and predict the behaviour of magloops to any
>required degree of precision.
>
>What is missing is how both a magnitude-searching and phase-searching
>circuit of an automatic tuner works when denied access to the
>magnitude-searching component.
>
Not necessarily... see later.

These paragraphs about a T-tuner are really a digression from this
topic, but worth a comment:

>When manually adjusting a tuner it is obvious to the operator that the
>controls INTERACT with each other. Both variable controls equally
>affect both magnitude and phase. That much can be gleaned from
>inspection of the circuitry.
>
>For example, in the case of a T-tuner with two variable capacitors,
>the operator cannot concentrate on one variable exclusively to the
>other. He continually has to swap from one to the other and obtain a
>balance by progressively closer approximations whilst keeping his eyes
>on the co-called SWR meter.
>
>An automatic tuner manages to complete the operation by varying both
>controls simultaneously. But it is obvious from observation of what
>the drive motors are doing, and the time taken to do it, that the
>circuit is behaving just like a human operator. Occasionally the
>motors even have to reverse and try again.
>
>When denied access to either one of the two variable controls, the
>automatic tuner doesn't know what to do next and would become lost.
>
There are actually three variable controls in a C-L-C T-tuner. For
minimum internal losses (mostly in the L) the inductance needs to finish
up at the smallest value that will allow the two Cs to achieve a match.
To do it right, there should be some stepping of the L, until it won't

match any more, and then a step back to the last set of values that did match.

>If the desired impedance magnitude is known to be 50 ohms and is
>somehow inserted in the circuit, this is of little assistance to how
>the circuit behaves because when the main loop is off-resonance the
>actual resistive component is miles away from 50 ohms yet the
>automatic tuner is obliged to do something about it.

Not sure what you mean here (that thing about "inserted in circuit" wasn't anything I intended to suggest or imply).

Back to loops...

>But without the
>ability to vary the diameter of the coupling loop, as I say, it is
>lost.
>
Hang on - who varies the diameter of the coupling loop in routine operation? I thought we were only looking for something that would help a correctly functioning loop to track up and down the band.... in other words, to operate the tuning control for us.

Like Owen, I'd still be very interested to learn what "maximum noise" on receive actually means in terms of R and X and/or phase on transmit.

>I trust you are comfortably settling down in your new country. I have
>spent happy years, in bits, working in Scotland. It is a most
>civilised place.

It certainly is. I wish we were there all the time, but my wife and I are still only spending about one week in two in our new home, because the removal from England is still dragging on.

Apologies in advance, but I don't have a newsgroup feed in Scotland yet, which means I'm liable to disappear suddenly in mid-conversa

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2118. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 07:45:51 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <AoY4HRGv22SDFA0L@ifwtech.co.uk>
Source record: 69117

Cliff Curry wrote:
>In all transmission lines, including coax, there are various shapes of
>transverse electric and magnetic fields that can exist for the particular
>transmission line geometry. For each shape, the "propagation constant" can
>be calculated. Many transmission lines (at lower frequencies) have only one
>shape with propagates with low attenuation. The other shapes can exist, but
>their "propagation constant" is such that they decrease exponentially with
>distance. The propagation constant for each shape can be calculated, and is
>often a function of frequency.
> When there is a discontinuity in a line, other shapes than the usual
>one must exist at the point of the discontinuity. (for example, in order to
>ensure that the transverse electric field is zero the surface of a
>conducting shape that is part of the line discontinuity). Thus, these other
>shapes exist (at a certain amplitude) at the point of discontinuity. The
>amplitude of the other shapes decreases exponentially at distances away from
>the discontinuity. The rate of the fall-off will depend on the particular
>shape, according to its propagation constant.
> Thus, the distance needed to be back to regular old TEM propagation in a
>coax will depend on the particular discontinuity, and the propagation
>constants of the "higher order modes" or different field shapes, of a coax
>line.
> I have seen examples worked out for waveguide propagation and a step
>change in waveguide width. There are probably worked examples of coax
>discontinuities in the literature, also.
> These non-propagating shapes are usually called " evanescent modes", and
>this would be a good search term to use to investigate this further.
>

All agreed. Along with the math that Cecil has retrieved and quoted
again, everything points towards the distance in question being a
function of coax diameter only; and not wavelength.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2119. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 08:11:19 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <YqaenRInO3SDFAnj@ifwtech.co.uk>
Source record: 69118

Richard Harrison wrote:
>Ian White, G/GM3SEK wrote:
>"An alternative possibility is that the Bird 43 does give valid readings
>by sampling at the point where it physically is."
>
Sorry, Richard, apparently my attempt at irony fell flat. Let me put it another way:

The instrument can only make measurements at the point on the line where it physically IS. Therefore the Bird 43 cannot be measuring "SWR" by sampling the maximum and minimum voltages at locations further up and down the line.

Therefore it follows that the instrument must actually be measuring something else... namely, what you described in your follow-up:

>Why is there power from the reverse direction for a Bird Model 43 to
>indicate? There is no second generator sending power in the peverse
>direction. The reverse r-f comes from a reflection. The coax enforces a
>voltage to current ratio equal to Zo in each direction of flow. Zo is 50
>ohms in the Model 43.
>
>Reflection does a peculiar thing. It produces a 180-degree phase
>reversal between a wave`s voltage and current. Bird uses the fact that
>the current is in-phase with the voltage in one direction of travel and
>out-of-phase in the opposite direction of travel to distinguish between
>the two directions.
>
>To distinguish, Bird takes a voltage sample and a current sample at the
>same point in a 50 ohm line. These two samples are scaled and calibrated
>to produce identical deflections of the power indicator.
>
>Out-of-phase samples thus cancel leaving the in-phase samples to produce
>double the deflection either would produce alone. This deflection is
>carefully calibrated in watts.
>
>Reversing the direction of the wattmeter element,

reverses the polarity of the current sample, while not affecting the voltage sample...

>and reverses the direction in which the samples
>of voltage and current cancel.
>

Yup. It measures the reflection coefficient of whatever impedance is
connected to the port on the opposite side from the transmitter. This
measurement is made at one physical point along the line.

The subsequent conversion to VSWR is a mathematical relationship only.

>The Bird has been satisfactory for about a half century.
>
As I've often said before, you don't need to defend the Bird 43 to me.
I own and use one, and admire the design. It only needs to be defended
from weird notions about how it works.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2120. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 08:51:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <difuf8$2jb$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69119

"Ian White wrote
> Yup. It measures the reflection coefficient of whatever impedance is
> connected to the port on the opposite side from the transmitter.

==========
No, it doesn't.

It measures the MAGNITUDE of the reflection coefficient. It discards
the information which is contained in the phase angle of the
reflection coefficient. As a consequence the only use which can be
made of the magnitude is to calculate the SWR on an imaginary 50-ohm
line. The SWR can be used to calculate the magnitude of the
reflection coefficient.

Reg.

2121. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 09:43:00 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <SV6soRKkk4SDFAUq@ifwtech.co.uk>
Source record: 69120

Reg Edwards wrote:
>
>"Ian White wrote
>> Yup. It measures the reflection coefficient of whatever impedance is
>> connected to the port on the opposite side from the transmitter.
>
>====================================
>No, it doesn't.
>
>It measures the MAGNITUDE of the reflection coefficient. It discards
>the information which is contained in the phase angle of the
>reflection coefficient.

Sorry, I left that important word out.

> As a consequence the only use which can be
>made of the magnitude is to calculate the SWR on an imaginary 50-ohm
>line.

Agreed. SWR has become a number that indicates the general "goodness" of an impedance match. It is almost always determined indirectly, by actually measuring something else and then calculating an SWR value.

The only way to measure VSWR truly and directly is to find the points of maximum and minimum voltage along the line, and measure the ratio of those two voltages. That is the classical definition of VSWR, but hardly anyone measures it that way, because it requires physical access to all points along the line. But if they do, then...

>The SWR can be used to calculate the magnitude of the
>reflection coefficient.

Engineers swap freely between the different available ways of expressing the "goodness" of an impedance match, choosing whichever one is the most convenient (or conventional) for the application.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2122. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 10:29:39 UTC
From: Jim <jbasi@cfw.com>
Message-ID: <84b0e$434af850$d80c392d$23119@NAXS.COM>
Source record: 69098

Believe me, the transmiters are not well filtered at all. In close range I easily get 2nd, 3rd, 5th, etc. harmonics.

I'd try the 3rd harmonic antenna, but my receiver doesn't go beyond 173 mhz or so, so I can't receive the 3rd harmonic.

I thought I'd be smart and have Yagicad design an antenna for the 2nd harmonic and then use it with my current receiver. I suppose you can guess the results from that failure...there is almost no null or beam width at all (360 degrees I guess). Oh, well.

Thanks
Jim

"Larry Benko" <xxw0qe@comcast.net> wrote in message news:0PWdncgoqtIVL9feRVn-gw@comcast.com...
> Jim wrote:
> > This isn't strictly a Ham question, but I hope you all can help me anyway.
> >
> > I am using small transmitters in the 166-167 mhz range in some Box Turtle
> > research I am doing. My RDF antenna is a 3 element Yagi designed via
> > Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
> > degrees beamwidth in the H pattern.
> >
> > This works well for initial locating......usually starting 1500 to 2000 feet
> > from my transmitter, but the closer I get, the more inaccurate it becomes.
> >
> > What kind of antenna design could I switch to when I get to close range that
> > would have a narrower beam so I could pinpint my target? It would be nice
> > to have something smaller than my 35" x 21" yagi for close in work, but the
> > beam width is the primary concern.
> >
> > Yagicad doesn't let me design solely on beam width (at least I haven't
> > figured out how) so is there another way to go on this??
> >
> > Thanks
> > Jim

> >
> >
>
> Jim,
>
> Assuming your transmitters are NOT super well filtered I would build a
> yagi for 3 times the frequency (498-501MHz) and listen on that frequency
> when very close. Very few transmitters will be so clean as to not be
> able to hear the 3rd harmonic. I DF and do running ARDF very often and
> if you don't mind the small second antenna and you have a receiver that
> can tune to the 3rd harmonic this will get you both the needed
> attenuation for being close and the ability to pinpoint the source.
>
> 73,
> Larry, W0QE

2123. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 10:47:49 UTC
From: Jim <jbasi@cfw.com>
Message-ID: <650c$434afc93$d80c392d$667@NAXS.COM>
Source record: 69100

True, I haven't thought of everything, but I have done this:

The yagicad design, which others have used very successfully for foxhunting antennas, should work o.k. at 3 or 4 feet above the ground, right? My transmitter antennas are horizontal trailing insulated wire. I have a fairly long cable so am able to hold it at arm's length from my body. It does have a very good null and I use both front and null in my RDFing.

My radio might not be the best as far as sheilding.....it is plastic cased. So I made a fiderglass holster for it with aluminum screen embedded in the fiberglass resin all the way around...kind of like a Faraday cage. I don't really know how this helps. It is not grounded, and I haven't really tested it out all that much. At a fair range I can receive my transmitters by connecting a rubber ducky antenna, and kill them when it is removed. SOMETIMES using my body to block the rubber ducky gives me a good null....but not good enough to RDF with.

Yes, the Box Turtle (several species in North America) is the one with the hinge on it's plasteron (the bottom "shell") which allows it to pull entirely in its shell and close up. Box Turtle numbers are decreasing thoughout thier ranges and will probably be rare over the next 50 to 100 years or so in many areas.

Thanks
Jim

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:20rq13-5m2.ln1@p400bob.personal.cox.net...
> Hi Jim
>
> Hams will quite often get involved in hidden transmitter hunts during
> field day games. You might be surprised at the expertise out there.
>
> Some notes/thoughts for you;
>
> - I'd be surprised that the yagi would exhibit 48dB F/B and if it did it
> would only be for a very narrow frequency range. This however isnt a
> huge problem. Even 20dB is more than ample for hidden TX finding.
>
> - Ensure that you arent cross polarized with the turtle antenna. It is
> possible for polarisation to change as the signal reflects off objects
> so reflected signal maybe stronger than the direct. This only gets to be
> a huge issue at cross polarised (say) plus or minus 10 degrees or so so
> just make sure you are in the ballpark.
>
> - Something that you modeled probably didnt allow for a ground so close

> and your body so near. What I am trying to get at is you may not be
> getting anything like the performance you expected because of these
> local detuning effects.
>
> - I'd suspect that the problem might actually be more in the receiver
> than antenna. As the signal gets stronger/closer the radio might be
> running out of signal reporting range,. ie everything is just over a
> certain value so it is treated as being at maximum. It is quite common
> under these conditions to switch in an amount of attenuation to reduce
> the signal to a more reportable figure. This usaully goes in the antenna
> feedline.
>
> - In addition to the above your receiver may not be very well shielded
> such that signal actually bypasses the antenna/coax path and thus gives
> you less peaks and nulls to go off. You can check this by placing a
> dummy load (usually 50 ohms) in the antenna cable socket and checking
> for the nearby signal.
>
> - The human body is excellent for using as a directional attenuator. If
> you had a simple omni antenna attached and only a few inches in front of
> your body you'll get maximum attenuation (lowest signal) when you are
> facing away from the target turtle.
>
> - If you antenna design isnt symetrical and there is an imbalance of
> currents in the coax you may get to receive a signal directly to the
> coax as well as the antenna. A few ferrite beads at the antenna
> feedpoint around the coax, coiling the coax in a 4" dia 5 turn loop or
> using some other form of balun (coaxial or otherwise might help.
> Obviously you can test this theory by playing with the coax orientation
> as well as the antennas.
>
> - Considering also using the null or side of the antenna. ie turn it at
> right angles to the turtle and where you get a very sharp loss of signal
> thats the direction (or 180 degrees out) the TX is.
>
> - Trying to narrow the beamwidth probably isnt a useful exercise with
> the size limitations you have. You stated 90 degrees (3db down)
> beamwidth. With (say) a 12 element yagi, 20ft long the beamwidth is
> around 38 degrees. Better but probably not useful for you.
>
> Hope this is useful to you.
>
> Oh and a question. Is the box turtle the one one that has the hinged
> flap in front? I found one on a busy road and I picked it up and moved
> it along in what I hope was the direction it was going. Had never seen
> one before! (New to the US)
>
> Cheers Bob W5/VK2YQA
>
> Jim wrote:

> > This isn't strictly a Ham question, but I hope you all can help me anyway.

2124. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 10:48:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <n46nk19924s4sjf3t3d2uq7ukcpvh9o3fa@4ax.com>
Source record: 69121

On Tue, 11 Oct 2005 10:43:00 +0100, Ian White G/GM3SEK
<gm3sek@ifwtech.co.uk> wrote:

>Reg Edwards wrote:
>>
>>"Ian White wrote
>>> Yup. It measures the reflection coefficient of whatever impedance is
>>> connected to the port on the opposite side from the transmitter.
>>
>>====================================
>>No, it doesn't.
>>
>>It measures the MAGNITUDE of the reflection coefficient. It discards
>>the information which is contained in the phase angle of the
>>reflection coefficient.
>
>Sorry, I left that important word out.
>

To be picky, in most implementations, its response is a function of
the forward or reflected power provided that Zo is real, and the
magnitude of the complex reflection coefficient can be calculated from
those measurements.

Owen
--

2125. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 11:01:26 UTC
From: Jim <jbasi@cfw.com>
Message-ID: <13eab$434affc3$d80c392d$10862@NAXS.COM>
Source record: 69102

I have a homebrew analog attenuator that has male and female BNC connectors that I can connect when necessary. It is variable 0 to 10 dB, and this sometimes helps a lot, but not always, and not when I get within 40 feet or so. I know this is not a problem when foxhunting (or is it?), but when there is a lot of brush and brambles and holes and such, I sure would like to reduce my hands and knees search area.

I worked with a researcher once that was able to locate his Bog Turtles under water within 6" to a foot via "pointing" the antenna (150 mhz). When the antenna pointed into the mud, he could stick in his hand and pull out the turtle......now that's good RDFing, and I don't expect anything like that, although the next time I'm taking measurements of his antenna to duplicate it if I can.

I am not familiar with a "cavity filter". I'll do some Googling on that. Can you fill me in on it's use?

Thanks
JIm

"Bruce" <xxx@yyy.zzz> wrote in message
news:Xns96EBC33DC1298xxxyyyzzz@216.77.188.18...
> Bob Bob <bob3bob3@cox.net> wrote in
> news:20rq13-5m2.ln1@p400bob.personal.cox.net:
>
> > Hi Jim
> >
> > Hams will quite often get involved in hidden transmitter hunts during
> > field day games. You might be surprised at the expertise out there.
> >
> > Some notes/thoughts for you;
> >
> >
> > - I'd suspect that the problem might actually be more in the receiver
> > than antenna. As the signal gets stronger/closer the radio might be
> > running out of signal reporting range,. ie everything is just over a
> > certain value so it is treated as being at maximum. It is quite common
> > under these conditions to switch in an amount of attenuation to reduce
> > the signal to a more reportable figure. This usaully goes in the
> > antenna feedline.
> >
> > - In addition to the above your receiver may not be very well shielded
> > such that signal actually bypasses the antenna/coax path and thus
> > gives you less peaks and nulls to go off. You can check this by
> > placing a dummy load (usually 50 ohms) in the antenna cable socket and

> > checking for the nearby signal.
>
> Ahhh, you beat me to this.
>
> Now, if the receiver IS well shielded enough, if you can insert a
> switchable attenuator in the coax, you can reduce the signal strength
> significantly...and, FM receivers get very non-linear below about 20dB
> quieting, they quiet faster than the actual input. In otherwords, you
> could get 3-4 dB quieting change for 1dB of singal change. What this will
> do is make you antenna pattern SEEM narrower.
>
> What I used to do was to change to an RF field strengtth meter with a
> small cavity filter tuned to the frequency I was hunting when I got
> really close.
>
> >
> > - The human body is excellent for using as a directional attenuator.
> > If you had a simple omni antenna attached and only a few inches in
> > front of your body you'll get maximum attenuation (lowest signal) when
> > you are facing away from the target turtle.
>
> YES! But, you need to keep you body completely symetrical, stick an elbow
> out and you will distort the pattern. Also, when the signal gets large
> enough, remove the antenna.
>
>
> -Bruce

2126. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 11:50:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dig8uhssa1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69122

"Owen Duffy" wrote
> To be picky, in most implementations, its response is a function of
> the forward or reflected power provided that Zo is real, and the
> magnitude of the complex reflection coefficient can be calculated
from
> those measurements.
>
==========
Owen,

Forward and especially reflected power are even more imaginary than
the SWR on a non-existent 50-ohm line.

The only use for forward and reflected power is to calculate the
magnitude of the reflection coefficient. And the only use for the
reflection coefficient is to calculate the imaginary SWR. And the only
use . . . . .

I understand meter manufacturers provide graphs, which, if you don't
know how to use a pocket calculator, will do the calculations for you.
But you will still go round in circles.

Reg.

2127. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 15:25:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9nlnk1tjcupna1oovg12ofvur7hfmrj7jq@4ax.com>
Source record: 69123

On Tue, 11 Oct 2005 09:11:19 +0100, Ian White G/GM3SEK
<gm3sek@ifwtech.co.uk> wrote:

>The subsequent conversion to VSWR is a mathematical relationship only.

Hi Ian,

This seems to be a particularly notable difference - to which
absolutely NO ONE has ever deviated from in ANY determination of SWR!

That is to say, this "mathematical" distinction that some rely on to
differentiate their arguments has not got one scintilla of difference
over any other method.

The only way to claim you "directly" measure SWR is to find some way
to place two probes of a meter along the line such that one probe goes
into the trough and the other into the peak and the meter reads SWR
directly. Unfortunately for rhetoric's sake, this STILL renders the
determination in terms of a mathematical relationship. It cannot be
escaped.

Why this keeps on being revisited must be to allow the new lurkers to
observe my correction.

73's
Richard Clark, KB7QHC

2128. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 15:37:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <j%Q2f.361$dO2.64@newssvr29.news.prodigy.net>
Source record: 69124

Reg Edwards wrote:
> It measures the MAGNITUDE of the reflection coefficient. It discards
> the information which is contained in the phase angle of the
> reflection coefficient. As a consequence the only use which can be
> made of the magnitude is to calculate the SWR on an imaginary 50-ohm
> line.

Reg, I dug up some calculations from sci.physics.electromag
from about a year ago that indicate one foot of 50 ohm coax
on each side of the Bird is enough to make the line real,
i.e. not imaginary, and that's a conservative estimate.
--
73, Cecil http://www.qsl.net/w5dxp

2129. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 15:40:55 UTC
From: Dave <noone@nowhere.com>
Message-ID: <paidnYixKsGXQNbeRVn-vw@crocker.com>
Source record: 69026

"Cecil Moore" <mycall@arrl.net> wrote in message
news:j%Q2f.361$dO2.64@newssvr29.news.prodigy.net...
> Reg Edwards wrote:
>> It measures the MAGNITUDE of the reflection coefficient. It discards
>> the information which is contained in the phase angle of the
>> reflection coefficient. As a consequence the only use which can be
>> made of the magnitude is to calculate the SWR on an imaginary 50-ohm
>> line.
>
> Reg, I dug up some calculations from sci.physics.electromag
> from about a year ago that indicate one foot of 50 ohm coax
> on each side of the Bird is enough to make the line real,
> i.e. not imaginary, and that's a conservative estimate.
> --
> 73, Cecil http://www.qsl.net/w5dxp

i like imaginary!

2130. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 15:50:28 UTC
From: PeteDBNZA <zs5actRemovethis@mweb.co.za>
Message-ID: <dign45$1jn$1@ctb-nnrp2.saix.net>
Source record: 69027

OK. So a linear amp would be built with tubes to allow full flow of signal
without restriction, while an audio amp might be built with valves, because
we would want to control (restrict) the audio volume. :)

This thread seems to have a life of its own. From ally to this!

Amazing!

--
Pete . .
ZS5ACT
http://www.electronic-ideas.com/zs5act/

------ Reply Separator ------

"Dave Piggin" <d.piggin@zetnet.co.uk> wrote in message
news:31303030383738354349 66E877@zetnet.co.uk...
>
>> Also, why do we say tube rather than valve?
>
> Because a tube allows a substance through it without restriction, a
> valve is a device for controlling such.
> Dave

2131. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 15:58:33 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <i9nnk1p4ilnupqq2tvskkulm77crmmcdi3@4ax.com>
Source record: 69028

On Tue, 11 Oct 2005 02:57:44 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>>>----------o---------- ----------
>>> dipole extension
>>>
>>>Do you think it makes sense? It is the only way I could think of modeling
>>>it with NEC.
>>
>> Hi Frank,
>>
>> No. The extension lies in the null of the dipole. As such, it would
>> be no mystery that it has so little influence.
>>
>> To model it correctly requires some form of cage or skirt of wires as
>> Wes has provided in this thread.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>I did not notice that somebody had attempted what you suggest. I translated
>the coordinates into regular NEC2, and it does run. It appears to violate
>some NEC2 criteria, but not sure how critical the model is.

Which criteria?

>Obviously I
>cannot use the "Minninec" ground, so have substituted an average S/M ground
>with the coax end about an inch above the ground. I had assumed the antenna
>was for HF, so it is probably impractically high, causing multiple lobing.

The multiple lobes are what you should see and are exactly my point.

>A free space model might provide more meaningful results.

If you can operate your antennas in free space then they would be
meaningful.

If you can't/won't buy Roy's fine EZNEC program, then may I suggest
4nec2 at zero cost or MultiNEC at nominal cost as alternatives to bare
NEC.

2132. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 15:59:41 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <NjR2f.364$dO2.98@newssvr29.news.prodigy.net>
Source record: 69029

Reg Edwards wrote:
> Forward and especially reflected power are even more imaginary than
> the SWR on a non-existent 50-ohm line.

My old Heathkit HM-15 SWR meter samples the peak forward and
reflected currents. A pot is used to set the meter to full
scale using a voltage proportional to the peak forward current.

When the voltage proportional to the peak reflected current is
then switched into the meter circuit, it reads SWR from the
precalibrated scale which is linear with |rho|, i.e. at half-scale,
SWR=3 and |rho|=(3-1)/(3+1)=0.5
--
73, Cecil http://www.qsl.net/w5dxp

2133. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:05:39 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <u9onk1l2rg7i6nlv0gp9a9u2ru5bvi69u2@4ax.com>
Source record: 69030

On Tue, 11 Oct 2005 03:20:51 GMT, David <groups@orbitcoms.com> wrote:

>Does it matter that the outer sleeve and radiator element are connected
>together in the model ?
>
>The actual antenna only connects the sleeves to earth braid and the
>centre conductor does not touch anything ?

In the model I supplied, the first wire (cleverly labeled "Source
Wire") contains the source. By modeling convention, a source must be
"on" a wire, so the wire connecting the upper radiator to the
skirt/sleeve is equivalent to the transmitter (coax center conductor)
and is *not* a short circuit.

2134. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:09:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <RsR2f.366$dO2.183@newssvr29.news.prodigy.net>
Source record: 69031

Ian White G/GM3SEK wrote:
> All agreed. Along with the math that Cecil has retrieved and quoted
> again, everything points towards the distance in question being a
> function of coax diameter only; and not wavelength.

Please forgive my previous senior moment.
It was ~2% of a wavelength at 10 MHz for RG-213.
It appears that one foot of coax on each side of
a Bird wattmeter is enough to establish Z0 at
50 ohms which forces Vfor/Ifor=Vref/Iref=50,
the necessary Bird boundary conditions.
--
73, Cecil http://www.qsl.net/w5dxp

2135. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:28:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ivpnk11vp0cm3nqrbcgm4b92ojp6rpn7lg@4ax.com>
Source record: 69032

```
On Tue, 11 Oct 2005 15:40:55 -0000, "Dave" <noone@nowhere.com> wrote:
>i like imaginary!
fantasy is more appropriate.
```

2136. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:29:57 UTC
From: Bill Turner <dezrat1242@ispwest.com>
Message-ID: <uupnk1l2nrjh5ef3qf83svv9pj3j9gk3am@4ax.com>
Source record: 69036

On Mon, 10 Oct 2005 22:40:14 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>English was invented by people, not computers, and it reflects the
>creativity of the human race, which, of course, is not a race at all.

~~~~~~

English is long overdue for an overhaul. Countless hours are spent by
schoolchildren learning all the bizarre exceptions to the "rules",
which aren't really rules at all. What a waste of time!

I would like to see a commission established to reform spelling, to
begin with, and if successful, work on grammar.

I love the English language, but the time has come.

73, Bill W6WRT
~~~~~~

2137. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:34:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l6qnk1tppde0emglher0ej2r1l9f81gchq@4ax.com>
Source record: 69033

On Tue, 11 Oct 2005 15:37:51 GMT, Cecil Moore <mycall@arrl.net> wrote:
>I dug up some calculations from sci.physics.electromag
which you recite here; then in sci.physics.electromag you can quote
their use by authorities (sic both times) in
rec.radio.amateur.antenna....

This appeal is called a circle of friendship - not evidence.

2138. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:37:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <qTR2f.374$dO2.42@newssvr29.news.prodigy.net>
Source record: 69034

Richard Clark wrote:
> That is to say, this "mathematical" distinction that some rely on to
> differentiate their arguments has not got one scintilla of difference
> over any other method.

I must have a dozen equations for SWR, all mathematically consistent
with each other. A lot of the math is performed by simply calibrating
a meter face. For instance, given a linear meter reading for |rho|
with full-scale equal to 1.0, SWR values can be applied to the
meter face with 3.0 at half-scale. (Ever notice how many SWR meters
have 3.0 at half scale?)
--
73, Cecil http://www.qsl.net/w5dxp

2139. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:47:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <32rnk11b8e9dv0m473ugqhba1sft38n4b9@4ax.com>
Source record: 69035

On Tue, 11 Oct 2005 16:37:42 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Ever notice how many SWR meters have 3.0 at half scale?
Amateur grade - 1 in 4;
Professional grade - none.

2140. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 16:57:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jaS2f.379$dO2.251@newssvr29.news.prodigy.net>
Source record: 69037

Richard Clark wrote:

> On Tue, 11 Oct 2005 15:37:51 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>I dug up some calculations from sci.physics.electromag
>
> which you recite here; then in sci.physics.electromag you can quote
> their use by authorities (sic both times) in
> rec.radio.amateur.antenna....
>
> This appeal is called a circle of friendship - not evidence.

Actually, it is called an argumentum ad verecundiam, an appeal
to authority - a technical authority in this case. I don't know
Kevin G. Rhodes at Dartmouth. He merely answered my question on
s.p.e. that didn't find an answer on this newsgroup. Exactly what
did you find technically wrong with the following evidence?

****Quote****
Newsgroups: sci.physics.electromag
From: "Kevin G. Rhoads" <Kevin.Rho...@Dartmouth.edu>
Date: Tue, 07 Oct 2003 12:49:14 -0400
Subject: Re: Transmission Line Question

For 10 MHz I would expect that all other modes
would be non-propagating (i.e., evanescent) even though RG-213
is a large coax (improved RG-8 apparently). The speed of propagation
is listed as 66%, so the nominal wavelength is 3/2 times the free
space wavelength for the TEM mode. 3/2 x 30m = 45m, which implies
the decay rate in space for non-TEM modes is going to be large
as the cable diameter is .405" (jacket) which implies the
spacing from inner to outer conductors will be less than .203".
For order of magnitude estimate, assuming the lowest non-TEM mode
can be approximated using a characteristic equation that really
is only applicable in Cartesian geometries:
(1/45m)**2 = (1/.203")**2 + kz**2
Clearly, kz must be imaginary to make this work. thus an
evanescant, non-propagating wave:
kz**2 = (1/45m)**2 - (1/.203")**2
To the accuracy used to date, the first term on the right
is negligible, so the decay rate, alpha, can be estimated:
alpha**2 = - (kz)**2 = (1/2.03")**2
Or, the lowest order undesired mode should reduce intensity
by a factor of 1/e (0.37) in about 2.03"; power will reduce
by that factor squared in the same distance (.135). In
about four inches, undesired mode power is down to about

0.018, in six inches, .00248, and after a foot, 6.14x10-6

You should double check my algebra, but I think the estimate
is reasonable. To put it into other terms, since the wavelength
in the coax dielectric is 45m and the conductor to conductor
spacing is about 2", any non-TEM mode will suffer attenuation
in E-field intensity with a space-rate constant rounghly
equal to the conductor to conductor spacing. INtensity
drops by 1/e = 1/2.71828 every 2 inches. Power availalbe
drops faster, being square of intensity.

So unless almost all the power diverts into an undesireable
mode (by a factor of more than a million to one), one foot
of cable should see pure TEM at the end.
End Quote
--
73, Cecil http://www.qsl.net/w5dxp

2141. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 17:11:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <TmS2f.383$dO2.129@newssvr29.news.prodigy.net>
Source record: 69038

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>Ever notice how many SWR meters have 3.0 at half scale?
>
> Amateur grade - 1 in 4;

Even my double-needle meters have 3:1 as a vertical line
at the center. All of my single-needle SWR meters have 3.0
at half scale since they are actually reading |rho|.

Check out this humoungous one. Click on the small meter
picture for a full-size picture.

http://www.mfjenterprises.com/products.php?prodid=MFJ-868
--
73, Cecil http://www.qsl.net/w5dxp

2142. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 17:15:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <digs0bdsv1@news.service.uci.edu>
Source record: 69039

But how does the attenuation length of non-TEM modes relate to the Zo of
a transmission line?

ac6xg

Cecil Moore wrote:

> Actually, it is called an argumentum ad verecundiam, an appeal
> to authority - a technical authority in this case. I don't know
> Kevin G. Rhodes at Dartmouth. He merely answered my question on
> s.p.e. that didn't find an answer on this newsgroup. Exactly what
> did you find technically wrong with the following evidence?
>
> ****Quote****
> Newsgroups: sci.physics.electromag
> From: "Kevin G. Rhoads" <Kevin.Rho...@Dartmouth.edu>
> Date: Tue, 07 Oct 2003 12:49:14 -0400
> Subject: Re: Transmission Line Question
>
> For 10 MHz I would expect that all other modes
> would be non-propagating (i.e., evanescent) even though RG-213
> is a large coax (improved RG-8 apparently). The speed of propagation
> is listed as 66%, so the nominal wavelength is 3/2 times the free
> space wavelength for the TEM mode. 3/2 x 30m = 45m, which implies
> the decay rate in space for non-TEM modes is going to be large
> as the cable diameter is .405" (jacket) which implies the
> spacing from inner to outer conductors will be less than .203".
> For order of magnitude estimate, assuming the lowest non-TEM mode
> can be approximated using a characteristic equation that really
> is only applicable in Cartesian geometries:
> (1/45m)**2 = (1/.203")**2 + kz**2
> Clearly, kz must be imaginary to make this work. thus an
> evanescant, non-propagating wave:
> kz**2 = (1/45m)**2 - (1/.203")**2
> To the accuracy used to date, the first term on the right
> is negligible, so the decay rate, alpha, can be estimated:
> alpha**2 = - (kz)**2 = (1/2.03")**2
> Or, the lowest order undesired mode should reduce intensity
> by a factor of 1/e (0.37) in about 2.03"; power will reduce
> by that factor squared in the same distance (.135). In
> about four inches, undesired mode power is down to about
> 0.018, in six inches, .00248, and after a foot, 6.14x10-6
>
> You should double check my algebra, but I think the estimate
> is reasonable. To put it into other terms, since the wavelength

> in the coax dielectric is 45m and the conductor to conductor
> spacing is about 2", any non-TEM mode will suffer attenuation
> in E-field intensity with a space-rate constant rounghly
> equal to the conductor to conductor spacing. INtensity
> drops by 1/e = 1/2.71828 every 2 inches. Power availalbe
> drops faster, being square of intensity.
>
> So unless almost all the power diverts into an undesireable
> mode (by a factor of more than a million to one), one foot
> of cable should see pure TEM at the end.
> ***End Quote***

2143. Re: Dipole on a hill? Farther from ground or farther up the hill?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 17:21:32 UTC
From: Ed Bailen <n5kzw@arrl.net>
Message-ID: <hrsnk192om6e8du657kbumfrj2m1brsba0@4ax.com>
Source record: 69040

On Mon, 03 Oct 2005 20:25:34 GMT, Lance Orner <lance@orner.net> wrote:

>Just getting back into HF, and I'm trying to get an antenna up on my
>small lot which backs up to a hillside. There are two locations
>available without erecting more infrastructure. One would be about 20
>feet up at the base of the hill, and the other is about 50 feet up the
>hill, but only 10 feet off the ground.
>
>So the question: Is it more important to have the antenna farther
>from ground, or father up the hill but closer to ground?
>
>In the future, I'd love to put a tall antenna at the tallest part of
>the hill, but I'm looking for something temporary right now.
>
>Thanks.

FWIW, the centers of my dipoles are near the top of a 40' tower near
the top of a hill behind my house. The ends of the 160m dipole are
about 8' off the ground, but about 60' to 80' below the base of the
tower. It works, but I don't have anything to compare it to. It's
the only mounting option I have unless I want to get a couple of
push-up masts to elevate the ends of the dipoles more. (They would
still end up below the base of the tower.

73,
Ed

2144. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 17:28:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bbtnk15blbvsr22vcegl56pcpm4qebmvid@4ax.com>
Source record: 69041

On Tue, 11 Oct 2005 16:57:51 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>>I dug up some calculations from sci.physics.electromag
>> which you recite here; then in sci.physics.electromag you can quote
>> their use by authorities (sic both times) in
>> rec.radio.amateur.antenna....
>> This appeal is called a circle of friendship - not evidence.
>Actually, it is called an argumentum ad verecundiam, an appeal
>to authority - a technical authority in this case.

Actually - you have said nothing that removes this from a circle of
old wives sitting around the stove in the kitchen.

Name dropping is not an appeal to authority, nor are third hand
quotes.

2145. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 17:29:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ditnk1hg29ueei4dpu8hubvnisi3matq5l@4ax.com>
Source record: 69042

On Tue, 11 Oct 2005 17:11:15 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Even my double-needle meters have 3:1 as a vertical line
You have a rather limited exposure to the field of instrumentation.

2146. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 17:44:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <JRS2f.389$dO2.38@newssvr29.news.prodigy.net>
Source record: 69043

Jim Kelley wrote:

> But how does the attenuation length of non-TEM modes relate to the Zo of
> a transmission line?

And to whether it's parallel or coaxial? Good question.
Kevin Rhodes' email address can be had from Google.
--
73, Cecil http://www.qsl.net/w5dxp

2147. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 17:45:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jTS2f.390$dO2.267@newssvr29.news.prodigy.net>
Source record: 69044

Richard Clark wrote:
> Name dropping is not an appeal to authority, nor are third hand
> quotes.

Exactly what did you find technically wrong with that
third hand quote?
--
73, Cecil http://www.qsl.net/w5dxp

2148. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 18:09:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <44eba$434bffff$97d558d8$29118@ALLTEL.NET>
Source record: 69045

I would then assume you disregard anything written in books as it falls in
the same category.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:bbtnk15blbvsr22vcegl56pcpm4qebmvid@4ax.com...
> On Tue, 11 Oct 2005 16:57:51 GMT, Cecil Moore <
>
> Name dropping is not an appeal to authority, nor are third hand
> quotes.

2149. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 18:30:20 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <dih0mdhjp2@ctb-nnrp2.saix.net>
Source record: 69046

"Bruce" <xxx@yyy.zzz> wrote in message
news:Xns96EA4DD152A15xxxyyyzzz@216.77.188.18...
> kashe@sonic.net wrote in
> news:nfvgk11r9qfobufnj3lsbl23jn01tqv8k4@4ax.com:
>
>> On Sat, 08 Oct 2005 14:43:58 -0500, Bob Bob <bob3bob3@cox.net> wrote:
>>
>>>And being even further OT
>>>
>>>Brings further ambiguity to the term "retired" as well. (Like my 65 yo
>>>father just had a wheel transplant)
>>>
>>>Since I live in W5... How does one say/spell Titanium/Titanum?
>>>
>>>I look at signs on the side of the road "Hiway" and cant for the life
>>>of me work out what that means...
>>>
>>>Peter, its actually said in the US how it looks.
>>
>> Which is why we pronounce extraordinary with five or six
>> syllables instead of two.
>>
>>> This gets real
>>>confusing for me! (Along with driving on the WRONG side of the road!
>>><grin>)
>>>
>>>Cheers Bob W5/VK2YQA East Texas
>>>(past the langauge test - can say "Y'all" easily)
>>>
>>>John N9JG wrote:
>>>
>>>>Why do you guys in the US always omit the "i" in aluminium ?
>
>
> You mean the second "i"? Probably because we spell it correctly: Aluminum.
> ;~)

But you do it ONLY to Alumin(i)um. What about Lithium, Barium, Chromium,
Ruthenium, Titanium, Uranium, and so on......?

> I suppose we could also ask why you need to pronounce the first "u" hard.

Most South Africans don't.

73
Roger ZR3RC

2150. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 19:20:35 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <7gU2f.9979$y_1.4296@edtnps89>
Source record: 69047

>>I did not notice that somebody had attempted what you suggest. I
>>translated
>>the coordinates into regular NEC2, and it does run. It appears to violate
>>some NEC2 criteria, but not sure how critical the model is.
>
> Which criteria?

This is from L. B. Cebik. "Basic Antenna Modeling: A Hands-On Tutorial", page 2-9 published by Nittany Scientific; "Among the most important conventions to adopt is to begin at one end of each antenna element and to proceed from that end to the other without changing directions in mid-stream". I have seen array pattern reversals when this is not followed. There will also be current discontinuities. To be honest, with such a high segmentation this will probably not effect the pattern of such a stucture, or for that matter the input impedance. Just for curiosity I will give it a try, and see if it makes much difference. Also, although it should not cause any problems, I would not have used a single segment for the source, just the end segment from the upper element.

>>Obviously I
>>cannot use the "Minninec" ground, so have substituted an average S/M
>>ground
>>with the coax end about an inch above the ground. I had assumed the
>>antenna
>>was for HF, so it is probably impractically high, causing multiple lobing.
>
> The multiple lobes are what you should see and are exactly my point.

I had assumed the antenna was to be used on HF, still comparing models with similar parameters will provide meaningful information.

>>A free space model might provide more meaningful results.
>
> If you can operate your antennas in free space then they would be
> meaningful.

True, but the pattern is much simplified. Even so, in free space, I do see evidence of minor patter ripple. I have also read (Cebik again) where the Mininec ground can produce eroneous results.

> If you can't/won't buy Roy's fine EZNEC program, then may I suggest
> 4nec2 at zero cost or MultiNEC at nominal cost as alternatives to bare
> NEC.

I use Nittany Scientific's (www.nittany-scientific.com) NEC-Win Pro, which seems to be a fairly good implementation of NEC2. The program does contain

simplified (spread sheet) data entry, but I prefer to enter in basic code,
which is apparently not available in EZNEC.

73,

Frank

2151. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 19:33:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <zsU2f.655$BZ5.505@newssvr13.news.prodigy.com>
Source record: 69048

Frank wrote:
> ... I prefer to enter in basic code,
> which is apparently not available in EZNEC.

EZNEC data can be entered from an ASCII file. I regularly
generate ASCII files using MS Professional Basic for entry
into EZNEC. Here's a quote from the EZNEC help file:

"Wire coordinates can be imported from an ASCII file in a simple
format, either replacing or adding to the existing model. This
can be used to import coordinates from another program."
--
73, Cecil http://www.qsl.net/w5dxp

2152. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 20:01:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dih5n9cca1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69049

"Cecil Moore" wrote
> Reg, I dug up some calculations from sci.physics.electromag
> from about a year ago that indicate one foot of 50 ohm coax
> on each side of the Bird is enough to make the line real,
> i.e. not imaginary, and that's a conservative estimate.
==========

Cec, I still have a 30-watt, 160m, portable transceiver which I made about 20 years back. It's in an aluminium attache case and still works. In my travelling days I used to toss a wire out of the hotel bedroom window.

Lift the lid and on the front panel is a 1.5"-square moving-coil meter. It is used as a TLI on transmit and as an S-meter on receive.

The meter scale is calibrated 0-500 microamps.

But my imagination doesn't fool ME.

On receive, when the meter indicates 50% of full-scale deflection I know that the meter is actually measuring 250 microamps.

And on transmit, when the meter indicates 90% of full scale deflection I know that the meter is actually measuring 450 microamps.

Let this little anecdote be a friendly warning to they who use meters with a 0 to infinity SWR scale, or scaled in terms of forward and reverse power.

Reg, G4FGQ.

2153. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 20:11:55 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <AfQIKDGLyBTDFAPA@ifwtech.co.uk>
Source record: 69050

Richard Clark wrote:
>On Tue, 11 Oct 2005 09:11:19 +0100, Ian White G/GM3SEK
><gm3sek@ifwtech.co.uk> wrote:
>
>>The subsequent conversion to VSWR is a mathematical relationship only.
>
>Hi Ian,
>
>This seems to be a particularly notable difference - to which
>absolutely NO ONE has ever deviated from in ANY determination of SWR!
>
>That is to say, this "mathematical" distinction that some rely on to
>differentiate their arguments has not got one scintilla of difference
>over any other method.
>
>The only way to claim you "directly" measure SWR is to find some way
>to place two probes of a meter along the line such that one probe goes
>into the trough and the other into the peak and the meter reads SWR
>directly. Unfortunately for rhetoric's sake, this STILL renders the
>determination in terms of a mathematical relationship. It cannot be
>escaped.

Thank you, you're right. The key difference between direct and indirect measurements is not about the need for mathematics; it's about the need for additional input from theory.

What I should have said is:

When you calculate the VSWR from measurements of maximum and minimum voltage on the line, that simple division formula comes directly from the definition of VSWR. The measurement is direct and completely self-contained, needing no further input from transmission-line theory.

But you cannot calculate VSWR from a single-point measurement of reflection coefficient unless without some additional input from transmission-line theory which connects them together. This dependence on additional theory is what makes the measurement an indirect one.

>
>Why this keeps on being revisited must be to allow the new lurkers to
>observe my correction.

Yes, by all means.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)

http://www.ifwtech.co.uk/g3sek

2154. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 20:15:31 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <BfKIqZGj1BTDFAvD@ifwtech.co.uk>
Source record: 69051

Reg Edwards wrote:
>
>
>Let this little anecdote be a friendly warning to they who use meters
>with a 0 to infinity SWR scale, or scaled in terms of forward and
>reverse power.

This lesson is easier to remember if your first transmitter had an anode current meter scaled in "Gallons Gone".

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2155. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 20:19:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dih6onfhi1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69052

"Cecil Moore" wrote
> Reg, I dug up some calculations from sci.physics.electromag
> from about a year ago that indicate one foot of 50 ohm coax
> on each side of the Bird is enough to make the line real,
> i.e. not imaginary, and that's a conservative estimate.

==========

Cec, you forgot to say sci.physics.electromag were working at 500 MHz and above. The one and only so-called SWR meter I have stops at 30 MHz. ;o)

Reg.

2156. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 20:38:35 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <dfAPKTILLCTDFAcw@ifwtech.co.uk>
Source record: 69053

Cecil Moore wrote:
>Ian White G/GM3SEK wrote:
>> All agreed. Along with the math that Cecil has retrieved and quoted
>>again, everything points towards the distance in question being a
>>function of coax diameter only; and not wavelength.
>
>Please forgive my previous senior moment.
>It was ~2% of a wavelength at 10 MHz for RG-213.
>It appears that one foot of coax on each side of
>a Bird wattmeter is enough to establish Z0 at
>50 ohms which forces Vfor/Ifor=Vref/Iref=50,
>the necessary Bird boundary conditions.

The Bird doesn't require any upstream and downstream boundary conditions. You can insert the instrument between any source impedance and any load impedance, and what it reports is entirely about the load impedance, unaffected by the source impedance.

However, it was scaled and calibrated assuming a 50 ohm system reference impedance, so in order to read correctly, it requires you to agree that your system reference impedance is 50 ohms too.

The element is trying to sample the voltage and current at a single point along the instrument's internal line. Because that line is physically quite long, it is built as an accurate 50-ohm line so that the instrument will cause minimal disturbance when inserted somewhere along a 50-ohm cable.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2157. Re: Cheap interface for your Icom

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 20:41:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dih817$8v8$1@engnntp2.cig.mot.com>
Source record: 69059

Fred,

It's been a while since I looked into the RS level converters. Another glance yields no serious shortcoming. The only thing I can see is that a lap-top with 5 volt serial voltages may have problems. However, if it works for you...
I roll my own with transistors.

73, Steve, K,9.D;C'I

"Fred W4JLE" <w4jle@w4jle.com> wrote in message news:fcb8$434586ec$97d558d8$29619@ALLTEL.NET...
> I wanted to use Ham Radio Deluxe with my Icom radio. It requires an CI-V
> interface. Being the cheapskate that I am, I checked the internet for "roll
> your own" information.
>
> What I found looked really familiar, turns out it is identical to an
> interface I built to program my Radio Shack Pro 95 scanner. Plugged it in
> and it worked just great.
>
> This means you can purchase a RadioShack 20-289 cable for $24.99 and replace
> the high dollar CI-V if you choose not to build your own.
>
>

2158. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 20:53:13 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <e5vnk1dng0l6dnh9vl0tkor3e0irop302n@4ax.com>
Source record: 69054

On Tue, 11 Oct 2005 16:57:51 GMT, Cecil Moore <mycall@arrl.net> wrote:

>****Quote****
>Newsgroups: sci.physics.electromag
>From: "Kevin G. Rhoads" <Kevin.Rho...@Dartmouth.edu>
>Date: Tue, 07 Oct 2003 12:49:14 -0400
>Subject: Re: Transmission Line Question
...
>So unless almost all the power diverts into an undesireable
>mode (by a factor of more than a million to one), one foot
>of cable should see pure TEM at the end.
>***End Quote***

But Cecil, nowhere in the analysis you quoted does it estimate how much power is diverted from the dominant mode at the discontinuity.

If the explanation of the discontinuity is that some power is converted from dominant propagation mode to another mode, and that those other modes are evanescent, it seems that this analysis of the impact of the discontinuity considers only estimating the decay rate of the evanescent modes without estimation of the relative magnitude of the power diverted to those modes in the first place.

Owen
--

2159. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:03:55 UTC
From: nm5k@wt.net
Message-ID: <1129064635.814589.146980@g49g2000cwa.googlegroups.com>
Source record: 69055

>A radio that needs 16A in operation, but 25 during tune is a
>pain in the butt on a nominal 20A power supply with over current
>protection that kicks in above 22A!

Myself, I never tune using full power. With my 706g, I either
put it on "AM", or reduce the drive to a pretty low level. I did the
same on my 730. Only with a good match would I ever test full
power output. I do the same with my tube TS-830.. heck, actually
any transmitter... :/
MK

2160. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:12:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <VUV2f.835$BZ5.146@newssvr13.news.prodigy.com>
Source record: 69056

Reg Edwards wrote:
> Let this little anecdote be a friendly warning to they who use meters
> with a 0 to infinity SWR scale, or scaled in terms of forward and
> reverse power.

If the scale were linearly calibrated for |rho| = 0 to 1,
would you still be objecting?

SWR = (1+|rho|)/(1-|rho|) for 0 <= |rho| <= 1

When SWR = infinity, it doesn't mean infinite current
through the meter. It just means that Vref = Vfor
where |Vref|/|Vfor| = |rho|. My Heathkit HM-15 allows
for full scale to equal Vfor. Then Vref is applied.
The scale is a linear indication for |rho|. The
corresponding SWR scale just follows the above equation.
--
73, Cecil http://www.qsl.net/w5dxp

2161. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:15:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <KXV2f.836$BZ5.163@newssvr13.news.prodigy.com>
Source record: 69057

Reg Edwards wrote:
> Cec, you forgot to say sci.physics.electromag were working at 500 MHz
> and above.

Not true, Reg. My question was specified using RG-213 at 10 MHz.
--
73, Cecil http://www.qsl.net/w5dxp

2162. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:25:53 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <B5W2f.837$BZ5.745@newssvr13.news.prodigy.com>
Source record: 69058

Ian White G/GM3SEK wrote:
> The Bird doesn't require any upstream and downstream boundary
> conditions.

When Bird requires a 50 ohm environment, they are requiring
50 ohm boundary conditions for the reading to be valid. If
you install the Bird in a 450 ohm environment on both sides
of the wattmeter, for instance, it will NOT read a valid forward
power and reflected power. In a matched-line 450 ohm environment
with absolutely zero reflected power, the Bird will indicate an
SWR of 9:1, a |rho| of 0.8 and a ratio of reflected power to
forward power of 0.64 even when the reflected power is zero.
--
73, Cecil http://www.qsl.net/w5dxp

2163. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:32:59 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dihb2b$b9h$1@engnntp2.cig.mot.com>
Source record: 69066

Owen,
You have obviously have extensive knowledge and familiarity with some equipment on this subject. I haven't studied this aspect of the radios I have yet, but offer the following from my design experience.

There are several relatively independent considerations which have been mentioned in this thread and I hope this clears up any confusion about which is doing what.

My understanding of the true purpose of (what we call) ALC is to prevent distortion in the final amplifier and the resulting "splatter" it causes, while allowing the maximum power out. As you so correctly point out, this originated in the linear amplifiers of old. Distortion at this point causes increased intermodulation (mixing) of the desired signal components and the resulting products appear out of the normal bandwidth = "splatter". There is always SOME of this going on, but as long as it is below about -30 dBc this is considered acceptable.
Because there is no Grid current to sense in solid state amplifiers, some other method of detecting the onset of distorting is required. Not knowing what _IS_ done, I can only speculate that knowing the highest level of output power which causes only a small, allowable increase in distortion, an output level detector can be designed which begins to provide feed back which cuts drive when this point is reached; thus paralleling the function of the grid current detection method of old. Because this is an instantaneous feedback system with a relatively high gain, the feed back voltage will exhibit a considerable rise as the device is driven closer and closer to the undesirable point. This must be what we are looking at that is called ALC on the front of the radio. As long as the level of this signal is within the manufacturer's limits, the distortion is limited to the specification and you are assured of the highest power with in-spec distortion.

With solid state comes other considerations which are actually separate from the distortion issue although from a circuitry standpoint they may seem identical. Because these devices have been and are still somewhat sensitive to mis-treatment and can be destroyed instantaneously, various methods are available to help save the devices. However, had they been easily available in tube days, they would have been equally applicable.

Sensing and placing a limit on collector/drain current is one method. Some load conditions can cause excessive current resulting in device destruction, so sensing over-current electronically and reducing drive can prevent this.

With the advent of simple reverse power sensing circuitry, another fault detection scheme can be used to reduce drive and protect the final power

device. Sensing SWR and reducing drive can prevent high device current and destruction, as well.

Heat rise can also destroy the device, so sensing device temp and reducing drive controls this also.

Because a design has one or more of these, the identity of each could be confused by combining the feedback signal and calling it only "ALC" when in actuality, there are two or more protection schemes present along with the (distortion limiting) ALC.

73, Steve, K'9;D.C,I

snipping quite a bit:

"Owen Duffy" <owen@no.where> wrote in message
news:o10jk19dgli473a21b098qotl1940t4rdf@4ax.com...
> On Sun, 9 Oct 2005 20:11:09 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >
> >"Owen Duffy" wrote various ways and means of automatically
> >controlling the power output of transmitters. Thanks very much.
> >
> >Presumably control is needed to limit the power dissipated ...
>
> Another method of PA protection is thermal protection of the PA...
>
> >
> >In my Icom 735 transceiver the first control requirement appears to be
> >met by by placing a limit on the DC collector current or power input.
>
> You are right, some radios do incorporate over-current protection ...
>
> Whilst probably intended for PA protection, it has the great benefit
> that the radio is less likely to draw excessive current while
> adjusting an ATU, ...
>
> As I described, and for example, from the IC706IIG service manual:
> "The reflected wave signal appears ...the antenna is mismatched. The
> ...signal level is detected ...and
> applied to the ALC circuit as the reference voltage." ....
>
> Owen
> --

2164. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:33:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <dbbok1h1g6u3t7d2irga45r12vg5as1sie@4ax.com>
Source record: 69061

On 11 Oct 2005 14:03:55 -0700, nm5k@wt.net wrote:

>>A radio that needs 16A in operation, but 25 during tune is a
>>pain in the butt on a nominal 20A power supply with over current
>>protection that kicks in above 22A!
>
>Myself, I never tune using full power. With my 706g, I either
>put it on "AM", or reduce the drive to a pretty low level. I did the
>same on my 730. Only with a good match would I ever test full
>power output. I do the same with my tube TS-830.. heck, actually
>any transmitter... :/

Quite wise.

Nevertheless, large currents are drawn by some radios in low power.

For example, I owned a Alinco DX70-TH and their EDX-2 autotuner. When it autotuned, the tx power was reduced to about 10W out, but it still drew in excess of 20A tuning into some loads on some frequencies... which would trip the overcurrent protection in one of my power supplies, so it was unusable on that power supply.

People do rough tune radios on full power, and I, like yourself, question the wisdom of that practice.

I designed a device to make manual low power tuning with an IC706x more convenient (http://www.vk1od.net/IC706TuneMate/IC706TuneMate.htm). It has been interesting that almost all of the feedback that I have received on the article is from screwdriver antenna users who insist that it is absolutely unecessary, they tune their screwdriver for maximum RF Po indication on the IC706x meter using full power in RTTY mode. (Achieving high RF Po indication depends indirectly on low VSWR because of the PA load protection scheme.)

Owen
--

2165. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:33:20 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <AcW2f.838$BZ5.534@newssvr13.news.prodigy.com>
Source record: 69060

Owen Duffy wrote:
> If the explanation of the discontinuity is that some power is
> converted from dominant propagation mode to another mode, and that
> those other modes are evanescent, it seems that this analysis of the
> impact of the discontinuity considers only estimating the decay rate
> of the evanescent modes without estimation of the relative magnitude
> of the power diverted to those modes in the first place.

I've always had a rule of thumb that 100 times the diameter of
the coax was enough length to 99% establish the TEM mode so
Kevin's explaination made sense to me.

Apparently, you are not satisfied with Kevin's explaination. Kevin
Rhodes email address is available on Google. The reason not to
publish it here is to avoid spaming his email account.
--
73, Cecil http://www.qsl.net/w5dxp

2166. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:34:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4eW2f.839$BZ5.587@newssvr13.news.prodigy.com>
Source record: 69062

nm5k@wt.net wrote:
> Myself, I never tune using full power.

Don't trust the foldback circuitry or just being polite?
--
73, Cecil http://www.qsl.net/w5dxp

2167. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:36:00 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <jtbok19u56jhi5761duk0des0cqt1rho3f@4ax.com>
Source record: 69063

On Tue, 11 Oct 2005 21:15:22 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Not true, Reg. My question was specified using RG-213 at 10 MHz.

True enough, but in the context of the question as to whether the Bird
43 reads sufficiently accurately, the transmission line on which one
is interested in the decay of the evanescent modes is the Bird
Thruline coupler section, not Rg-213 or any other cable that might be
attached to the Bird.

Owen
--

2168. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 21:53:24 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <v4cok1paar6fo8q77pv1s125anvofn6jf3@4ax.com>
Source record: 69064

On Tue, 11 Oct 2005 21:25:53 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Ian White G/GM3SEK wrote:
>> The Bird doesn't require any upstream and downstream boundary
>> conditions.
>
>When Bird requires a 50 ohm environment, they are requiring
>50 ohm boundary conditions for the reading to be valid. If
>you install the Bird in a 450 ohm environment on both sides
>of the wattmeter, for instance, it will NOT read a valid forward
>power and reflected power. In a matched-line 450 ohm environment
>with absolutely zero reflected power, the Bird will indicate an
>SWR of 9:1, a |rho| of 0.8 and a ratio of reflected power to
>forward power of 0.64 even when the reflected power is zero.

(I am assuming your 450 ohm line to be an unbalanced line, impractical
as that is, but the issues of balance to unbalanced transition are
just noise to the discussion.)

Is this about whether the Bird readings are correct for the conditions
on the Bird Thruline, or whether the meter readings are extensible to
the adjacent transmission line without further interpretation /
modelling?

The Bird readings should be correct for the conditions on the Bird
Thruline. You can safely extend those measurements literally to the
adjacent line where the adjacent line is the same as the Bird Thruline
and of negligible loss. In other cases, knowing the line parameters,
you may be able to use the measurements to some extent to calculating
some conditions on the other line.

Though the Bird readings in your example for Forward and Reflect Power
cannot be assumed valid for the adjacent line, the net power should be
correct.

I don't think anyone is suggesting that the Bird could be used in a
general sense to estimate the VSWR on your 450 ohm line.

Owen
--

2169. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 22:05:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6kdok15gb0r3ghnn4pdpq7m1o553hvposg@4ax.com>
Source record: 69065

On Tue, 11 Oct 2005 14:09:03 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I would then assume you disregard anything written in books as it falls in
>the same category.

Hi Fred,

Certainly anything that is third hand and name dropping - but you
already knew that from my previous posting.

73's
Richard Clark, KB7QHC

2170. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 22:14:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <epdok1psnb3h7ou088vcsd0c6476e3a2lf@4ax.com>
Source record: 69067

On Tue, 11 Oct 2005 17:45:51 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Exactly what did you find technically wrong with that third hand quote?
Why would I bother? It reveals any one of several many problems:
1. Incorrect reporting through poor transcription;
2. Presumed ascription of source;
3. No access to the original (as third hand offers no citations, or
if it did, it renders third hand reporting as immaterial);
4. No access to the presumed source of the third hand-off;
5. No access to the original (op. cit.) author;
6. Discussion does not attend the topic (and is of no interest to me,
nor others barring their continuing that line of inquiry - I won't
hold my breath for that);
7. Third hand-off reporting is the lame equivalent of celebrity news.

2171. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 22:15:22 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <SI88PUS6IDTDFANm@ifwtech.co.uk>
Source record: 69068

Cecil Moore wrote:
>Ian White G/GM3SEK wrote:
>> The Bird doesn't require any upstream and downstream boundary
>>conditions.
>
>When Bird requires a 50 ohm environment, they are requiring
>50 ohm boundary conditions for the reading to be valid.

No, they're not. They are requiring a 50-ohm system reference impedance.

What you call the "impedance environment" consists of physical things like the source impedance, line impedance and load impedance. You're confusing those with the system reference impedance, which something completely different.

System reference impedance is purely a matter of definition. The most common choice is 50 ohms... and by definition, that means 50 ohms exactly.

Having made that choice, then you obviously design and calibrate your instruments to give correct readings in an impedance environment that is as close to your chosen reference impedance as you can practically make it.

Your example shows the difference between impedance environment and reference impedance most clearly.

> If
>you install the Bird in a 450 ohm environment on both sides
>of the wattmeter, for instance, it will NOT read a valid forward
>power and reflected power. In a matched-line 450 ohm environment
>with absolutely zero reflected power, the Bird will indicate an
>SWR of 9:1, a |rho| of 0.8 and a ratio of reflected power to
>forward power of 0.64 even when the reflected power is zero.

You have changed the impedance environment to 450 ohms, and that's fine... but all of the Bird's readings are perfectly correct if the system reference impedance remains defined at 50 ohms. The reason why say they are incorrect is that you also changed your definition of system reference impedance to 450 ohms, without acknowledging that you did it.

It's like doing a financial calculation without mentioning that you switched into another base currency... darn right the results are not valid.

--
73 from Ian G/GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2172. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 22:46:36 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <fdfok11juirunt2ouc175efdsrohpm4ooe@4ax.com>
Source record: 69069

On Tue, 11 Oct 2005 16:32:59 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

> Because a design has one or more of these, the identity of each could be
>confused by combining the feedback signal and calling it only "ALC" when in
>actuality, there are two or more protection schemes present along with the
>(distortion limiting) ALC.

Yes Steve, once you have the gain control mechanism, it becomes the obvious control point for various over-x closed loop control systems. But you are right that the highest priority function is for limitation of distortion due to exessive signal (for the current conditions), and it is that loop that has the most onerous dynamic performance requirements (eg fast attack) for it to perform the intended fuction well.

Unfortunately, there is a growing common belief that unless the ALC meter is high upscale, then the rig isn't being talked up enough (the dumbing down of ham radio). There seems a common ignorance that most ALC detectors have a threshold (usually the rated PEP for solid state PAs), and that the slightest deflection of the indicator means that some peak signal has reached that threshold, further deflection causes greater gain reduction in the IF stages, causing the ALC to act more and more as a compressor where overdrive of the PA is likely to occur on transients during ALC attack time. Exceeding the red line, even for occasional transients, is to exceed the capability of the ALC to contain PA distortion due to overload. My thought is that if you want audio compression, use a speech processor, not the ALC.

Mentioning speech processors. A correctly adjusted speech processor is proably better protection against overdrive than depending on ALC alone. The peaks are contained (clipped) and the distortion products filtered off, before getting near the PA which does not have effective post filtering for clipping distorion.

Owen
--

2173. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 23:12:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pieok1lihge2m9lh57d0nentlcrk97lati@4ax.com>
Source record: 69070

On Tue, 11 Oct 2005 21:11:55 +0100, Ian White G/GM3SEK
<gm3sek@ifwtech.co.uk> wrote:

>Thank you, you're right. The key difference between direct and indirect
>measurements is not about the need for mathematics; it's about the need
>for additional input from theory.
>
>What I should have said is:

Hi Ian,

Remarkable touch of admission - especially to my over-arching method
of criticism.

Another point needs to be attended; the discussion of the measurement
of SWR seems quite, and absurdly, drawn in kindergarten terms of
mathematics as if the determination were king and the numbers simply
fell out be virtue of cranking the equation.

Nothing could be further from the truth.

As much as Reg pines away about what a SWR does not measure,
absolutely the same could be said for his unspoken inference that
probe measurement along a line does measure it.

True, probing the line reveals a pattern that in the mind conforms to
the expectation of standing waves, but this is simply trying to
measure your own shadow when each time you stretch out the rule your
shadow moves further out. What size is your shadow - when?

Using the formula everyone here leans upon as the archetypal equation
for SWR, and claiming they've measured at the appropriate points along
the line (undoubtedly only in their imagination) easily leads to
errors above 20%. Worse yet is that this same formula fails utterly
at the bench (am I embarrassing anyone?) for any but the most
pedestrian of SWRs which are easily resolved by a SWR meter in the
first place.

Beyond this issue of accuracy (certainly no one is interested in that
are they?) stands the fictions of requiring slightly more than a
quarterwave length, or access along the line to both the trough and
the peak. Anyone so hamstrung to NEED these criteria, hasn't ever
really faced the problem of measuring SWR on an open line in the first
place. The double-minima method offers an exceptional accuracy for
high SWRs and occupies a smaller region of line than otherwise
demanded. Measuring at the minima also reduces the error introduced
in the very act of measuring SWR.

To this last, how many here can guarantee their probes will approach the line with the same offset? There's a very good reason why SWR probes are mounted on vernier carriages. How many would recognize when the probes were too deep, or not deep enough to justify the measurement? To imagine any approaching the line with hand held leads raises the prospect of shooting marbles without thumbs.

As to these meters that everyone is rushing to use - Square Law or Linear? Don't know the difference? You don't know accuracy or how to obtain it when you have no choice. How do you render a Square Law detector linear? How do you linearize a Square Law detector measurement? No concern? You aren't measuring SWR then either. The method of measurement for low, medium, and high SWRs is not the same. One size does not fit all as the discussion in this group might imply (from that same lack of actually having done it). Even the math is different - and if any argue that this observation flies in the face of simple transmission line equations, then these casual tourists are comfortably remote from actually measuring the rough terrain of SWR.

However, none of this practicality is going to disturb the armchair SWR analyzer. It comes to their great fortune that one simple instrument will probably offer far more accuracy than they could ever obtain by trying to be literal about SWR "on the line."

73's
Richard Clark, KB7QHC

2174. EZNEC model of sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 23:15:51 UTC
From: David <groups@orbitcoms.com>
Message-ID: <HIX2f.15350$U51.14571@news-server.bigpond.net.au>
Source record: 69071

Thank you to whoever provided the coordinates for the model of this antenna.

I wrote them down and entered them when I saw them in your posting but the original email has been automatically removed from the folder in my email client.

There has been a lot of discussion and side issues raised from my original post but I am grateful for you taking the time to provide the information for me.

I am a novice with regard to antenna theory and have no previous experience with antenna modeling. Your post has given me a good starting point.
I entered the coordinates and (beside initially selecting wavelengths instead of inches) the model ran fine.
I was then able to scale it up to the frequency of interest (920 MHz) and now I am playing with the sleeve diameter, sleeve length and radiator length to observe how these are effecting radiation pattern and SWR.

There was also mention of a book regarding basic antenna modeling, my next step will be to purchase a good book to help me understand the process and limitations etc.

Thanks again

Regards

David Huisman

2175. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-11 23:31:07 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <siut13-vm9.ln1@p400bob.personal.cox.net>
Source record: 69073

Since Bruce hasnt responded

A cavity filter is a very narrow band filter usually of silvered copper pipe construction. At 160MHz its going to be about 18" long and maybe 3" dia. You might be able to get away with a helical filter instead. Thats a copper/silverplated coil inside a silvered/copper box. I'd suggest three coupled together if you were serious. They could then be in a (say) 4" x 2" x 2" box.

In this case the use is as a tuned TRF receiver connected direct to a RF measuring device. When you are close you simply watch the meter and walk towards where it gets stronger and away from where it is weaker!

I'll comment on your other post in a moment.

Cheers Bob

Jim wrote:
>
> I am not familiar with a "cavity filter". I'll do some Googling on that.
> Can you fill me in on it's use?

2176. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 00:00:29 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <u90u13-go9.ln1@p400bob.personal.cox.net>
Source record: 69072

Hi again Jim

I'd suspect you need an attenuator of maybe 60dB in 6dB steps! I cant see the 10dB variable one as being useful. Of course at 50dB or more coax leakage might be an issue!

The other researcher you mentioned most likely dropped to signal strength only mode when they got close. Antenna directivity up close in my view isnt a viable way of doing it. As a rough guide you get a 6dB change in signal power everytime you double or halve the distance. This means that if you maximum signal measured distance is maybe 6ft and it must work out to 2000 yards then you have to allow for 60dB of measurement range. This is further complicated by the turtle antenna being at ground level, in fact in the mud and dirt. I dont know what that loss represents but I'd add 30dB to be sure. Your whole system then must have some method of measuring over that range of 90 odd dB and have useful directional nulls etc doing so. This is where the big step attenuator and antenna changing/removal help.

Should the antenna work okay? I guess the question is did you include the ground in the modelling? Obviously you'd get some major sky direction lobes/response from ground reflection but the worry is how it affects overall directivity. My gut feel is that the F/B would be markedly different and nowhere near the 48dB. At 1M above ground there may be sufficient detuning of elements to widen the frontal lobe but I doubt it would be a huge excursion. Do you find the null is much sharper than the frontal lobe? The bottom line though is that in your application it isnt as critical as someone (like amateurs) trying for maximum performance. This means I should stop complaining!

Okay on the screening. Well as I mentioned the test is to plug a 50 ohm load in the antenna socket and see if it responds at a distance of say 5ft. If it doesnt then dont worry about screening. If it does it depends on how much and then whether things like coax leakage have to be factored in.

I'll stop ranting/waffling on now..!

Cheers Bob

Jim wrote:
> True, I haven't thought of everything, but I have done this:

2177. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 00:46:18 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <daiok19habd0eh7vr22aakrvoo4a6cd3vl@4ax.com>
Source record: 69074

On Tue, 11 Oct 2005 19:20:35 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>>>I did not notice that somebody had attempted what you suggest. I
>>>translated
>>>the coordinates into regular NEC2, and it does run. It appears to violate
>>>some NEC2 criteria, but not sure how critical the model is.
>>
>> Which criteria?
>
>This is from L. B. Cebik. "Basic Antenna Modeling: A Hands-On Tutorial",
>page 2-9 published by Nittany Scientific; "Among the most important
>conventions to adopt is to begin at one end of each antenna element and to
>proceed from that end to the other without changing directions in
>mid-stream". I have seen array pattern reversals when this is not followed.
>There will also be current discontinuities. To be honest, with such a high
>segmentation this will probably not effect the pattern of such a stucture,
>or for that matter the input impedance. Just for curiosity I will give it a
>try, and see if it makes much difference. Also, although it should not
>cause any problems, I would not have used a single segment for the source,
>just the end segment from the upper element.

With the exception of the sleeve wires, the model follows this
convention and a trial with different end-to-end connections for the
sleeve gives identical results.

If someone doubts that the sleeve is effective or the model of same is
invalid, as I said before, remove it and place a parallel resonant
trap at the top of the "coax" running from ground to the bottom of the
antenna. The results will be very (but not exactly) similar.

With a one amp source, there will be a current standing wave on the
"coax" with a peak amplitude of approximately 1/2 amp. Changing the
height above ground changes this dramatically and the angle of maximum
radiation above ground changes dramatically as well.

Those wanting to spend more time with it can try adding wires to each
end of the sleeve, tying the wires together; changing the length of
the sleeve and re-resonating the rod, and so forth.

Because the top of the sleeve is a multiwire junction I prefer to use
a separate wire to hold the source.

>
>>>Obviously I
>>>cannot use the "Minninec" ground, so have substituted an average S/M

>>>ground
>>>with the coax end about an inch above the ground. I had assumed the
>>>antenna
>>>was for HF, so it is probably impractically high, causing multiple lobing.
>>
>> The multiple lobes are what you should see and are exactly my point.
>
>I had assumed the antenna was to be used on HF, still comparing models with
>similar parameters will provide meaningful information.
>
>>>A free space model might provide more meaningful results.
>>
>> If you can operate your antennas in free space then they would be
>> meaningful.
>
>True, but the pattern is much simplified. Even so, in free space, I do see
>evidence of minor patter ripple. I have also read (Cebik again) where the
>Mininec ground can produce eroneous results.
>
>> If you can't/won't buy Roy's fine EZNEC program, then may I suggest
>> 4nec2 at zero cost or MultiNEC at nominal cost as alternatives to bare
>> NEC.
>
>I use Nittany Scientific's (www.nittany-scientific.com) NEC-Win Pro, which
>seems to be a fairly good implementation of NEC2. The program does contain
>simplified (spread sheet) data entry, but I prefer to enter in basic code,
>which is apparently not available in EZNEC.

Since I'm a long time client of Roy's and a beta tester for MultiNEC,
I use EZNEC with MultiNEC as a shell. I get the best of both worlds
and MultiNEC will also invoke Arie's fine program, which I use for the
neat full-color 3-D plotting. EZNEC keeps me honest with all of the
segment length checking, antenna viewing and other fine features.

MultiNEC offers full spreadsheet entry, and other features too
numerous to mention. It writes EZNEC input files just dandy. It will
do the same with your Nec-Win.

2178. Re: EZNEC model of sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 00:58:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o5kok19i0pfipqden4mjibplaj43on7vll@4ax.com>
Source record: 69075

On Tue, 11 Oct 2005 23:15:51 GMT, David <groups@orbitcoms.com> wrote:

>I was then able to scale it up to the frequency of interest (920 MHz)
>and now I am playing with the sleeve diameter, sleeve length and
>radiator length to observe how these are effecting radiation pattern and
>SWR.

Hi David,

Also take care to scale the conductor size too. At your intended
frequency, and to achieve parity with the 100MHz results, this is very
much demanded.

73's
Richard Clark, KB7QHC

2179. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 01:24:59 UTC
From: Dan Richardson <>
Message-ID: <m8pok1pm6r0c95b4bv65bssa7nht9vgurm@4ax.com>
Source record: 68926

On Tue, 11 Oct 2005 17:46:18 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>MultiNEC offers full spreadsheet entry, and other features too
>numerous to mention. It writes EZNEC input files just dandy. It will
>do the same with your Nec-Win.

Also Antenna Model and GNEC too!

Dan Maguire did one hell of job with that program!

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://users.adelphia.net/~k6mhe/

2180. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:03:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <y9_2f.15565$6e1.2838@newssvr14.news.prodigy.com>
Source record: 68927

Owen Duffy wrote:
> Cecil Moore <mycall@arrl.net> wrote:
>>Not true, Reg. My question was specified using RG-213 at 10 MHz.
>
> True enough, but in the context of the question as to whether the Bird
> 43 reads sufficiently accurately, the transmission line on which one
> is interested in the decay of the evanescent modes is the Bird
> Thruline coupler section, not Rg-213 or any other cable that might be
> attached to the Bird.

I didn't read it that way, Owen. IMO, the real question is:
What length of 50 ohm coax needs to be attached to the Bird
input and output to ensure that a 50 ohm environment is
present?
--
73, Cecil http://www.qsl.net/w5dxp

2181. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:04:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <8b_2f.15566$6e1.12775@newssvr14.news.prodigy.com>
Source record: 68928

Owen Duffy wrote:
> I don't think anyone is suggesting that the Bird could be used in a
> general sense to estimate the VSWR on your 450 ohm line.

I thought that was the subject of the discussion.
--
73, Cecil http://www.qsl.net/w5dxp

2182. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:06:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <yc_2f.15567$6e1.4152@newssvr14.news.prodigy.com>
Source record: 68929

Richard Clark wrote:
> Certainly anything that is third hand and name dropping - but you
> already knew that from my previous posting.

It's obvious that you cannot bring yourself to believe that e=mc^2.
--
73, Cecil http://www.qsl.net/w5dxp

2183. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:13:21 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <f7sok11jchskagpq9bkjpm7864sjhfg1ud@4ax.com>
Source record: 68930

On Wed, 12 Oct 2005 02:04:52 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> I don't think anyone is suggesting that the Bird could be used in a
>> general sense to estimate the VSWR on your 450 ohm line.
>
>I thought that was the subject of the discussion.

From an earlier post:

In the case of the Bird 43, I suggest that if had, say, at 1MHz, 75 ohm line and a 75 ohm load on the load side, that the V/I raio for the travelling waves in the region of the sampling element would be so close to 50 ohms as to not materially affect the accuracy of measurements on the 50 ohms coupler section, irrespective of the fact that the sampling element has only 0.02% of a wavelength of 50 ohm line on its load side.

(For avoidance of doubt, nothing in the foregoing is to imply the Bird 43 would be directly measuring or indicating the conditions on the 75 ohm line.)

Owen
--

2184. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:16:29 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1m_2f.15570$6e1.4509@newssvr14.news.prodigy.com>
Source record: 68931

Ian White G/GM3SEK wrote:

> You have changed the impedance environment to 450 ohms, and that's
> fine... but all of the Bird's readings are perfectly correct if the
> system reference impedance remains defined at 50 ohms.

I have changed the system reference impedance to 450 ohms. Assuming
a tube PA with a pi-net output, 50 ohms doesn't exist anywhere anymore.
The system reference impedance is no longer 50 ohms so the Bird wattmeter
is being abused and misused. You can do the same thing by using a DC
voltmeter on an RF voltage or by using a hammer on a screw. If you
want to know the SWR on 450 ohm line, use a 450 ohm SWR meter.
--
73, Cecil http://www.qsl.net/w5dxp

2185. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:25:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xu_2f.15634$6e1.3057@newssvr14.news.prodigy.com>
Source record: 68932

Owen Duffy wrote:
> In the case of the Bird 43, I suggest that if had, say, at 1MHz, 75
> ohm line and a 75 ohm load on the load side, that the V/I raio for the
> travelling waves in the region of the sampling element would be so
> close to 50 ohms as to not materially affect the accuracy of
> measurements on the 50 ohms coupler section, irrespective of the fact
> that the sampling element has only 0.02% of a wavelength of 50 ohm
> line on its load side.

If there is 75 ohm coax on the input of the Bird, the reflected
power reported by the Bird on the coax will be off by an infinite
percent. That's pretty inaccurate.
--
73, Cecil http://www.qsl.net/w5dxp

2186. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:28:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fjsok1t63b2eu2j87020ml6kg13lt9sn6t@4ax.com>
Source record: 68933

On Wed, 12 Oct 2005 02:06:22 GMT, Cecil Moore <mycall@arrl.net> wrote:
>It's obvious that you cannot bring yourself to believe that e=mc^2.
If "that is obvious" to you, then such are your problems of a third
hand education resulting in uncontrolled topic inflation.

2187. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:28:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t6tok1t0blkjcoajnbpqiveslnumtlhjkq@4ax.com>
Source record: 68934

On Wed, 12 Oct 2005 02:03:10 GMT, Cecil Moore <mycall@arrl.net> wrote:
>What length of 50 ohm coax needs to be attached to the Bird
>input and output to ensure that a 50 ohm environment is
>present?
None.

2188. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 02:41:33 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <6etok1pceIntp3bkj0hrqi0c3an2an2unv@4ax.com>
Source record: 68935

On Wed, 12 Oct 2005 02:25:33 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> In the case of the Bird 43, I suggest that if had, say, at 1MHz, 75
>> ohm line and a 75 ohm load on the load side, that the V/I raio for the
>> travelling waves in the region of the sampling element would be so
>> close to 50 ohms as to not materially affect the accuracy of
>> measurements on the 50 ohms coupler section, irrespective of the fact
>> that the sampling element has only 0.02% of a wavelength of 50 ohm
>> line on its load side.
>
>If there is 75 ohm coax on the input of the Bird, the reflected
>power reported by the Bird on the coax will be off by an infinite
>percent. That's pretty inaccurate.

The Bird does not measure or report the conditions on the coax, it
measures and reports the conditions in the immediate region of the
sampling element which is some 40mm inside the Thruline coupler
section.

Owen
--

2189. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 03:13:51 UTC
From: rckchp <rckchp@comcast.net>
Message-ID: <1129086831.223288.307380@g44g2000cwa.googlegroups.com>
Source record: 68936

Look here :
http://users.lmi.net/~ryoung/Sonerai/Aircraft_Aluminum_Sources.htm
Allan Butler wrote:
> Hello Everyone:
>
> I have tried all the local metal suppliers and several in the Chicago
> area to get 6061-T6 aluminum tubing from in very specific sizes.

2190. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 04:06:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PY%2f.474$dO2.337@newssvr29.news.prodigy.net>
Source record: 68937

Owen Duffy wrote:
> The Bird does not measure or report the conditions on the coax, it
> measures and reports the conditions in the immediate region of the
> sampling element which is some 40mm inside the Thruline coupler
> section.

I don't know what this argument is all about. Consider the
following:

XMTR---75 ohm coax---Bird---75 ohm load

Are you saying the Bird's placement will result in a reflection
coefficient of 0.2? I seriously doubt that is true.
--
73, Cecil http://www.qsl.net/w5dxp

2191. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 04:09:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1003f.475$dO2.207@newssvr29.news.prodigy.net>
Source record: 68938

rckchp wrote:
> Look here :
> http://users.lmi.net/~ryoung/Sonerai/Aircraft_Aluminum_Sources.htm

Heck, MFJ is even carrying Hy-gain Aluminum Tubing now
in 6' telescoping sections.
--
73, Cecil http://www.qsl.net/w5dxp

2192. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 04:11:02 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_434c7ca8@fidonet.org>
Source record: 68939

"Dave Piggin" bravely wrote to "All" (09 Oct 05 18:52:24)
--- on the heady topic of "Re: Aluminum tubing?"

DP> From: Dave Piggin <d.piggin@zetnet.co.uk>
DP> Xref: core-easynews rec.radio.amateur.antenna:218532

> Also, why do we say tube rather than valve?

DP> Because a tube allows a substance through it without restriction, a
DP> valve is a device for controlling such.
DP> Dave

Croutons de boeuf! They are all cathode ray tubes. Valve is from the
stupide French who couldn't translate tube properly and the Brits
then blindly adopted it.

A*s*i*m*o*v

... Goose Pester Blondo Yip Lives!

2193. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 04:33:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l74pk11i1slh8jjkeboisd057s4j5nvhqo@4ax.com>
Source record: 68940

On Wed, 12 Oct 2005 04:06:07 GMT, Cecil Moore <mycall@arrl.net> wrote:
> I seriously doubt that is true.
We are genuinely grateful that you don't list all the combinations and
permutations of those topics of invention you "seriously doubt" being
true...
... or false.

2194. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 04:50:51 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <id4pk1l3q01uc4p80mmhje48956pjm0824@4ax.com>
Source record: 68941

On Wed, 12 Oct 2005 04:06:07 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> The Bird does not measure or report the conditions on the coax, it
>> measures and reports the conditions in the immediate region of the
>> sampling element which is some 40mm inside the Thruline coupler
>> section.
>
>I don't know what this argument is all about. Consider the
>following:
>
>XMTR---75 ohm coax---Bird---75 ohm load
>
>Are you saying the Bird's placement will result in a reflection
>coefficient of 0.2? I seriously doubt that is true.

I don't have the equipment at hand to do that experiment, but I have done another experiment.

XMTR -- 2m of RG58 -- Bird43 -- 1.2m of RG213 Bird43 -- 20m RG6 (75 ohms) -- antenna.

1.2m of 50 ohm coax between the Birds is 4.2% of an electrical (wavelength.)

I have made measurements with only one 100W slug which is moved from instrument to instrument.

The tx was adjusted to 100W forward on the first instrument.

Both instruments read 100W forward.

Both instruments read 2W reflected.

When I swap the instruments around, I get the same results. It is only a simple test, but I am not convinced that measurements from one position are signficantly different to the other position, despite the transmission line "environment" being different.

I am not surprised that both instruments read similarly, despite the fact that one doesn't have any 50 ohm coax on the load side of itself, whereas the other one does.

Owen
--

2195. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 05:36:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Gh13f.1145$BZ5.901@newssvr13.news.prodigy.com>
Source record: 68942

Owen Duffy wrote:
> XMTR -- 2m of RG58 -- Bird43 -- 1.2m of RG213 Bird43 -- 20m RG6 (75 ohms) -- antenna.

I don't have any argument with your results. Try this instead.

XMTR -- 2m of RG58 -- Bird43 -- 1.2m of RG6 Bird 43 -- 20m RG6 -- antenna

The second Bird will NOT indicate the actual SWR on the RG6.
--
73, Cecil http://www.qsl.net/w5dxp

2196. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 06:05:19 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3h8pk1hvp80tv1mk0pe86b5jrjjlje15ak@4ax.com>
Source record: 68943

On Wed, 12 Oct 2005 05:36:38 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> XMTR -- 2m of RG58 -- Bird43 -- 1.2m of RG213 Bird43 -- 20m RG6 (75 ohms) -- antenna.
>
>I don't have any argument with your results. Try this instead.
>
>XMTR -- 2m of RG58 -- Bird43 -- 1.2m of RG6 Bird 43 -- 20m RG6 -- antenna
>

I won't waste the time, I can predict that they will most likely be
different. Transmission line theory tells me that the Z in the region
of each Bird will be different, and that will probably result in a
different indicated VSWR.

It is a sidetrack, just noise.

The measurements I reported were identical, although one Bird was
surrounded by 50 ohm line, and the other had 75 ohm line on one side
of it. The 75 ohm line did not cause a measureable difference in meter
readings in that simple trial.

Owen
--

2197. For Sale

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 07:27:21 UTC
From: Carl Domanico <vze2686b@verizon.net>
Message-ID: <tV23f.1856$KR1.1431@trndny06>
Source record: 68944

Hi I have for sale two Comet/NCG Meters :

1) NCG-3000 118 mHz-530 MHz SWR / Wattmeter 5-20-200 Watts
Bought New in Box for $ 110.00...Item is in mint condition.
Make offer

1) Comet CMX-3 140 mHz - 525 MHz SWR / Wattmeter 20-50-200 watt
Is remotable...Paid $ 170.00 New In Box Item is in Mint condition.
Make offer...

Thanks
Carl
N2MFW

2198. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 07:56:22 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <m4gpk1pavbgkvbjhc4hrs5i4hr3ht4rofd@4ax.com>
Source record: 68945

On Tue, 11 Oct 2005 01:21:01 GMT, Cecil Moore <mycall@arrl.net> wrotF:

>Hal Rosser wrote:
>> The elements for the 70 cm band are so small, they don'r interefere with the
>> 2m band
>
>But the opposite may not be true since 444/3=148.

L.B. Cebik has an article on a dual band quad. He uses element
placement to reduce interaction between the 2m and 70 cm elements.
< http://www.cebik.com/vhf/satq.html>

2199. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 11:56:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0S63f.534$dO2.380@newssvr29.news.prodigy.net>
Source record: 68946

Owen Duffy wrote:
> It is a sidetrack, just noise.

The main point of the discussion has been: An SWR meter
calibrated for Z0=50 ohms will not accurately report the
actual SWR on a line that is not Z0=50 ohms.

Of the four following configurations, in a lossless situation,
which one accurately reports the SWR on both sides of the SWR
meter?

1. XMTR---50 ohm coax---SWR meter---50 ohm coax---load

2. XMTR---50 ohm coax---SWR meter---75 ohm coax---load

3. XMTR---75 ohm coax---SWR meter---50 ohm coax---load

4. XMTR---75 ohm coax---SWR meter---75 ohm coax---load
--
73, Cecil http://www.qsl.net/w5dxp

2200. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 13:32:16 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Af83f.15844$S4.8019@edtnps84>
Source record: 68947

> With the exception of the sleeve wires, the model follows this
> convention and a trial with different end-to-end connections for the
> sleeve gives identical results.
>
> If someone doubts that the sleeve is effective or the model of same is
> invalid, as I said before, remove it and place a parallel resonant
> trap at the top of the "coax" running from ground to the bottom of the
> antenna. The results will be very (but not exactly) similar.
>
> With a one amp source, there will be a current standing wave on the
> "coax" with a peak amplitude of approximately 1/2 amp. Changing the
> height above ground changes this dramatically and the angle of maximum
> radiation above ground changes dramatically as well.
>
> Those wanting to spend more time with it can try adding wires to each
> end of the sleeve, tying the wires together; changing the length of
> the sleeve and re-resonating the rod, and so forth.
>
> Because the top of the sleeve is a multiwire junction I prefer to use
> a separate wire to hold the source.

Checking your lines of code more carefully, I see that they are all in the same direction, except for the small radials connecting the top of the sleeves. What I noticed is that the card sequence is not in order, which was why I was confused. Not sure how important this is.

What I have noticed is that similar structures (GP with depressed radials, for example) produce erroneous TRP results. It will be interesting to try such computations on variants of your sleeve antenna. My results did not show significant current on the outer shield of the coax. This may be due to my inability to implement the "Mininec" ground.

> Since I'm a long time client of Roy's and a beta tester for MultiNEC,
> I use EZNEC with MultiNEC as a shell. I get the best of both worlds
> and MultiNEC will also invoke Arie's fine program, which I use for the
> neat full-color 3-D plotting. EZNEC keeps me honest with all of the
> segment length checking, antenna viewing and other fine features.
>
> MultiNEC offers full spreadsheet entry, and other features too
> numerous to mention. It writes EZNEC input files just dandy. It will
> do the same with your Nec-Win.

Nec-Win Pro does have a Pseudo built-in NEC-Win Plus interface, which allows spread sheet entry, and it will also interface with Excel. I am not familiar with MultiNEC, or EZNEC, although I do have ARRL's EZNEC version,

but have never used it. I understand that EZNEC is an excellent program,
thought it does not support NEC code entry, or the S/M ground.

73,

Frank

2201. Re: EZNEC model of sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 13:35:55 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <%i83f.15845$S4.14328@edtnps84>
Source record: 68948

"David" <groups@orbitcoms.com> wrote in message
news:HIX2f.15350$U51.14571@news-server.bigpond.net.au...
> Thank you to whoever provided the coordinates for the model of this
> antenna.
>
> I wrote them down and entered them when I saw them in your posting but the
> original email has been automatically removed from the folder in my email
> client.
>
> There has been a lot of discussion and side issues raised from my original
> post but I am grateful for you taking the time to provide the information
> for me.
>
> I am a novice with regard to antenna theory and have no previous
> experience with antenna modeling. Your post has given me a good starting
> point.
> I entered the coordinates and (beside initially selecting wavelengths
> instead of inches) the model ran fine.
> I was then able to scale it up to the frequency of interest (920 MHz) and
> now I am playing with the sleeve diameter, sleeve length and radiator
> length to observe how these are effecting radiation pattern and SWR.
>
> There was also mention of a book regarding basic antenna modeling, my next
> step will be to purchase a good book to help me understand the process and
> limitations etc.
>
> Thanks again
>
> Regards
>
> David Huisman

I recommend Cebik's book from www.nittany-scientific.com. The ARRL modeling
course is probably similar, since Cebik was also involved in its
development.

Regards,

Frank

2202. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 13:39:25 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <hm83f.133870$qY1.14837@bgtnsc04-news.ops.worldnet.att.net>
Source record: 68949

Roger Conroy wrote:

[snip]

>>>>>>Why do you guys in the US always omit the "i" in aluminium ?
>>
>>
>>You mean the second "i"? Probably because we spell it correctly: Aluminum.
>>;~)
>
>
> But you do it ONLY to Alumin(i)um. What about Lithium, Barium, Chromium,
> Ruthenium, Titanium, Uranium, and so on......?

Hmmmm, does "so on" also include Lanthanum, Molybdenum, Platinum, and
Tantalum?

73,
Gene
W4SZ

2203. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 14:00:36 UTC
From: Guido Sarducci from NYC <guido@chaio_guido.net>
Message-ID: <434D1703.8FC61A36@chaio_guido.net>
Source record: 68950

Chaio !

I always use the terlit when I am at home
because at the malls they are not clean.

I also change the earl in my pickup truck.

2204. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 14:44:23 UTC
From: richardharrison@webtv.net
Message-ID: <1233-434D2147-25@storefull-3256.bay.webtv.net>
Source record: 68951

Mike M wrote:
"L.B. Cebik has an article on a dual band quad. He uses slement
placement to reduce interaction between the 2m and 70cm elements."

Sure. Mount the elements for one band at right angles to those for the
second band.

Best regards, Richard Harrison, KB5WZI

2205. Re: EZNEC model of sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 15:37:48 UTC
From: Dan Richardson <>
Message-ID: <gqaqk1tgkhos7o7j4lqi6iqejhhct46sfj@4ax.com>
Source record: 68952

On Wed, 12 Oct 2005 13:35:55 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>I recommend Cebik's book from www.nittany-scientific.com. The ARRL modeling
>course is probably similar, since Cebik was also involved in its
>development.
>

I have both. In my opinion, the ARRL's modeling course book would a
better choice for those starting out in modeling. That isn't meant
that is limited. Anyone who finishes the course should have an
excellent understand of modeling and able to knowledgeably make
complex models using programs such as EZNEC or NecWinPlus+.

Nittany's book would be a better choice for those who prefer using NEC
card input formats.

73,
Danny, K6MHE

2206. Re: EZNEC model of sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 15:59:12 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <kpa3f.15862$S4.7693@edtnps84>
Source record: 68953

<Dan Richardson> wrote in message
news:gqaqk1tgkhos7o7j4lqi6iqejhhct46sfj@4ax.com...
> On Wed, 12 Oct 2005 13:35:55 GMT, "Frank" <ve6cb@nospam.telus.net>
> wrote:
>
>>I recommend Cebik's book from www.nittany-scientific.com. The ARRL
>>modeling
>>course is probably similar, since Cebik was also involved in its
>>development.
>>
>
> I have both. In my opinion, the ARRL's modeling course book would a
> better choice for those starting out in modeling. That isn't meant
> that is limited. Anyone who finishes the course should have an
> excellent understand of modeling and able to knowledgeably make
> complex models using programs such as EZNEC or NecWinPlus+.
>
> Nittany's book would be a better choice for those who prefer using NEC
> card input formats.
>
> 73,
> Danny, K6MHE

Good point. I should have mentioned that the book deals almost exclusively
with NEC card input formats.

73,

Frank

2207. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 17:04:42 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <VtmdnQ2r5-Zk3NDeRVn-jQ@comcast.com>
Source record: 68954

<nm5k@wt.net> wrote in message
news:1129064635.814589.146980@g49g2000cwa.googlegroups.com...
> >A radio that needs 16A in operation, but 25 during tune is a
>>pain in the butt on a nominal 20A power supply with over current
>>protection that kicks in above 22A!
>
> Myself, I never tune using full power. With my 706g, I either
> put it on "AM", or reduce the drive to a pretty low level. I did the
> same on my 730. Only with a good match would I ever test full
> power output. I do the same with my tube TS-830.. heck, actually
> any transmitter... :/
> MK
>
I switch to CW, set the keyer for maximum speed, and send a string of dits,
On the Icom 756 you can do that with the microphone buttons.

Tam/WB2TT

2208. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 17:29:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dijhcdnou1@news.service.uci.edu>
Source record: 68955

Cecil Moore wrote:

> If there is 75 ohm coax on the input of the Bird, the reflected
> power reported by the Bird on the coax will be off by an infinite
> percent. That's pretty inaccurate.

Why wouldn't the meter correctly indicate the reflection resulting from
the mismatch between the 50 ohm wattmeter and the 75 ohm transmission line?

ac6xg

2209. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 18:24:23 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijkcn$2g6$1@engnntp2.cig.mot.com>
Source record: 68959

"Owen Duffy" <owen@no.where> wrote in message
news:fdfok11juirunt2ouc175efdsrohpm4ooe@4ax.com...
> On Tue, 11 Oct 2005 16:32:59 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> [clippers active...]

Owen,
Though this is not antenna talk...

Thanks for the confirmation of my half experience, half
judgment-based-on-knowledge based understanding.

> Unfortunately, there is a growing common belief that unless the ALC
> meter is high upscale, then the rig isn't being talked up enough (the
> dumbing down of ham radio). snip... My thought is that if you want
> audio compression, use a speech processor, not the ALC.

Interesting misconception. I'll remember this when I find that some
clarification is needed on ALC.
A good explanation "tool" is to say that the ALC "meter" deflection is an
indication of how much over drive you are trying to give due to too much
audio. I understand that it is an indication of the gain reduction being
applied to keep the PEP at the design max. If it is done correctly, it
should provide no compression effect at all.

> Mentioning speech processors. A correctly adjusted speech processor is
> proably better protection against overdrive than depending on ALC
> alone. The peaks are contained (clipped) and the distortion products
> filtered off, before getting near the PA which does not have effective
> post filtering for clipping distorion.
> Owen
> --

I'd be careful in saying it this way because it appears to connect the
compression concept with the over drive concept and they are independent
concepts. The purpose of ALC is to set the proper PEP level (highest, but
not "too much") and the purpose of compression is to improve "talk power /
intelligibility" by increasing the average envelope power (AEP ?) while NOT
changing the peak (improve peak-to-average-ratio of speech).

73, Steve, K,9.D;C'I

2210. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 18:34:35 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9elqk1p460cfvln542oulbi74eet2j908j@4ax.com>
Source record: 68956

On Wed, 12 Oct 2005 11:56:44 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> It is a sidetrack, just noise.
>
>The main point of the discussion has been: An SWR meter
>calibrated for Z0=50 ohms will not accurately report the
>actual SWR on a line that is not Z0=50 ohms.
>

No Cecil, the thread subject and the quote of your text in the first message of the post was the main point of discussion:

>The transmission line length must only be long enough such that
>the V/I ratio is forced to the Z0 value. According to some pretty
>smart guys I asked, that's about 2% of a wavelength.

It seems that the statement you have quoted is not born out in practice, though I note that you "seriously doubt that is true".

I have found out what I needed to know, thanks... Owen
--

2211. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 18:54:37 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <5b34$434d5c2e$97d558d8$9687@ALLTEL.NET>
Source record: 68957

Bill, how can you possibly believe (history aside) that the people from fractenna would do such a thing.

Especially since their warm wonderful personalities have enticed all knowledgeable amateurs to use nothing but fractal antennas.

"Bill" <k4wge@arrl.net> wrote in message news:1129120141.286151.251960@g47g2000cwa.googlegroups.com...
> Only post on usenet by "tennapro" from AOL. He jumps in to defend the
> fractenna faction and disappears. We've seen this before.
>

2212. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 19:31:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Nwd3f.783$D13.228@newssvr11.news.prodigy.com>
Source record: 68958

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> If there is 75 ohm coax on the input of the Bird, the reflected
>> power reported by the Bird on the coax will be off by an infinite
>> percent. That's pretty inaccurate.
>
> Why wouldn't the meter correctly indicate the reflection resulting from
> the mismatch between the 50 ohm wattmeter and the 75 ohm transmission line?

The question implies that the mismatch would cause appreciable
reflections. I have not witnessed that happening at HF but
perhaps others have. On MFJ meters, for instance, the one inch
wire through the ferrite toroid probably wouldn't cause an
appreciable mismatch.
--
73, Cecil http://www.qsl.net/w5dxp

2213. Data sheet for MTSD-V1 Stepper Motor Driver Board

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 19:40:58 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dijos8prf1@mailhub227.itcs.purdue.edu>
Source record: 68960

I am in the process of designing a remotely tuned capacitor for a loop antenna. I have just received from Digi-Key a Modern Technology MTSD-V1 Unipolar Stepper Motor Driver Board. Unfortunately, the packing box did not contain a data sheet describing how to use the board. Digi-Key's catalog lists the board's capabilities but does not give information on how to connect to the board. A Google on the board did not give me any links to a data sheet for the board.

Has anyone ever used this board, and would you be able to copy the data sheet and send it to me? You can contact me at john@xgotwalsx.com (remove the two 'x' letters from the domain name).

2214. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 19:46:50 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dijpefrca1@news.service.uci.edu>
Source record: 68963

Cecil Moore wrote:

> Jim Kelley wrote:
>
>>
>> Cecil Moore wrote:
>>
>>> If there is 75 ohm coax on the input of the Bird, the reflected
>>> power reported by the Bird on the coax will be off by an infinite
>>> percent. That's pretty inaccurate.
>>
>>
>> Why wouldn't the meter correctly indicate the reflection resulting
>> from the mismatch between the 50 ohm wattmeter and the 75 ohm
>> transmission line?
>
>
> The question implies that the mismatch would cause appreciable
> reflections. I have not witnessed that happening at HF but
> perhaps others have. On MFJ meters, for instance, the one inch
> wire through the ferrite toroid probably wouldn't cause an
> appreciable mismatch.

The Bird manual shows a section of 50 ohm transmission line. But even the N connectors are 50 ohms. I assume even one of those would show up on a TDR.

ac6xg

2215. Re: Data sheet for MTSD-V1 Stepper Motor Driver Board

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 19:50:36 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dijpe9$q5c$1@mailhub227.itcs.purdue.edu>
Source record: 68961

I am happy to report that Digi-Key customer service promptly emailed me a
7-page PDF file of the data sheet. My hat is off to Digi-Key and its
excellent customer service.
-- John, N9JG

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:dijos8prf1@mailhub227.itcs.purdue.edu...
>I am in the process of designing a remotely tuned capacitor for a loop
>antenna. I have just received from Digi-Key a Modern Technology MTSD-V1
>Unipolar Stepper Motor Driver Board. Unfortunately, the packing box did not
>contain a data sheet describing how to use the board. Digi-Key's catalog
>lists the board's capabilities but does not give information on how to
>connect to the board. A Google on the board did not give me any links to a
>data sheet for the board.
>
> Has anyone ever used this board, and would you be able to copy the data
> sheet and send it to me? You can contact me at john@xgotwalsx.com (remove
> the two 'x' letters from the domain name).
>

2216. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 19:52:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <sQd3f.754$q%.726@newssvr12.news.prodigy.com>
Source record: 68962

Owen Duffy wrote:
> No Cecil, the thread subject and the quote of your text in the first
> message of the post was the main point of discussion:

Yes, the thread subject was the main point. Z0's other than 50
ohms do not force the V/I ratio to 50 ohms (for matched lines)
and 2% of a 10 MHz WL of RG-213 is of a *sufficient* length to
force the V/I ratio to 50 ohms.

>>The transmission line length must only be long enough such that
>>the V/I ratio is forced to the Z0 value. According to some pretty
>>smart guys I asked, that's about 2% of a wavelength.

I've already apologized for my memory being faulty on that one.
If what you want are additional apologies, you've got it. I
hereby triple dog apologize for my faulty memory. The above
statement was incomplete and was therefore wrong. What more
do you want me to say about it? It was wrong, so of course,
it "is not born out in practice".

> It seems that the statement you have quoted is not born out in
> practice, though I note that you "seriously doubt that is true".

What I seriously doubted being true is that a 50 ohm Bird wattmeter
has a 0.2 reflection coefficient when placed in a 75 ohm feedline.
I just don't think that 40mm (1.5") is enough length to establish a
50 ohm environment inside the Bird. But I might be wrong on that one.
I know my Autek WM-1 doesn't cause appreciable reflections when
placed in a 75 ohm feedline.

I think, from the beginning, you have confused what Reg said with
what I said. I am basically on your side in the argument.

Additional Context
The question of a year ago was not what is the minimum length
required to force V/I to Z0 (although that can be had from Kevin's
posting quoted from s.p.e.) I was arguing with Reg over whether
the lengths of coax into and out of *my* SWR meter forces V/I to
be 50 ohms. I use two foot lengths of RG-400. (That's ~2% of a
wavelength at 10 MHz.) Two feet is a *sufficient* length to cause
V/I to equal Z0 (in a matched line). Two feet is not the *absolute
minimum* length but is instead a *sufficient* length and the length
I use in my shack.
--
73, Cecil http://www.qsl.net/w5dxp

2217. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:09:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijqi8$712$1@engnntp2.cig.mot.com>
Source record: 68969

Some good suggestions.

One caution with "nulling" antennas. You say "small transmitters", so I don't know how much of a factor the following is. Also, if you are using the typical wildlife chirping transmitters, my #2 may not be completely appropriate:
When close to the transmitter, RF can enter the receiver directly, via the coax or just the receiver itself. When in the antenna null, this "Blow-by" can exceed the level coming via the antenna and make the null antenna useless. Loops are pretty simple, and the cardiod loop is pretty much an optimum loop.
There are two relatively simple solutions. Any of the phase sensing methods can solve this problem. (the Doppler is another solution, but it's not simple).
You can also take two or more "nulling" readings at a comfortable distance (terrain permitting) to triangulate the position. I even have a loop for 2M and one for 440 (cute little 1" diameter).

One is an offset attenuator. Google on that & you'll see a simple but very effective device except it won't narrow up your beam pattern.
A better, though a little more complex is what is commonly called the "TDOA". This is a two antenna phase sensing system which, when well made, gives an indication which allows you to walk right up to the transmitting antennas until the target is actually be in between the two antennas. These can find the keyed 5W. hand held in a shoulder-to-shoulder line-up of people all holding one. The one I designed has an extra FET (not a bunch of ICs) and a center reading meter which gives a left-right indication, nice but not necessary. I don't remember if I have an electronic package on it though.

No "u's" in my address.

Good luck, & 73, Steve, K9DCI

"Jim" <jbasi@cfw.com> wrote in message
news:e2bd0$434aabe2$d80c3c80$26657@NAXS.COM...
> This isn't strictly a Ham question, but I hope you all can help me anyway.
>
> I am using small transmitters in the 166-167 mhz range in some Box Turtle
> research I am doing. My RDF antenna is a 3 element Yagi designed via
> Yagicad 4.1 which works pretty well. It has 48db front/back and about 90
> degrees beamwidth in the H pattern.
>
> This works well for initial locating......usually starting 1500 to 2000
feet
> from my transmitter, but the closer I get, the more inaccurate it becomes.
>

> What kind of antenna design could I switch to when I get to close range
that
> would have a narrower beam so I could pinpint my target? It would be nice
> to have something smaller than my 35" x 21" yagi for close in work, but
the
> beam width is the primary concern.
>
> Yagicad doesn't let me design solely on beam width (at least I haven't
> figured out how) so is there another way to go on this??
>
> Thanks
> Jim
>
>

2218. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:11:29 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijqlh$774$1@engnntp2.cig.mot.com>
Source record: 68970

<nospam@nouce.bellatlantic.net> wrote in message
news:judlk1psq9vm45ektnsjfis9ovu1fgav0r@4ax.com...
> On Tue, 11 Oct 2005 01:03:34 -0400, "Jim" <jbasi@cfw.com> wrote:
>
> ...>
> You already got two good suggestions from others. Here's a third.
> Build a MOXON square, less gain than yagi but if built right the MOXON
> has a very distinct readward null, you exploit the null. Another
> small advantage is it's smaller than a 2 element yagi for the same
> band.
>
> Allison
Look up the "Tape Measure Yagi" It is designed to have a null off the back,
but you'll have to adjust the center freq.
73, Steve, K,9.D.C'I
>
>
>

2219. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:12:56 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijqo8$78k$1@engnntp2.cig.mot.com>
Source record: 68968

Duncan, This is commonly called the TDOA to distinguish it from the 4-6
antenna Doppler systems.
73, K9DCI, Steve

"Duncan" <duncan.stives@gmail.com> wrote in message
news:1128970687.485157.40010@g44g2000cwa.googlegroups.com...
>
> Jim wrote:
> > This isn't strictly a Ham question, but I hope you all can help me
anyway.
> >
> > I am using small transmitters in the 166-167 mhz range in some Box
Turtle
> > research I am doing. My RDF antenna is a 3 element Yagi designed via
> > Yagicad 4.1 which works pretty well. It has 48db front/back and about
90
> > degrees beamwidth in the H pattern.
> >
> > This works well for initial locating......usually starting 1500 to 2000
feet
> > from my transmitter, but the closer I get, the more inaccurate it
becomes.
> >
> > What kind of antenna design could I switch to when I get to close range
that
> > would have a narrower beam so I could pinpint my target? It would be
nice
> > to have something smaller than my 35" x 21" yagi for close in work, but
the
> > beam width is the primary concern.
> >
> > Yagicad doesn't let me design solely on beam width (at least I haven't
> > figured out how) so is there another way to go on this??
> >
> > Thanks
> > Jim
>
>
> The doppler shift method mentioned by Dave has worked very well for me
> but it only gives you a chioce between 2 directions. If you know the
> kind of area your turtles are likely to be then it should work
> otherwise you can use iyt in conjunction with you yagi antenna to get a
> accurate direction. The doppler shift method (unlike directional
> antennas) is not affected by signal strength. This is because it works

> by using two small antennas and determining which one the radio wave
> hits first (this type of device usually generates a tone which
> dissapears when the wave hits both antennas at the same time). This
> tells you with a good degree of accuracy that the transmitter is in
> front of or behind you.
>

2220. FM antenna ambient temperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:14:09 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1129148048.982537.139070@o13g2000cwo.googlegroups.com>
Source record: 68964

Hi all, I'm curious.

If you have an FM transmitter setup to transmit 150W and you put a thermometer about 15ft away with the FM antenna directly pointed at it, will the thermometer reading change?

If so, is there some sort of introduction that deals with temperature change based on antenna radiation?

Thanks!

2221. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:14:42 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijqri$7ab$1@engnntp2.cig.mot.com>
Source record: 68971

I forgot about these. These are easier to make than the "cardioid loops".

K,9.D;C'I
"Dave" <noone@nowhere.com> wrote in message
news:vuidnQp82IrxXtfeRVn-3Q@crocker.com...
> actually... for some reason i didn't put it on that web page, but you can
> have a unidirectional null with that simple system. to do that you make
the
> antennas 1/4 wavelength apart and make one feed line 1/4 wave longer than
> the other. in this way you get a cardioid pattern since the only
direction
> that won't have a phase shift is when the signal gets to the antenna with
> the longer feedline first and the other one exactly 1/4 cycle later. just
> be sure to take the coax velocity factor into account.
>
> "Duncan" <duncan.stives@gmail.com> wrote in message
> news:1128970687.485157.40010@g44g2000cwa.googlegroups.com...
> >
> > Jim wrote:
> >> This isn't strictly a Ham question, but I hope you all can help me
> >> anyway.
> >>
> >> I am using small transmitters in the 166-167 mhz range in some Box
Turtle
> >> research I am doing. My RDF antenna is a 3 element Yagi designed via
> >> Yagicad 4.1 which works pretty well. It has 48db front/back and about
90
> >> degrees beamwidth in the H pattern.
> >>
> >> This works well for initial locating......usually starting 1500 to 2000
> >> feet
> >> from my transmitter, but the closer I get, the more inaccurate it
> >> becomes.
> >>
> >> What kind of antenna design could I switch to when I get to close range
> >> that
> >> would have a narrower beam so I could pinpint my target? It would be
> >> nice
> >> to have something smaller than my 35" x 21" yagi for close in work, but
> >> the
> >> beam width is the primary concern.
> >>
> >> Yagicad doesn't let me design solely on beam width (at least I haven't
> >> figured out how) so is there another way to go on this??

> >>
> >> Thanks
> >> Jim
> >
> >
> > The doppler shift method mentioned by Dave has worked very well for me
> > but it only gives you a chioce between 2 directions. If you know the
> > kind of area your turtles are likely to be then it should work
> > otherwise you can use iyt in conjunction with you yagi antenna to get a
> > accurate direction. The doppler shift method (unlike directional
> > antennas) is not affected by signal strength. This is because it works
> > by using two small antennas and determining which one the radio wave
> > hits first (this type of device usually generates a tone which
> > dissapears when the wave hits both antennas at the same time). This
> > tells you with a good degree of accuracy that the transmitter is in
> > front of or behind you.
> >
>
>

2222. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:20:22 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijr66$7k7$1@engnntp2.cig.mot.com>
Source record: 68974

"Bruce" <xxx@yyy.zzz> wrote in message
news:Xns96EBC33DC1298xxxyyyzzz@216.77.188.18...
> ...
>
> Now, if the receiver IS well shielded enough, if you can insert a
> switchable attenuator in the coax, you can reduce the signal strength
> significantly...and, FM receivers get very non-linear below about 20dB
> quieting, they quiet faster than the actual input. In otherwords, you
> could get 3-4 dB quieting change for 1dB of singal change. What this will
> do is make you antenna pattern SEEM narrower....> -Bruce

Two things here.

The "offset attenuator" gets you the equivalent to a shielded receiver
without the shielding and very simple construction.

There are designs on the web for "quieting meters" and I have even seen one
design where the receiver s-meter signal was summed with the quieting signal
resulting in one very large dynamic range signal strength indicator.
73, Steve, K,9.D;C'I

2223. Re: Anyone Have Plans for Dual Band Beam 2m/70cm?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:21:38 UTC
From: Phil <PBRADWAY@nycap.rr.com>
Message-ID: <mfe3f.35162$Xl2.20945@twister.nyroc.rr.com>
Source record: 68965

Try this link for ideas. http://www.cushcraft.com/support/pdf/a27010s.pdf

Phil, KB2HQ

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:1233-434D2147-25@storefull-3256.bay.webtv.net...
> Mike M wrote:
> "L.B. Cebik has an article on a dual band quad. He uses slement
> placement to reduce interaction between the 2m and 70cm elements."
>
> Sure. Mount the elements for one band at right angles to those for the
> second band.
>
> Best regards, Richard Harrison, KB5WZI
>

2224. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:25:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <oje3f.762$q%.696@newssvr12.news.prodigy.com>
Source record: 68966

Jim Kelley wrote:
> The Bird manual shows a section of 50 ohm transmission line. But even
> the N connectors are 50 ohms. I assume even one of those would show up
> on a TDR.

Probably would, but would it cause appreciable reflections?
I don't think it would have |rho|=(75-50)/(75+50)=0.2
when used with 75 ohm coax. Owen said something about 40mm.
I just don't think 40mm (1.5") is long enough to establish
a 50 ohm environment but I could be wrong. I've never owned
a Bird. I suspect |rho| would calculate out to be much less
than 0.2. And of course there would be two discontinuities,
one from 75 ohms to 50 ohms and one from 50 ohms back to 75
ohms. Given the short length between those two discontinuities,
one probably interferes with and tends to cancel the effects
of the other as would happen with a zero length of feedline.
--
73, Cecil http://www.qsl.net/w5dxp

2225. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:26:17 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijrh9$7pl$1@engnntp2.cig.mot.com>
Source record: 68973

"Jim" <jbasi@cfw.com> wrote in message
news:650c$434afc93$d80c392d$667@NAXS.COM...
> True, I haven't thought of everything, but I have done this:
>
> ... My
> transmitter antennas are horizontal trailing insulated wire.

I think talk about polarization is relatively meaningless with this.

I have a
> fairly long cable so am able to hold it at arm's length from my body. It
> does have a very good null and I use both front and null in my RDFing.

With a good rear nul, your presence in the rear should give minimal
effect.

>
> My radio might not be the best as far as sheilding.....it is plastic
cased.
> So I made a fiderglass holster for it with aluminum screen embedded in the
> fiberglass resin all the way around...kind of like a Faraday cage. I
don't
> really know how this helps. It is not grounded,

Ground is sort of meaningless at this point. Look up the "Offset
Attenuator".

73, Steve, K,9.D;C'I

2226. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:29:02 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijrme$7s8$1@engnntp2.cig.mot.com>
Source record: 68876

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:u90u13-go9.ln1@p400bob.personal.cox.net...
> Hi again Jim
>
> I'd suspect you need an attenuator of maybe 60dB in 6dB steps! I cant
> see the 10dB variable one as being useful. Of course at 50dB or more
> coax leakage might be an issue!

When you see the numbers for the Offset attenuator you won't believe them,
though true.

> Okay on the screening. Well as I mentioned the test is to plug a 50 ohm
> load in the antenna socket and see if it responds at a distance of say
> 5ft. If it doesnt then dont worry about screening. If it does it depends
> on how much and then whether things like coax leakage have to be
> factored in.

Good test.

73, Steve, K,9.D;C'I

2227. Re: FM antenna ambient temperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:30:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <2oe3f.763$q%.605@newssvr12.news.prodigy.com>
Source record: 68967

CD wrote:
> If you have an FM transmitter setup to transmit 150W and you put a
> thermometer about 15ft away with the FM antenna directly pointed at it,
> will the thermometer reading change?

If the thermometer has a 1/2WL column of mercury,
it certainly will. :-)
--
73, Cecil http://www.qsl.net/w5dxp

2228. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 20:37:17 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dijs5t$88i$1@engnntp2.cig.mot.com>
Source record: 68975

> Sorry I'm too tired to look up a better example, but
> http://members.aol.com/BmgEngInc/Adcock.html
> is still pretty good. It's essentially about like the
> "phased verticals" the other fellow mentioned, in that
> they both result in a "cardioid" pattern, i.e. a sharp
> *notch* in the pattern, broadside to the array in this
> case.

Thanks, Sluggo, but this is partly an oops!

The BMG pages are a very good resource (as are many RDF sites).

OOPS! The Adcock is just like a loop -- two nulls off both broadside faces.
The version that looks similar (previously mentioned) where you have two
vertical dipoles spaced 1/4 wave and a 3/4 wave connecting cross-feed line
gives the cardioid -- one null.

"Sluggo" <luser@AOL.com> wrote in message
news:h3dmk1p0od57ig3q5qpm1qgq5gkdtdq3lm

73, Steve, K,9.D;C'I

2229. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 21:04:04 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <6itqk1h878ujh8v7h0e3tfslj6apsfk779@4ax.com>
Source record: 68972

On Wed, 12 Oct 2005 13:32:16 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:
[snip]
>
>Checking your lines of code more carefully, I see that they are all in the
>same direction, except for the small radials connecting the top of the
>sleeves. What I noticed is that the card sequence is not in order, which
>was why I was confused. Not sure how important this is.

I don't see how the wires are numbered can be important; it's how they
connect, isn't it?

My rational for always (almost always) using wire 1 to hold the source
is that them I can add or subtract wires without having to change the
source wire designation.
>
>What I have noticed is that similar structures (GP with depressed radials,
>for example) produce erroneous TRP results.

Please explain "TRP".

> It will be interesting to try
>such computations on variants of your sleeve antenna. My results did not
>show significant current on the outer shield of the coax. This may be due
>to my inability to implement the "Mininec" ground.

Run it without any ground. Run it without any sleeve. Just put a
trap (or a high value resistor) at one end of a center-fed halfwave
vertical to represent the sleeve (choke) and then add various lengths
of wire on the other side of the trap. With no ground, the current on
the added wire will peak at multiples of 1/4 wavelength. So much for
the trap "isolating" the rest of the antenna.

>
>> Since I'm a long time client of Roy's and a beta tester for MultiNEC,
>> I use EZNEC with MultiNEC as a shell. I get the best of both worlds
>> and MultiNEC will also invoke Arie's fine program, which I use for the
>> neat full-color 3-D plotting. EZNEC keeps me honest with all of the
>> segment length checking, antenna viewing and other fine features.
>>
>> MultiNEC offers full spreadsheet entry, and other features too
>> numerous to mention. It writes EZNEC input files just dandy. It will
>> do the same with your Nec-Win.
>
>Nec-Win Pro does have a Pseudo built-in NEC-Win Plus interface, which allows
>spread sheet entry, and it will also interface with Excel. I am not

>familiar with MultiNEC, or EZNEC, although I do have ARRL's EZNEC version,
>but have never used it. I understand that EZNEC is an excellent program,
>thought it does not support NEC code entry, or the S/M ground.

I don't know what "S/M" ground is, but EZNEC supports perfect ground,
Sommerfeld-Norton and MiniNEC grounds. And I believe the object is to
not have to input files as NEC code.:-)

2230. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 21:11:41 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dijuesgd1@news.service.uci.edu>
Source record: 68877

Cecil Moore wrote:
> Jim Kelley wrote:
>
>> The Bird manual shows a section of 50 ohm transmission line. But even
>> the N connectors are 50 ohms. I assume even one of those would show
>> up on a TDR.
>
>
> Probably would, but would it cause appreciable reflections?
> I don't think it would have |rho|=(75-50)/(75+50)=0.2
> when used with 75 ohm coax. Owen said something about 40mm.
> I just don't think 40mm (1.5") is long enough to establish
> a 50 ohm environment but I could be wrong. I've never owned
> a Bird. I suspect |rho| would calculate out to be much less
> than 0.2. And of course there would be two discontinuities,
> one from 75 ohms to 50 ohms and one from 50 ohms back to 75
> ohms. Given the short length between those two discontinuities,
> one probably interferes with and tends to cancel the effects
> of the other as would happen with a zero length of feedline.

Ummm, I don't know, Cecil......sounds a little fishy to me.

ac6xg

2231. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 21:22:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <w8f3f.642$dO2.501@newssvr29.news.prodigy.net>
Source record: 68878

Wes Stewart wrote:
> I don't know what "S/M" ground is, ...

Sado/Masochistic? :-)
--
73, Cecil http://www.qsl.net/w5dxp

2232. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 21:30:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7gf3f.644$dO2.96@newssvr29.news.prodigy.net>
Source record: 68879

Jim Kelley wrote:
> Ummm, I don't know, Cecil......sounds a little fishy to me.

Let's say you had a one inch piece of 50 ohm coax in the
middle of a longer piece of 75 ohm coax. I'll bet the
reflections from one discontinuity would virtually
cancel the reflections from the other discontinuity.
After all, the math should work if the length of the
50 ohm piece is zero, or 1/2WL, or 1WL, or ...

In fact, a one inch piece of 50 ohm coax should cause
the same steady-state interference conditions as a (one
inch plus one wavelength) piece of 50 ohm coax. Don't
you agree?
--
73, Cecil http://www.qsl.net/w5dxp

2233. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 21:38:22 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dik01h$19v$1@news.service.uci.edu>
Source record: 68880

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Ummm, I don't know, Cecil......sounds a little fishy to me.
>
>
> Let's say you had a one inch piece of 50 ohm coax in the
> middle of a longer piece of 75 ohm coax. I'll bet the
> reflections from one discontinuity would virtually
> cancel the reflections from the other discontinuity.
> After all, the math should work if the length of the
> 50 ohm piece is zero, or 1/2WL, or 1WL, or ...
>
> In fact, a one inch piece of 50 ohm coax should cause
> the same steady-state interference conditions as a (one
> inch plus one wavelength) piece of 50 ohm coax. Don't
> you agree?

So basically you want me to agree that it's ok to use 75 ohm connectors in a 50 ohm system - as long as you use two of them separated by 0, 1/2, or 1 (etc) wavelength. Could be true, I suppose. Still, I'd rather you tried it out on your radio first. :-)

ac6xg

2234. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 21:52:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <NAf3f.650$dO2.281@newssvr29.news.prodigy.net>
Source record: 68881

Jim Kelley wrote:
> So basically you want me to agree that it's ok to use 75 ohm connectors
> in a 50 ohm system ...

Heck, you probably already use PL-239's. :-)
--
73, Cecil http://www.qsl.net/w5dxp

2235. Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 22:09:51 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <440rk1pg559akgta2q4d38s4le3noihnp8@4ax.com>
Source record: 68882

The myth: Measurements with a Bird 43 of the conditions on the Thruline section are invalid unless it has some minimum length of 50 ohm line on both sides of itself.

I have performed a test using components at hand where the Bird 43 has 75 ohm line on both sides of itself, and the test configuration is designed to present a 50+j0 ohm load at the point where the Bird 43 sampling element is located. The question is, how does the Bird respond?

The test in detail. Each component is in a list from the source to the load:

IC706IIG
1m RG58 with UHF connectors
MFJ949E ATU
3m RG6 (Zo=75 ohm) with BNC connectors
Bird 43
5.27m Belden 9275 (Zo=75 ohm, vf=0.83) with BNC connectors
50 ohm dummy load

Short adapters were used to connect to the Bird's Type N connectors, the dummy load's Type N connectors and the MFJ949 UHF connector.

The half wave resonance of the 5.27m length of RG6 was determined by s/c one end and connecting the other end via an adapter to a MFJ259B and finding the impedance dip at 23.05MHz. The calculated vf from this test is 0.81, which reconciles reasonably with the specs. Free space wavelenght at the test frequency is 13m.

The transmitter was set to 23.05MHz, and the ATU tuned to develop rated power output. The ATU is only used to present the rated load to the transmitter so as to obtain 100W for the test, to suit the Bird 43 element. It is inconsequential to the DUT (the Bird 43).

With this configuration, it is expected that the impedance at the Bird 43 is approximately 50+j0, and that there would be almost zero reflected power.

The Bird 43 indicated 100W forward power and a quarter of a needle width detection on reflected power.

The Bird 43 would appear to provide valid readings for the conditions on the Bird 43 Thruline section in this case, notwithstanding that there is not any 50 ohm transmission line attached to the Bird 43 + N-BNC adapters.

The myth that measurements with a Bird 43 of the conditions on the Thruline section are invalid unless it has some minimum length of 50 ohm line on both sides of itself is BUSTED.

Has anyone experimental evidence to the contrary?

Owen

PS: I hasten to add / apologise, I do not watch much television, but I was forced to endure Mythbusters when visiting a friend recently. It's about as scientific as what goes on here, so I thought the style appropriate!
--

2236. Re: FM antenna ambient temperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 22:20:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <bb584$434d8c7a$97d558d8$6832@ALLTEL.NET>
Source record: 68883

But once it heats, it will no longer be a half wave. What then?

"Cecil Moore" <mycall@arrl.net> wrote in message
news:2oe3f.763$q%.605@newssvr12.news.prodigy.com...
> CD wrote:
> > If you have an FM transmitter setup to transmit 150W and you put a
> > thermometer about 15ft away with the FM antenna directly pointed at it,
> > will the thermometer reading change?
>
> If the thermometer has a 1/2WL column of mercury,
> it certainly will. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

2237. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 22:38:11 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dik3ij$2ur$1@news.service.uci.edu>
Source record: 68885

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> So basically you want me to agree that it's ok to use 75 ohm
>> connectors in a 50 ohm system ...
>
>
> Heck, you probably already use PL-239's. :-)

When I use them, they're effectively 50 ohm connectors. What are they when you use them, Cecil? :-)

ac6xg

2238. Re: FM antenna ambient temperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 22:45:10 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndkr4fl.19u.bit-bucket@shell.config.com>
Source record: 68884

On Wed, 12 Oct 2005 18:20:26 -0400, Fred W4JLE wrote:
> "Cecil Moore" <mycall@arrl.net> wrote:
>> CD wrote:
>> > If you have an FM transmitter setup to transmit 150W and you put a
>> > thermometer about 15ft away with the FM antenna directly pointed at it,
>> > will the thermometer reading change?
>>
>> If the thermometer has a 1/2WL column of mercury,
>> it certainly will. :-)
>
> But once it heats, it will no longer be a half wave. What then?

Thermal Modulation.

2239. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 23:13:24 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dik5l7$3ra$1@news.service.uci.edu>
Source record: 68886

Owen Duffy wrote:

> The myth: Measurements with a Bird 43 of the conditions on the
> Thruline section are invalid unless it has some minimum length of 50
> ohm line on both sides of itself.
>
> I have performed a test using components at hand where the Bird 43 has
> 75 ohm line on both sides of itself, and the test configuration is
> designed to present a 50+j0 ohm load at the point where the Bird 43
> sampling element is located. The question is, how does the Bird
> respond?
>
> The test in detail. Each component is in a list from the source to the
> load:
>
> IC706IIG
> 1m RG58 with UHF connectors
> MFJ949E ATU
> 3m RG6 (Zo=75 ohm) with BNC connectors
> Bird 43
> 5.27m Belden 9275 (Zo=75 ohm, vf=0.83) with BNC connectors
> 50 ohm dummy load
>
> Short adapters were used to connect to the Bird's Type N connectors,
> the dummy load's Type N connectors and the MFJ949 UHF connector.
>
> The half wave resonance of the 5.27m length of RG6 was determined by
> s/c one end and connecting the other end via an adapter to a MFJ259B
> and finding the impedance dip at 23.05MHz. The calculated vf from this
> test is 0.81, which reconciles reasonably with the specs. Free space
> wavelenght at the test frequency is 13m.
>
> The transmitter was set to 23.05MHz, and the ATU tuned to develop
> rated power output. The ATU is only used to present the rated load to
> the transmitter so as to obtain 100W for the test, to suit the Bird 43
> element. It is inconsequential to the DUT (the Bird 43).
>
> With this configuration, it is expected that the impedance at the Bird
> 43 is approximately 50+j0, and that there would be almost zero
> reflected power.
>
> The Bird 43 indicated 100W forward power and a quarter of a needle
> width detection on reflected power.
>

> The Bird 43 would appear to provide valid readings for the conditions
> on the Bird 43 Thruline section in this case, notwithstanding that
> there is not any 50 ohm transmission line attached to the Bird 43 +
> N-BNC adapters.
>
> The myth that measurements with a Bird 43 of the conditions on the
> Thruline section are invalid unless it has some minimum length of 50
> ohm line on both sides of itself is BUSTED.
>
> Has anyone experimental evidence to the contrary?
>
> Owen

What made you decide to use 23.05 MHz and 5.27 meters of .81 VF feedline?

ac6xg

2240. help with EZNEC and a parasitic vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 23:27:24 UTC
From: Rob Brown <kb8wws@gmail.com>
Message-ID: <1129159644.819777.288970@g44g2000cwa.googlegroups.com>
Source record: 68888

Hello All,
I looked through the past threads about an antenna article that
has appeared twice in QST. The last article appeared in 1995 and was
authored by Robert Wilson, AL7KK. I'm thinking of building this type
of antenna, but wanted to change the element diameter from 1" to 1/2".
I tried to use EZNEC, but I'm having trouble setting the parameters for
the antenna correctly. Could one of the folks out there with more
knowledge of the program than I help me see what the change in diameter
will do to the antenna characteristics?

2241. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 23:28:22 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <007rk194l9s3mnme1cddjuh8naeuu7dpju@4ax.com>
Source record: 68889

On Wed, 12 Oct 2005 16:13:24 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>
>
>Owen Duffy wrote:
>
>> The myth: Measurements with a Bird 43 of the conditions on the
>> Thruline section are invalid unless it has some minimum length of 50
>> ohm line on both sides of itself.
>>
>> I have performed a test using components at hand where the Bird 43 has
>> 75 ohm line on both sides of itself, and the test configuration is
>> designed to present a 50+j0 ohm load at the point where the Bird 43
>> sampling element is located. The question is, how does the Bird
>> respond?
>>
>> The test in detail. Each component is in a list from the source to the
>> load:
>>
>> IC706IIG
>> 1m RG58 with UHF connectors
>> MFJ949E ATU
>> 3m RG6 (Zo=75 ohm) with BNC connectors
>> Bird 43
>> 5.27m Belden 9275 (Zo=75 ohm, vf=0.83) with BNC connectors
>> 50 ohm dummy load
>>
>> Short adapters were used to connect to the Bird's Type N connectors,
>> the dummy load's Type N connectors and the MFJ949 UHF connector.
>>
>> The half wave resonance of the 5.27m length of RG6 was determined by
>> s/c one end and connecting the other end via an adapter to a MFJ259B
>> and finding the impedance dip at 23.05MHz. The calculated vf from this
>> test is 0.81, which reconciles reasonably with the specs. Free space
>> wavelenght at the test frequency is 13m.
>>
>> The transmitter was set to 23.05MHz, and the ATU tuned to develop
>> rated power output. The ATU is only used to present the rated load to
>> the transmitter so as to obtain 100W for the test, to suit the Bird 43
>> element. It is inconsequential to the DUT (the Bird 43).
>>
>> With this configuration, it is expected that the impedance at the Bird
>> 43 is approximately 50+j0, and that there would be almost zero

>> reflected power.
>>
>> The Bird 43 indicated 100W forward power and a quarter of a needle
>> width detection on reflected power.
>>
>> The Bird 43 would appear to provide valid readings for the conditions
>> on the Bird 43 Thruline section in this case, notwithstanding that
>> there is not any 50 ohm transmission line attached to the Bird 43 +
>> N-BNC adapters.
>>
>> The myth that measurements with a Bird 43 of the conditions on the
>> Thruline section are invalid unless it has some minimum length of 50
>> ohm line on both sides of itself is BUSTED.
>>
>> Has anyone experimental evidence to the contrary?
>>
>> Owen
>
>What made you decide to use 23.05 MHz and 5.27 meters of .81 VF feedline?
>

>> I have performed a test using components at hand where the Bird 43 has

>ac6xg
--

2242. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-12 23:50:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <qjh3f.841$D13.836@newssvr11.news.prodigy.com>
Source record: 68887

Jim Kelley wrote:
> When I use them, they're effectively 50 ohm connectors. What are they
> when you use them, Cecil? :-)

PL-259's are notorious for not being 50 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

2243. Any experience using a Wonderpole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 00:13:19 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <h56dneQ3QPo8O9DeRVn-vQ@speakeasy.net>
Source record: 68890

I was seriously thinking of plunking down the $250 plus for the 40-foot Wonderpole (www.wonderpole.com) to support parallel dipoles (probably 14 gauge stranded copper wire dipoles cut for 80, 40, and 20 meters), fed with 600 ohm open wire, but I am concerned about:

1.. Is the pole strong enough to hold up 80, 40, and 20 meter dipoles, especially the top section?
2.. Do they, like most pushup fiberglass antenna, collapse or come loose over time?
3.. How do they stand up over time.I'd like to use it in a permanent installation.
4.. Do they need to be guyed (how badly do they flop around in 15-30 mph wind)?
5.. How much overlap do you leave between the sections for extra strength?
6.. Are they a good company to deal with?
I am thinking about mounting it on top of my 45 foot light-weight steel crank-up tower (no beam on it) to get my dipoles up 80 feet or so.

I called the company in Oregon (I believe), and they didn't know how it would work in such an application and the guy who is the mechanical expert never returned my call.

If anyone has any ACTUAL experience using a 40-foot wonderpole you could share with me, it would be much appreciated.

BTW, the reason for the multiple wires is to broaden the narrow pattern a single 80 meter dipole would exhibit on on the higher frequency bands (20-10 meters). But if it won't support it, I'll probably go with a single 80 meter dipole for now.

Thanks, and 73,

Greg, N6GK

2244. Re: How to model on EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 00:42:37 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <14i3f.10202$y_1.6441@edtnps89>
Source record: 68891

> I don't see how the wires are numbered can be important; it's how they
> connect, isn't it?

You are probably right

> My rational for always (almost always) using wire 1 to hold the source
> is that them I can add or subtract wires without having to change the
> source wire designation.

Good point.

>>What I have noticed is that similar structures (GP with depressed radials,
>>for example) produce erroneous TRP results.
>
> Please explain "TRP".

"Total Radiated Power"

>> It will be interesting to try
>>such computations on variants of your sleeve antenna. My results did not
>>show significant current on the outer shield of the coax. This may be due
>>to my inability to implement the "Mininec" ground.
>
> Run it without any ground. Run it without any sleeve. Just put a
> trap (or a high value resistor) at one end of a center-fed halfwave
> vertical to represent the sleeve (choke) and then add various lengths
> of wire on the other side of the trap. With no ground, the current on
> the added wire will peak at multiples of 1/4 wavelength. So much for
> the trap "isolating" the rest of the antenna.

Ok.

> I don't know what "S/M" ground is --

Oops, did I say S/M? What I meant was S/N (Sommerfeld/Norton).

-- but EZNEC supports perfect ground,
> Sommerfeld-Norton and MiniNEC grounds. And I believe the object is to
> *not* have to input files as NEC code.:-)

Ok, but I like to type it in cold, so see if I can get the cards in the
right order.

Frank

2245. Re: FM antenna ambient temperature

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 00:55:58 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <_56dnRWTjo9ILdDeRVn-sw@comcast.com>
Source record: 68892

A serious reply ... YES!

From Physics, temperature rise occurs when an object absorbs energy.
Now the construction of your thermometer will determine how much of a
temperature rise.

Glass bulb Mercury is one problem; glass bulb alcohol is a different
problem; coiled spring of dissimilar metals is another problem; etc.

The temperature will rise in all of them. The question is: "How much?" I
doubt it would be observed in ordinary household thermometers.

Now, put it in a microwave oven ....

CD wrote:
> Hi all, I'm curious.
>
> If you have an FM transmitter setup to transmit 150W and you put a
> thermometer about 15ft away with the FM antenna directly pointed at it,
> will the thermometer reading change?
>
> If so, is there some sort of introduction that deals with temperature
> change based on antenna radiation?
>
>
> Thanks!
>

2246. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 01:43:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <oZi3f.706$tV6.140@newssvr27.news.prodigy.net>
Source record: 68893

Owen Duffy wrote:

> The myth: Measurements with a Bird 43 of the conditions on the
> Thruline section are invalid unless it has some minimum length of 50
> ohm line on both sides of itself.
>
> I have performed a test using components at hand where the Bird 43 has
> 75 ohm line on both sides of itself, and the test configuration is
> designed to present a 50+j0 ohm load at the point where the Bird 43
> sampling element is located. The question is, how does the Bird
> respond?
>
> The test in detail. Each component is in a list from the source to the
> load:
>
> IC706IIG
> 1m RG58 with UHF connectors
> MFJ949E ATU
> 3m RG6 (Zo=75 ohm) with BNC connectors
> Bird 43
> 5.27m Belden 9275 (Zo=75 ohm, vf=0.83) with BNC connectors
> 50 ohm dummy load
>
> Short adapters were used to connect to the Bird's Type N connectors,
> the dummy load's Type N connectors and the MFJ949 UHF connector.
>
> The half wave resonance of the 5.27m length of RG6 was determined by
> s/c one end and connecting the other end via an adapter to a MFJ259B
> and finding the impedance dip at 23.05MHz. The calculated vf from this
> test is 0.81, which reconciles reasonably with the specs. Free space
> wavelenght at the test frequency is 13m.
>
> The transmitter was set to 23.05MHz, and the ATU tuned to develop
> rated power output. The ATU is only used to present the rated load to
> the transmitter so as to obtain 100W for the test, to suit the Bird 43
> element. It is inconsequential to the DUT (the Bird 43).
>
> With this configuration, it is expected that the impedance at the Bird
> 43 is approximately 50+j0, and that there would be almost zero
> reflected power.
>
> The Bird 43 indicated 100W forward power and a quarter of a needle
> width detection on reflected power.
>

> The Bird 43 would appear to provide valid readings for the conditions
> on the Bird 43 Thruline section in this case, notwithstanding that
> there is not any 50 ohm transmission line attached to the Bird 43 +
> N-BNC adapters.
>
> The myth that measurements with a Bird 43 of the conditions on the
> Thruline section are invalid unless it has some minimum length of 50
> ohm line on both sides of itself is BUSTED.

Actually, the results of your experiment proves the myth to be true
and not to be a myth at all. There's 104.17 watts of forward power
through the Bird and 4.17 watts of reflected power back through the
Bird. Why does the Bird ignore those actual power values?

> Has anyone experimental evidence to the contrary?

Yes, your experiment. Assuming 100 watts delivered to the load, the
forward power on the 75 ohm coax is actually about 104.17 watts so
the Bird's forward power reading is in error by 4.17 watts.

The reflected power on the 75 ohm coax is about 4.17 watts so the
Bird's reflected power reading is in error by close to an infinite
percentage. The Bird 43 is reading neither of the actual power values
correctly. All you have just proven is that the Bird 43 gives invalid
readings when it is in a 75 ohm environment.

THERE ARE ABOUT 4.17 WATTS OF REFLECTED ENERGY FLOWING BACK THROUGH THE
BIRD AND THE BIRD COMPLETELY IGNORES IT. So the Bird is not even yielding
valid readings for forward and reflected power through itself. That's
exactly what I have been saying all along. If it were calibrated for
75 ohms, it would indicate the correct values.
--
73, Cecil http://www.qsl.net/w5dxp

2247. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 02:53:32 UTC
From: Sluggo <luser@AOL.com>
Message-ID: <m9mrk11o8c4umdsqpj5gca0o4e4ge12tdj@4ax.com>
Source record: 68894

On Wed, 12 Oct 2005 15:37:17 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>OOPS! The Adcock is just like a loop -- two nulls off both broadside faces.
>The version that looks similar (previously mentioned) where you have two
>vertical dipoles spaced 1/4 wave and a 3/4 wave connecting cross-feed line
>gives the cardioid -- one null.
>
>"Sluggo" <luser@AOL.com> wrote in message
>news:h3dmk1p0od57ig3q5qpm1qgq5gkdtdq3lm
>
>
> 73, Steve, K,9.D;C'I
>
Thanks for the correction; I'm only in my 40's but I've been
hamming a long time, and the years are starting to blur...
Now that I think back on my "real world" experience, the boom
on what I thought was an Adcock could well have been a
wavelength at 2M, tho, as I said, it's kinda fuzzy now... so
it may be that the elements were NOT fed at the center.
Oh well, either way, a good notch is going to beat the
best yagi.

Man, those must be some tasty turtles, to go to all this
trouble to track 'em down...

73, tnx agn..

Sluggo

2248. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 02:56:22 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <05jrk1lj5ghbf01f8mqe0m8ijie1oilgbr@4ax.com>
Source record: 68895

On Wed, 12 Oct 2005 15:11:29 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
><nospam@nouce.bellatlantic.net> wrote in message
>news:judlk1psq9vm45ektnsjfis9ovu1fgav0r@4ax.com...
>> On Tue, 11 Oct 2005 01:03:34 -0400, "Jim" <jbasi@cfw.com> wrote:
>>
>> ...>
>> You already got two good suggestions from others. Here's a third.
>> Build a MOXON square, less gain than yagi but if built right the MOXON
>> has a very distinct readward null, you exploit the null. Another
>> small advantage is it's smaller than a 2 element yagi for the same
>> band.
>>
>> Allison
>Look up the "Tape Measure Yagi" It is designed to have a null off the back,
>but you'll have to adjust the center freq.
>73, Steve, K,9.D.C'I

I've built both. The Tape measure yagi is not nearly as good off the
back and a bit larger. Moxon well done is an easy 35+ db null off
the back and sharper.

Allison

2249. Re: Transmitter ALC

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 03:04:30 UTC
From: nm5k@wt.net
Message-ID: <1129172670.838156.262370@g43g2000cwa.googlegroups.com>
Source record: 68896

My thought is that if you want
audio compression, use a speech processor, not the ALC....

For sure...Another problem these days is some radios
deal with ALC indication in reverse from each other.
IE: I *think* most kenwoods will show more indication
the closer to the edge you get, and if you were to disable
the ALC. the meter would show very high peaks, or maybe
even peg. But many Icoms are reverse. The closer to the "edge"
you set them, the lower the indication. Or at least on my older
730. If you see no indication, Houston, we have a nasty problem.
When you reduce power on an icom, the ALC indication increases,
and I think pegs, if you dial down to QRP range.
One thing that strikes me as real silly, are the ones that try to get
more power by disabling the ALC function. All you gotta do is
turn a trimmer...But it makes the radio nasty as all get out, and
is silly. Not to mention the extra power amounts to little in the
real world, and then you add on the extra wear and tear on the
poor radio...Silly... I hear stories of people getting 140-150-160
watts outa lil IC -706's and I just roll my eyeballs... Boy, I bet
it sounds great...Not...MK

2250. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 04:11:02 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_434dc9ee@fidonet.org>
Source record: 68897

"Gene Fuller" bravely wrote to "All" (12 Oct 05 13:39:25)
--- on the heady topic of "Re: Aluminum tubing?"

GF> From: Gene Fuller <W4SZzzzzzz@att.net>
GF> Xref: core-easynews rec.radio.amateur.antenna:218617

GF> Roger Conroy wrote:
[,,,]
> But you do it ONLY to Alumin(i)um. What about Lithium, Barium, Chromium,
> Ruthenium, Titanium, Uranium, and so on......?

GF> Hmmmm, does "so on" also include Lanthanum, Molybdenum, Platinum, and
GF> Tantalum?

What about wolfram, (aka tungsten)!?

A*s*i*m*o*v

... One tequila, two tequila, three tequila, floor....

2251. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 07:02:33 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <NCn3f.19439$sE3.4128@lakeread07>
Source record: 68898

Fred W4JLE wrote:

> Bill, how can you possibly believe (history aside) that the people from
> fractenna would do such a thing.
>
> Especially since their warm wonderful personalities have enticed all
> knowledgeable amateurs to use nothing but fractal antennas.
>
> "Bill" <k4wge@arrl.net> wrote in message
> news:1129120141.286151.251960@g47g2000cwa.googlegroups.com...
>> Only post on usenet by "tennapro" from AOL. He jumps in to defend the
>> fractenna faction and disappears. We've seen this before.
>>
not all.

Some of the antennas that fractenna, inc. supposedly manufactures were put up for a "test case" to some hams. I had initially requested to be one of those hams. after a small number of e-mail exchanges, I never heard anything further from fractenna, inc or any person there-in.

thus, I tend not to take that company, or its current CEO/CTO and resident "engineer" very seriously.

in fact, I tale exception to a company that has attempted to sue another company from overseas in an attempt to limit their ability to market a competing product here in the states.

so, my question is this: whats the real deal with fractal antennas and why is it that all information that can be found about them so vague in nature?

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

2252. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 07:29:29 UTC
From: kashe@sonic.net
Message-ID: <263sk1phir2c6th6q22ibtl9v47mva6fhe@4ax.com>
Source record: 68899

On Wed, 12 Oct 2005 13:39:25 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>Roger Conroy wrote:
>
>[snip]
>
>>>>>>>Why do you guys in the US always omit the "i" in aluminium ?
>>>
>>>
>>>You mean the second "i"? Probably because we spell it correctly: Aluminum.
>>>;~)
>>
>>
>> But you do it ONLY to Alumin(i)um. What about Lithium, Barium, Chromium,
>> Ruthenium, Titanium, Uranium, and so on......?
>
>Hmmmm, does "so on" also include Lanthanum, Molybdenum, Platinum, and
>Tantalum?
>
>73,
>Gene
>W4SZ

Not to mention Adnauseam. "-)

2253. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 11:44:11 UTC
From: Dave <noone@nowhere.com>
Message-ID: <lOadnRbyAIgP1dPeRVn-1g@crocker.com>
Source record: 68900

"Cecil Moore" <mycall@arrl.net> wrote in message
news:oZi3f.706$tV6.140@newssvr27.news.prodigy.net...
> Owen Duffy wrote:
>
>> The myth: Measurements with a Bird 43 of the conditions on the
>> Thruline section are invalid unless it has some minimum length of 50
>> ohm line on both sides of itself.
>>
>> I have performed a test using components at hand where the Bird 43 has
>> 75 ohm line on both sides of itself, and the test configuration is
>> designed to present a 50+j0 ohm load at the point where the Bird 43
>> sampling element is located. The question is, how does the Bird
>> respond?
>>
>> The test in detail. Each component is in a list from the source to the
>> load:
>>
>> IC706IIG
>> 1m RG58 with UHF connectors
>> MFJ949E ATU
>> 3m RG6 (Zo=75 ohm) with BNC connectors
>> Bird 43
>> 5.27m Belden 9275 (Zo=75 ohm, vf=0.83) with BNC connectors
>> 50 ohm dummy load
>>
>> Short adapters were used to connect to the Bird's Type N connectors,
>> the dummy load's Type N connectors and the MFJ949 UHF connector.
>>
>> The half wave resonance of the 5.27m length of RG6 was determined by
>> s/c one end and connecting the other end via an adapter to a MFJ259B
>> and finding the impedance dip at 23.05MHz. The calculated vf from this
>> test is 0.81, which reconciles reasonably with the specs. Free space
>> wavelenght at the test frequency is 13m.
>>
>> The transmitter was set to 23.05MHz, and the ATU tuned to develop
>> rated power output. The ATU is only used to present the rated load to
>> the transmitter so as to obtain 100W for the test, to suit the Bird 43
>> element. It is inconsequential to the DUT (the Bird 43). With this
>> configuration, it is expected that the impedance at the Bird
>> 43 is approximately 50+j0, and that there would be almost zero
>> reflected power.
>>
>> The Bird 43 indicated 100W forward power and a quarter of a needle
>> width detection on reflected power.

>>
>> The Bird 43 would appear to provide valid readings for the conditions
>> on the Bird 43 Thruline section in this case, notwithstanding that
>> there is not any 50 ohm transmission line attached to the Bird 43 +
>> N-BNC adapters.
>>
>> The myth that measurements with a Bird 43 of the conditions on the
>> Thruline section are invalid unless it has some minimum length of 50
>> ohm line on both sides of itself is BUSTED.
>
> Actually, the results of your experiment proves the myth to be true
> and not to be a myth at all. There's 104.17 watts of forward power
> through the Bird and 4.17 watts of reflected power back through the
> Bird. Why does the Bird ignore those actual power values?
>
>> Has anyone experimental evidence to the contrary?
>
> Yes, your experiment. Assuming 100 watts delivered to the load, the
> forward power on the 75 ohm coax is actually about 104.17 watts so
> the Bird's forward power reading is in error by 4.17 watts.
>
> The reflected power on the 75 ohm coax is about 4.17 watts so the
> Bird's reflected power reading is in error by close to an infinite
> percentage. The Bird 43 is reading neither of the actual power values
> correctly. All you have just proven is that the Bird 43 gives invalid
> readings when it is in a 75 ohm environment.
>
> THERE ARE ABOUT 4.17 WATTS OF REFLECTED ENERGY FLOWING BACK THROUGH THE
> BIRD AND THE BIRD COMPLETELY IGNORES IT. So the Bird is not even yielding
> valid readings for forward and reflected power through itself. That's
> exactly what I have been saying all along. If it were calibrated for
> 75 ohms, it would indicate the correct values.
> --
> 73, Cecil http://www.qsl.net/w5dxp

math please??? where do you get 4.17watts?? to me it looks like a 50 ohm
load on a 50 ohm meter so zero reflected power.

2254. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 12:58:53 UTC
From: Roger Conroy <rogerconroy@nospam.hotmail.com>
Message-ID: <dillrccpk2@ctb-nnrp2.saix.net>
Source record: 68901

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
news:hm83f.133870$qY1.14837@bgtnsc04-news.ops.worldnet.att.net...
> Roger Conroy wrote:
>
> [snip]
>
>>>>>>>Why do you guys in the US always omit the "i" in aluminium ?
>>>
>>>
>>>You mean the second "i"? Probably because we spell it correctly:
>>>Aluminum.
>>>;~)
>>
>>
>> But you do it ONLY to Alumin(i)um. What about Lithium, Barium, Chromium,
>> Ruthenium, Titanium, Uranium, and so on......?
>
> Hmmmm, does "so on" also include Lanthanum, Molybdenum, Platinum, and
> Tantalum?
>
> 73,
> Gene
> W4SZ

We're in complete agreement about those too.
We have 2 "groups" of metals that differ in having "um" or "ium" endings. It is only Alumin(i)um that "switches groups" in crossing the Atlantic. When, how and why did it happen?

The other one that is a consistent transatlantic difference is the group of words that include colo(u)r, odo(u)r, favo(u)r, hono(u)r..... I can't think of any "equivalent" anomalies there. ISTR hearing a radio show on language that mentioned that there is at least one variety of North American English that has kept the "u" - but I just can't remember who/where that is.

73
Roger ZR3RC

2255. Re: 6m on top or bot of TV ant???thanks

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 13:03:40 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <GbadnTwMtZpnx9PeRVn-pw@comcast.com>
Source record: 68902

<lorentsonci@lycos.com> wrote in message
news:t9c8k15a97tu01ofn2s7gikmfh0fiu06ll@4ax.com...
>I would like to ''do this'' because I lack tower space, at present.. I
> have a TV antenna that is on a small tower at about 28' , with a tv
> rotor. I also have a 6 meter horz ground plane , (you know the one
> that looks like a 'pie slice') I would like to add this horz gd plane
> to the tower,,,,,,,,, my question is this,,, would I be better off
> putting it on top of the Tv antenna or below?, what would be a 'good
> spacing' one way or the other (6 on top or 6 below)
> I would like to get some use out of the 6 now, because it will be a
> while before I get another tower up. $$$
> Thanks in advance. cl 73

Doesn't sound like a good idea. There will be enough coupling between the
antennas that there is a chance you will burn out the front end of the TV.
If the TV has protection diodes on its inputs, that will be a source of TVI
when you transmit.

Tam/WB2TT

2256. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 14:31:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <_cu3f.846$q%.565@newssvr12.news.prodigy.com>
Source record: 68903

Dave wrote:
> math please??? where do you get 4.17watts?? to me it looks like a 50 ohm
> load on a 50 ohm meter so zero reflected power.

Here's the setup.

100W--tuner--75 ohm coax--Bird--1/2WL 75 ohm coax--50 ohm load

Assumptions: Losses are negligible. The tuner provides a Z0-match
so 100 watts is delivered to the load, i.e. all reflected power
is re-reflected. I think this was actually the case for the experiment.
Also assume that the impedance bump caused by the insertion of the
Bird is negligible, i.e. the same net voltage and net current exists
whether the Bird is in or out of the circuit.

The voltage reflection coefficient at the load is (50-75)/(50+75)
equals -0.2. That makes the power reflection coefficient (-0.2)^2
equals 0.04, i.e. 4% of the power incident upon the load is reflected.
If 100 watts is delivered to the load while 4% is being reflected
then the power incident upon the load is 100w/(1-0.04)=100w/0.96=
104.1667 watts. Incident power minus delivered power = reflected
power so the reflected power on the 75 ohm coax is 4.1667 watts.

The SWR on the 75 ohm coax is (1+|rho|)/(1-|rho|)= 1.2/0.8 = 1.5
THE SWR ON THE 75 OHM COAX IS 1.5:1. The Bird is in error when
it reports the SWR to be 1:1. The SWR is *NOT* 1:1 anywhere on
the load side of the system.

The Bird reports a forward power of 100w. The actual forward power
is 104.1667w. The Bird reports a reflected power of near zero. The
actual reflected power is 4.1667w. The Bird reports an SWR of 1:1.
The actual SWR is 1.5:1. The Bird is reporting false values because
it is embedded in a 75 ohm environment and is calibrated for 50 ohms.

If the ratio of voltage to current equals 50 within a 75 ohm system,
there exists an SWR of 1.5:1 and an SWR meter calibrated for 75 ohms
will verify that fact.
--
73, Cecil http://www.qsl.net/w5dxp

2257. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 14:35:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ogu3f.847$q%.614@newssvr12.news.prodigy.com>
Source record: 68904

Cecil Moore wrote:
> The SWR is *NOT* 1:1 anywhere on the load side of the system.

Sorry, this should have read: The SWR is *NOT* 1:1 anywhere on
the load side of the tuner.
--
73, Cecil http://www.qsl.net/w5dxp

2258. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 15:08:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <oLu3f.855$q%.666@newssvr12.news.prodigy.com>
Source record: 68905

Dave wrote:
> math please??? where do you get 4.17watts?? to me it looks like a 50 ohm
> load on a 50 ohm meter so zero reflected power.

Let's compare the following two configurations.

100W--tuner--75 ohm coax--Bird--1/2WL 75 ohm coax--50 ohm load

100W--tuner--75 ohm coax--Bird--1/4WL 75 ohm coax--50 ohm load

The actual SWR on the coax is the same in both cases. The actual
forward power and reflected power are the same in both cases.
The SWR on the coax is 75/50 = 1.5:1. The actual forward power
is 104.1667w and the actual reflected power is 4.1667w.

In the first case the Bird will report an SWR of 1:1, a forward
power of 100w, and a reflected power of zero simply because the
ratio of net voltage to net current is 50 ohms at the Bird
measurement point.

In the second case the Bird will report an SWR of 2.25:1, a
forward power of 117.4w and a reflected power of 17.4w simply
because the ratio of net voltage to net current is 112.5 ohms
at the Bird measurement point.

The ratio of net voltage to net current alone is useless for
calculating SWR unless the Z0 environment (characteristic impedance)
exists and is known. Minus the humor, I believe this is Reg's main point.
--
73, Cecil http://www.qsl.net/w5dxp

2259. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 15:18:21 UTC
From: Dave <noone@nowhere.com>
Message-ID: <nL2dnT_Jqv1Y59PeRVn-iA@crocker.com>
Source record: 68907

"Cecil Moore" <mycall@arrl.net> wrote in message
news:_cu3f.846$q%.565@newssvr12.news.prodigy.com...
> Dave wrote:
>> math please??? where do you get 4.17watts?? to me it looks like a 50 ohm
>> load on a 50 ohm meter so zero reflected power.
>
> Here's the setup.
>
> 100W--tuner--75 ohm coax--Bird--1/2WL 75 ohm coax--50 ohm load
>
> Assumptions: Losses are negligible. The tuner provides a Z0-match
> so 100 watts is delivered to the load, i.e. all reflected power
> is re-reflected. I think this was actually the case for the experiment.
> Also assume that the impedance bump caused by the insertion of the
> Bird is negligible, i.e. the same net voltage and net current exists
> whether the Bird is in or out of the circuit.

STOP!

you can not assume this, especially if you consider the actual results of
the experiment. the bird is a 50 ohm transmission line segment and it is
seeing a 50 ohm load. the 50 ohm load plus 1/2 wave of anything is 50 ohms.
so as far as the bird knows there is no reflected power and the real world
reading is correct.

2260. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 15:18:22 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <2Vu3f.10492$y_1.7568@edtnps89>
Source record: 68906

"Cecil Moore" <mycall@arrl.net> wrote in message
news:oLu3f.855$q%.666@newssvr12.news.prodigy.com...
> Dave wrote:
>> math please??? where do ----

> ----alone is useless for
> calculating SWR unless the Z0 environment (characteristic impedance)
> exists and is known. Minus the humor, I believe this is Reg's main point.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Did I miss something? As far as the Bird is concerned, all it sees is 50
ohms, indistinguishable from a 50 ohm termination, on its connector.

73,

Frank

2261. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 15:43:25 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xgv3f.860$q%.821@newssvr12.news.prodigy.com>
Source record: 68908

Dave wrote:

> "Cecil Moore" <mycall@arrl.net> wrote in message
>>Also assume that the impedance bump caused by the insertion of the
>>Bird is negligible, i.e. the same net voltage and net current exists
>>whether the Bird is in or out of the circuit.
>
> you can not assume this, especially if you consider the actual results of
> the experiment. the bird is a 50 ohm transmission line segment and it is
> seeing a 50 ohm load. the 50 ohm load plus 1/2 wave of anything is 50 ohms.
> so as far as the bird knows there is no reflected power and the real world
> reading is correct.

Remove the Bird, reconnect the two pieces of 75 ohm coax, and I'll
bet you will measure 70.7 volts and 1.414 amps at that point, 1/2
WL back from the 50 ohm load. If so, the Bird is NOT changing the
conditions when it is inserted. And we know there has to be reflected
power all up and down the 75 ohm coax. There is no place in the system
on the load side of the tuner where reflected power is zero. The
reflected power exists and the Bird reports a bogus reading for it.

With or without the Bird in the circuit the ratio of net voltage
to net current at the measurement point, 1/2WL away from the 50
ohm load, will be 50 ohms according to transmission line theory.
That's all the Bird is seeing - a V/I ratio of 50 which is irrelevant
to SWR unless Z0 is known and Z0 is known to be 75 ohms, NOT 50 ohms.

The ratio of net voltage to net current is All THE BIRD EVER SEES.
"As far as the bird knows ..." it is embedded in a 50 ohm environment.
But the Bird is not all-knowing. In this case, it is embedded in a
75 ohm environment and is giving bogus readings because all it sees
(samples) is a net voltage to net current whose ratio is 50 ohms.

It is what the Bird doesn't know that is important. The Bird doesn't
know that it is not embedded in a 50 ohm environment, and in its
ignorance of that fact, reports bogus results.

The actual SWR on a lossless line doesn't change. Yet, in another
posting, I showed that moving the Bird 1/4WL closer to the load
caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
could both results possibly be right?
--
73, Cecil http://www.qsl.net/w5dxp

2262. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 15:58:49 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Zuv3f.861$q%.223@newssvr12.news.prodigy.com>
Source record: 68909

Frank wrote:
> Did I miss something? As far as the Bird is concerned, all it sees is 50
> ohms, indistinguishable from a 50 ohm termination, on its connector.

Exactly the point, Frank. The Bird doesn't know it is embedded
in a 75 ohm environment and reports bogus results because it
assumes it is embedded in a 50 ohm environment, which it is not.
This is Reg's main point in wanting to call the SWR meter a TLI
meter.

The Bird is not to blame for reporting bogus results. It is the
operator who is to blame for using a 50 ohm meter in a 75 ohm
environment and reporting the bogus results as valid.

100w--tuner--75 ohm coax--x--1/2WL 75 ohm coax--50 ohm load

Without a Bird installed at point 'x', most everyone would
agree that the SWR all up and down the 75 ohm coax is 1.5:1
and the voltage and current at point 'x' are the same as the
in-phase voltage and current at the 50 ohm load.

The voltage at point 'x' is 70.7 volts, and the current at point
'x' is 1.414 amps. The SWR on the line is 1.5:1.

Now, installing the Bird at point 'x' doesn't change anything
appreciably. The voltage at point 'x' is still very close to
70.7 volts and the current at point 'x' is still very clost
to 1.414 amps. Those two parameters are what the Bird samples
and all the Bird sampoles. And since the Bird is calibrated for
50 ohms, it reports a bogus SWR of 1:1. If the Bird is recalibrated
for 75 ohms, it will report the correct SWR of 1.5:1.
--
73, Cecil http://www.qsl.net/w5dxp

2263. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 15:59:31 UTC
From: Dave <noone@nowhere.com>
Message-ID: <7dqdndDq5IH3GdPeRVn-qQ@crocker.com>
Source record: 68910

"Cecil Moore" <mycall@arrl.net> wrote in message
news:xgv3f.860$q%.821@newssvr12.news.prodigy.com...
> Dave wrote:
>
>> "Cecil Moore" <mycall@arrl.net> wrote in message
>>>Also assume that the impedance bump caused by the insertion of the
>>>Bird is negligible, i.e. the same net voltage and net current exists
>>>whether the Bird is in or out of the circuit.
>>
>> you can not assume this, especially if you consider the actual results of
>> the experiment. the bird is a 50 ohm transmission line segment and it is
>> seeing a 50 ohm load. the 50 ohm load plus 1/2 wave of anything is 50
>> ohms. so as far as the bird knows there is no reflected power and the
>> real world reading is correct.
>
> Remove the Bird, reconnect the two pieces of 75 ohm coax, and I'll
> bet you will measure 70.7 volts and 1.414 amps at that point, 1/2
> WL back from the 50 ohm load. If so, the Bird is NOT changing the
> conditions when it is inserted. And we know there has to be reflected
> power all up and down the 75 ohm coax. There is no place in the system
> on the load side of the tuner where reflected power is zero. The
> reflected power exists and the Bird reports a bogus reading for it.
>
> With or without the Bird in the circuit the ratio of net voltage
> to net current at the measurement point, 1/2WL away from the 50
> ohm load, will be 50 ohms according to transmission line theory.
> That's all the Bird is seeing - a V/I ratio of 50 which is irrelevant
> to SWR unless Z0 is known and Z0 is known to be 75 ohms, NOT 50 ohms.
>
> The ratio of net voltage to net current is All THE BIRD EVER SEES.
> "As far as the bird knows ..." it is embedded in a 50 ohm environment.
> But the Bird is not all-knowing. In this case, it is embedded in a
> 75 ohm environment and is giving bogus readings because all it sees
> (samples) is a net voltage to net current whose ratio is 50 ohms.
>
> It is what the Bird doesn't know that is important. The Bird doesn't
> know that it is not embedded in a 50 ohm environment, and in its
> ignorance of that fact, reports bogus results.
>
> The actual SWR on a lossless line doesn't change. Yet, in another
> posting, I showed that moving the Bird 1/4WL closer to the load
> caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
> could both results possibly be right?
> --

> 73, Cecil http://www.qsl.net/w5dxp

obviously at 1/4 wave from the load the impedance seen by the bird is not 50 ohms. you just can't ignore that internally the bird is a 50 ohm line, even though it is only a couple inches long it is 50 ohms, put a 50 ohm load on it and it will read no reflected power. this is just how it works, you can't wish it to be anything else, especially when the actual measurements prove me correct. you may try to assume away the bird and its characteristic impedance, but it just won't go away as evidenced by the real world measurements. you have to realize that the bird is not measuring what is going on outside it's case, the only thing it can measure is the voltage and current in its little 50 ohm internal world. so look at it from the meter's point of view... it looks out the load side and sees 50 ohms, it can't know that it is really a 75 ohm line, in fact it can't know there is any line there at all, it just sees a 50 ohm load, therefore no reflection into the meter, and no reflected power reading. qed.

2264. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 16:15:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9Kv3f.864$q%.22@newssvr12.news.prodigy.com>
Source record: 68911

Dave wrote:
> obviously at 1/4 wave from the load the impedance seen by the bird is not 50
> ohms.

That's the whole point, Dave. The poor ignorant Bird doesn't know what
is going on external to itself. You and I have to be smarter than the
Bird and not report its bogus results as "correct". The Bird reports
a 9:1 SWR on a matched-line 450 ohm ladder-line. Is the SWR really 9:1?

> this is just how it works, you
> can't wish it to be anything else, especially when the actual measurements
> prove me correct.

The actual measurements prove you wrong! The forward power reported by
the Bird is NOT the actual forward power. The reflected power reported
by the Bird is NOT the actual reflected power. The SWR reported by the
Bird does not exist anywhere in the system on the load side of the tuner.
The Bird is totally confused because it is being abused by the operator.
The operator is totally ignorant when he reports the readings are "correct".

> you have to realize that the bird is not measuring what
> is going on outside it's case, the only thing it can measure is the voltage
> and current in its little 50 ohm internal world.

That's exactly the point and that's why some readings reported by the
Bird are obviously bogus when compared to the broader knowledge of
actual external conditions. The operator needs to be smarter than the
Bird.

> so look at it from the
> meter's point of view... it looks out the load side and sees 50 ohms, it
> can't know that it is really a 75 ohm line, in fact it can't know there is
> any line there at all, it just sees a 50 ohm load, therefore no reflection
> into the meter, and no reflected power reading. qed.

But you and I know that 75 ohm reflected energy is flowing through the
Bird and the Bird is ignoring it. Of course, we cannot blame the Bird
for the bogus readings. We can only blame the ignorant operator who reports
that the bogus readings are "correct" when they are obviously false.
--
73, Cecil http://www.qsl.net/w5dxp

2265. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 16:23:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rbtsk11ouecv3l23fflv15vd8lqpf5cm3h@4ax.com>
Source record: 68912

On Thu, 13 Oct 2005 00:02:33 -0700, N7ZZT - Eric Oyen
<n7zzt@127.0.0.1> wrote:

>so, my question is this: whats the real deal with fractal antennas and why
>is it that all information that can be found about them so vague in nature?

Hi Eric,

In a nutshell, the fractalists have hi-graded the field to offer us
what they say are the characteristics of the "class" of fractals.

Hi-grading is a mining term to mean that only the best ore deposits
are sought and mined, leaving the rest for waste. A miner might sell
you Gold Mountain, but to be sure, that mine follows only the vein,
already tapped out, and the rest of that dung hill is exactly that.

Hence, the fractalists have looked at everything that has a fractal
form, and discarded the losers. They keep the best performers, polish
them up for papers and trade shows and present them as the exemplars
of this new mathematics of RF.

Problem is, that when you ask about that mathematics, and how it fails
to explain the losers of that same class they discarded, the
scientific enquiry turns to legal suit pivoting on the point of your
attempt to poison the commercial market place.

In other words, there is never an explanation of why some are so good,
according to this new math, nor that other examples of that math are
so bad (according to that same math). To put it bluntly, they have no
method to forecast just what it is in the math that points to
performance. The math, as it always did, points to the shape -
interesting doodles. Unfortunately, this is not something that you
can stand up in front of the VC crowd and offer as a way to achieve
ROI.

On the other hand, in my work has shown a correlation to the math. It
is a very simple correlation. The more kinks you put in the wire, the
more resonances appear.

Simply put, examine a standard dipole over a range of frequencies, say
from 0.1F to 5F of the dipole's resonant F. There are n resonances
for a dipole. Taking that same length of wire and changing its shape
to a fractal (or any other for that matter) will produce m resonances.
You will find that m > n. Also, at the high end of the F scale
(towards 3F,4F and 5F or more), and for a characteristic of 300 Ohms,
the antenna becomes quite broadbanded.

This points out one of those "marketing" opportunities so often visited upon us here in years past. The claim that fractals offer multiband operation AND are broadbanded is true, separately, but the claim is often crafted to sound as this is simultaneously achievable. Whenever we examined this crafted claim, the arguments were always turned away or the claim "explained" by parts, but never as a whole. In other words, only the best examples of a fractal ever exhibited such dual characteristics, and often barely then and frequently from a practical Ham perspective (as to which bands) never very different than say an OCF Dipole (which can make the same claims by the way).

So, once you got your foot in the door, understood the basis of design, and the return on your investment (roi in less than caps); then you could stand back and try to imagine a third iteration Sierpinski dragon in your back yard for 2M through 160M. Then the blood would drain away, and you would black out.

All such fractal qualities have been investigated by me and reported at:
http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
This offer of a link rarely fails to put the reader to sleep, so indulge only late at night if you prize the day. To my experience, absolutely no writer that has offered any interest in fractals has ever pursued it more than half a dozen postings. Once you strip away all the claims and simply look at the data, and the most general characteristics; then there is something to discuss - none seem interested even though it goes to the heart of antenna design.

73's
Richard Clark, KB7QHC

2266. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 16:25:43 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dim2gf$2m2$1@news.service.uci.edu>
Source record: 68914

Cecil Moore wrote:

> The actual SWR on a lossless line doesn't change. Yet, in another
> posting, I showed that moving the Bird 1/4WL closer to the load
> caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
> could both results possibly be right?

You need to keep thinking about that. What if they are both right? Is it really one continuous, uniform transmission line? Is SWR the same everywhere in a tee stub circuit?

ac6xg

2267. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 16:30:47 UTC
From: Dave <noone@nowhere.com>
Message-ID: <072dnTd0AvMiFtPenZ2dnUVZ_s2dnZ2d@crocker.com>
Source record: 68913

"Cecil Moore" <mycall@arrl.net> wrote in message
news:9Kv3f.864$q%.22@newssvr12.news.prodigy.com...
> Dave wrote:
>> obviously at 1/4 wave from the load the impedance seen by the bird is not
>> 50 ohms.
>
> That's the whole point, Dave. The poor ignorant Bird doesn't know what
> is going on external to itself. You and I have to be smarter than the
> Bird and not report its bogus results as "correct". The Bird reports
> a 9:1 SWR on a matched-line 450 ohm ladder-line. Is the SWR really 9:1?

well DUH! obviously if you want to measure swr on a 450 ohm ladder line you
don't use a 50 ohm bird! anyone using a 50 ohm bird has to expect results
to be referenced to its internal 50 ohm line. i.e. if you actually do
measure no reflected power so you know the load on the bird is 50 ohms, and
if you really are in a 75 ohm environment then you can compute what the swr
is on the 75 ohm line... just don't expect the bird to show it to you
directly.

2268. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 16:45:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dim2vvhjl1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68915

"Cecil Moore" wrote -
> Minus the humor, I believe this is Reg's main point.

==========

Dear Cec,

I assume you are referring to me, Reg Edwards, G4FGQ.

Before responding I have found it necessary to have several glasses of Australian, Banrock Station, 2004, Shiraz Mataro, Red. It can be recommended with confidence.

I have only ever had ONE point. It is that arguments and discussions about SWR, invariably involving "ifs" and "buts" and vivid imaginations of the contributors, are of entertainment value only. In any event, CB-ers and novices are unlikely to learn anything from it.

There is only one transmission line on which SWR matters. It is that which runs between the so-called SWR meter or tuner and the antenna. It is generally unknown. But whatever it is the so-called SWR meter, even a Bird, is incapable of measuring it.

Having got that off my chest. now perhaps I can finish the bottle with a cigarette.

Reg, G4FGQ.

2269. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 16:53:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2r2tk1hsl1svdo1ns76eid67dftkhs654f@4ax.com>
Source record: 68916

On Thu, 13 Oct 2005 14:31:22 GMT, Cecil Moore <mycall@arrl.net> wrote:

>The Bird is in error when it reports the SWR to be 1:1.
This is the poor carpenter blaming his tools. The instrument can only be valid within its presumed operating conditions. Deliberate misuse is not a reason to crow about inaccuracy.
>The SWR is *NOT* 1:1 anywhere on the load side of the tuner.
This is the poor carpenter asking for his wage for his "craft." The Bird is accurately responding to the operating conditions it is found within. The manufacturer of the Bird wattmeter makes no claim as to the state of match BEFORE the meter; and especially when it is so obviously and deliberately misused - which in this sliver of specificity is transparent to the reading.

What is being busted is the claim that a necessary condition of operation for the Bird was the requirement for a length of 50 Ohm line to "force" a purely mythical presumption. That myth has been exposed and discarded.

- -

Owen,

To respond to your last question:
>>Has anyone experimental evidence to the contrary?
is consistently NO. Your own time at the bench has already drained the pool of ability in that regard. Your only expectation ever after having bellied up to the bench is to watch your work being gummed to death.

However, for completeness' sake, and as no one here really understands what accuracy is about anyway, there is one factor to be considered. The numbers offered verge on the limit of the Bird's ability to resolve a power anyway. There is a built in probability of ï¿½5W of error from the get-go, and any snake oil salesman can craft an argument leveraging that error to prove anything. We have seen that ï¿½5W error in the form of an argument that uses both + and - (not simply one or the other) to please a theory.

Owen, the same experiment with a deliberate mismatch of 3:1 would be just as effective at busting the myth AND providing data that overwhelmed the inherent meter inaccuracy.

73's
Richard Clark, KB7QHC

2270. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 17:10:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ayw3f.16275$6e1.10372@newssvr14.news.prodigy.com>
Source record: 68917

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> The actual SWR on a lossless line doesn't change. Yet, in another
>> posting, I showed that moving the Bird 1/4WL closer to the load
>> caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
>> could both results possibly be right?
>
> You need to keep thinking about that. What if they are both right?

Here's the example sans the Bird. Between the tuner output
and the load, where exactly is the actual SWR = 1:1 and where
exactly is the actual SWR = 2.25:1? Answer: nowhere!

XMTR--tuner---1 WL 75 ohm coax---50 ohm load
--
73, Cecil http://www.qsl.net/w5dxp

2271. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 17:12:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <sAw3f.16276$6e1.8330@newssvr14.news.prodigy.com>
Source record: 68918

Dave wrote:
> well DUH! obviously if you want to measure swr on a 450 ohm ladder line you
> don't use a 50 ohm bird!

Yes, now you are getting it. If you want to measure SWR on a 75 ohm
coax line, you don't use a 50 ohm Bird. I couldn't have said it
better myself.
--
73, Cecil http://www.qsl.net/w5dxp

2272. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 17:27:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <FNw3f.16280$6e1.2142@newssvr14.news.prodigy.com>
Source record: 68919

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>The Bird is in error when it reports the SWR to be 1:1.
>
> This is the poor carpenter blaming his tools.

Exactly! You got my point. It is operators who refuse to
recognize the errors in the Bird's readings and report
a bogus SWR as "correct" who are at fault.
--
73, Cecil http://www.qsl.net/w5dxp

2273. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 17:30:03 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dim6aj$4j3$1@news.service.uci.edu>
Source record: 68921

Cecil Moore wrote:
> Jim Kelley wrote:
>
>>
>> Cecil Moore wrote:
>>
>>> The actual SWR on a lossless line doesn't change. Yet, in another
>>> posting, I showed that moving the Bird 1/4WL closer to the load
>>> caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
>>> could both results possibly be right?
>>
>>
>> You need to keep thinking about that. What if they are both right?
>
>
> Here's the example sans the Bird. Between the tuner output
> and the load, where exactly is the actual SWR = 1:1 and where
> exactly is the actual SWR = 2.25:1? Answer: nowhere!
>
> XMTR--tuner---1 WL 75 ohm coax---50 ohm load

And the answer would be different still in this circuit.

XMTR---1/4 WL 75 ohm coax---50 ohm load

Amazin', what happens when you change the circuit!

ac6xg

2274. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 17:46:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dim6hj$e53$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68920

"Reg Edwards" wrote
> CB-ers and novices are unlikely to learn anything from it.
>
==========

And it appears some professional IEEE engineers and university
professors also remain in difficulty.

Just because, from it's sales blurb and scale markings, an instrument
is purported to measure SWR with forward and reflected power, should
not be taken as being the gospel truth. It can be highly misleading.
And from this newsgroup it seems it is!

There's still some left in the bottle. Hic! Hic!

Reg.

2275. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 18:18:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vm8tk1thoqb7vlfgbl56508h59fchqavfe@4ax.com>
Source record: 68922

On Thu, 13 Oct 2005 17:27:01 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Richard Clark wrote:
>
>> Cecil Moore <mycall@arrl.net> wrote:
>>>The Bird is in error when it reports the SWR to be 1:1.
>>
>> This is the poor carpenter blaming his tools.
>
>Exactly! You got my point. It is operators who refuse to
>recognize the errors in the Bird's readings

There was no error in the reading beyond the inherent ï¿½5% specified as
the meter movement's. Owen no where at any time makes any appeal to
measuring or presenting SWR so the following claim is entirely
fabricated to present something not under his, my, or other poster's
consideration:

>and report a bogus SWR as "correct" who are at fault.

Persistence in wedging a new picture into a valuable frame does not
make it a classic portrait by a master of the craft. This finger
painting being offered is no more notable than yet another tacky Elvis
on velvet.

2276. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 18:41:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <XTx3f.963$dO2.518@newssvr29.news.prodigy.net>
Source record: 68923

Jim Kelley wrote:
>
>
> Cecil Moore wrote:

>> Here's the example sans the Bird. Between the tuner output
>> and the load, where exactly is the actual SWR = 1:1 and where
>> exactly is the actual SWR = 2.25:1? Answer: nowhere!
>>
>> XMTR--tuner---1 WL 75 ohm coax---50 ohm load
>
> And the answer would be different still in this circuit.
>
> XMTR---1/4 WL 75 ohm coax---50 ohm load

No, it wouldn't. The answer is exactly the same. *NOWHERE* is
the SWR 1:1 or 2.25:1. In both examples, the SWR on the coax
is 1.5:1. The SWR is *always* set by the relationship of Z0
to the load. In both examples above, that relationship is
identical.

> Amazin', what happens when you change the circuit!

Z0 didn't change. The load didn't change. Therefore, the
SWR didn't change. What exactly do you think changed?
--
73, Cecil http://www.qsl.net/w5dxp

2277. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 18:48:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <FZx3f.964$dO2.198@newssvr29.news.prodigy.net>
Source record: 68924

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>Exactly! You got my point. It is operators who refuse to
>>recognize the errors in the Bird's readings
>
> There was no error in the reading beyond the inherent ï¿½5% specified as
> the meter movement's.

The Bird is supposed to measure power. The Bird's forward
power readings are in error unless used in a 50 ohm
environment.

I previously talked about using a hammer on a screw. I was
hoping even you could understand that metaphor without me
having to explain it to you.
--
73, Cecil http://www.qsl.net/w5dxp

2278. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 18:57:29 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dimbg1$6v5$1@news.service.uci.edu>
Source record: 68979

Cecil Moore wrote:

> Z0 didn't change. The load didn't change. Therefore, the
> SWR didn't change. What exactly do you think changed?

I think the circuit changed. Don't you? I also think that if you change the circuit, it's possible to measure the effect of that change. The meter measures what takes place at its insertion point in the circuit. What you seem to be upset about is that it might not in every case accurately display the conditions at some arbitrary position away from its insertion point. Like within a shorted quarterwave stub for example. Are you still unwilling to accept that the meter itself can present a perturbation?

ac6xg

2279. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:00:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gjbtk1hqqlc1l5i1jd8m4g2a0843hbve5b@4ax.com>
Source record: 68925

On Thu, 13 Oct 2005 18:48:05 GMT, Cecil Moore <mycall@arrl.net> wrote:

>The Bird is supposed to measure power. The Bird's forward
>power readings are in error
That has not been demonstrated by Owen's example. Elvis is getting
moldy, and the velvet is becoming tattered at the frame where it was
nailed in.

2280. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:11:30 UTC
From: Dave <noone@nowhere.com>
Message-ID: <N-qdnW4r5dD3LNPeRVn-vA@crocker.com>
Source record: 68976

"Cecil Moore" <mycall@arrl.net> wrote in message
news:sAw3f.16276$6e1.8330@newssvr14.news.prodigy.com...
> Dave wrote:
>> well DUH! obviously if you want to measure swr on a 450 ohm ladder line
>> you don't use a 50 ohm bird!
>
> Yes, now you are getting it. If you want to measure SWR on a 75 ohm
> coax line, you don't use a 50 ohm Bird. I couldn't have said it
> better myself.
> --

then why are you complaining about it not showing the swr on the 75 ohm
coax?? you should know that no one in their right mind would expect it to
do that.

2281. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:15:24 UTC
From: Dave <noone@nowhere.com>
Message-ID: <av6dneFqA4LIL9PeRVn-sA@crocker.com>
Source record: 68977

"Cecil Moore" <mycall@arrl.net> wrote in message
news:XTx3f.963$dO2.518@newssvr29.news.prodigy.net...
> Jim Kelley wrote:
>>
>>
>> Cecil Moore wrote:
>
>>> Here's the example sans the Bird. Between the tuner output
>>> and the load, where exactly is the actual SWR = 1:1 and where
>>> exactly is the actual SWR = 2.25:1? Answer: nowhere!
>>>
>>> XMTR--tuner---1 WL 75 ohm coax---50 ohm load
>>
>> And the answer would be different still in this circuit.
>>
>> XMTR---1/4 WL 75 ohm coax---50 ohm load
>
> No, it wouldn't. The answer is exactly the same. *NOWHERE* is
> the SWR 1:1 or 2.25:1. In both examples, the SWR on the coax
> is 1.5:1. The SWR is *always* set by the relationship of Z0
> to the load. In both examples above, that relationship is
> *identical*.
>
>> Amazin', what happens when you change the circuit!
>
> Z0 didn't change. The load didn't change. Therefore, the
> SWR didn't change. What exactly do you think changed?
> --
> 73, Cecil http://www.qsl.net/w5dxp

obviously the problem here is that cecil thinks he is the only one that
knows better than to try to measure reflected power with a 50 ohm meter in a
75 ohm coax.

2282. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:17:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7py3f.967$dO2.323@newssvr29.news.prodigy.net>
Source record: 68978

Richard Clark wrote:
> Cecil Moore <mycall@arrl.net> wrote:
>>The Bird is supposed to measure power. The Bird's forward
>>power readings are in error
>
> That has not been demonstrated by Owen's example.

Richard, if you don't understand why a 50 ohm power meter yields
erroneous readings when installed in a 75 ohm environment, I
don't know what else to tell you. What is it about using a
hammer on a screw that you don't understand?
--
73, Cecil http://www.qsl.net/w5dxp

2283. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:22:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <muy3f.969$dO2.291@newssvr29.news.prodigy.net>
Source record: 68980

Dave wrote:
> then why are you complaining about it not showing the swr on the 75 ohm
> coax?? you should know that no one in their right mind would expect it to
> do that.

You at first essentially implied that a Bird wattmeter calibrated for
50 ohms yields valid readings in a 75 ohm environment. I was questioning
whether you were in your right mind or not. Others have been strangely
silent on the subject. Still others seem not to have gotten it yet.
--
73, Cecil http://www.qsl.net/w5dxp

2284. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:26:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0yy3f.970$dO2.383@newssvr29.news.prodigy.net>
Source record: 68981

Jim Kelley wrote:

> Cecil Moore wrote:
>> Z0 didn't change. The load didn't change. Therefore, the
>> SWR didn't change. What exactly do you think changed?
>
> I think the circuit changed. Don't you?

The circuit changed without changing the forward power,
reflected power, and SWR so nothing of interest to the
present topic (V/I ratio) changed.

Do you know what dictates the SWR in a distributed network?
Certainly not the length of the feedline or the removal
of a tuner (assuming lossless conditions).
--
73, Cecil http://www.qsl.net/w5dxp

2285. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:32:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ADy3f.971$dO2.610@newssvr29.news.prodigy.net>
Source record: 68982

Dave wrote:
> obviously the problem here is that cecil thinks he is the only one that
> knows better than to try to measure reflected power with a 50 ohm meter in a
> 75 ohm coax.

From your posturing, it wasn't readily apparent to me that
you were agreeing with me.
--
73, Cecil http://www.qsl.net/w5dxp

2286. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 19:58:16 UTC
From: Dave <noone@nowhere.com>
Message-ID: <rPSdneR9ytD9ldPenZ2dnUVZ_s6dnZ2d@crocker.com>
Source record: 68983

"Cecil Moore" <mycall@arrl.net> wrote in message
news:ADy3f.971$dO2.610@newssvr29.news.prodigy.net...
> Dave wrote:
>> obviously the problem here is that cecil thinks he is the only one that
>> knows better than to try to measure reflected power with a 50 ohm meter
>> in a 75 ohm coax.
>
> From your posturing, it wasn't readily apparent to me that
> you were agreeing with me.
> --

i'm not agreeing with how you assume the 50 ohm impedance of the meter out of the circuit. and i am not agreeing that there should be reflected power measured by the meter in the case of the 50 ohm load on the end of a 1/2 wave 75 ohm line. obviously it will not measure any reflected power which is perfectly correct for the whole circuit as defined and as actually measured.

2287. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 20:01:05 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_434eb199@fidonet.org>
Source record: 68984

"Roger Conroy" bravely wrote to "All" (13 Oct 05 14:58:53)
--- on the heady topic of "Re: Aluminum tubing?"

RC> From: "Roger Conroy" <rogerconroy@nospam.hotmail.com>
RC> Xref: core-easynews rec.radio.amateur.antenna:218675

RC> . ISTR hearing a radio
RC> show on language that mentioned that there is at least one variety of
RC> North American English that has kept the "u" - but I just can't
RC> remember who/where that is.
RC> 73
RC> Roger ZR3RC

Canadian English.

A*s*i*m*o*v

... Department of the Interior, in charge of everything outdoors..

2288. Re: Need RDF Yagi alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 20:02:18 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dimega$67f$1@engnntp2.cig.mot.com>
Source record: 68986

"Sluggo" <luser@AOL.com> wrote in message
news:m9mrk11o8c4umdsqpj5gca0o4e4ge12tdj@4ax.com...
> ...
> >
> Thanks for the correction; I'm only in my 40's but I've been
> hamming a long time, and the years are starting to blur......
> Sluggo

Damn young whipper snappers... (;-)

73, Steve, K,9.D;C'I

2289. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 20:04:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tletk1lfrdv205093eu0o9i6gaa5dj4cp7@4ax.com>
Source record: 68985

On Thu, 13 Oct 2005 19:17:23 GMT, Cecil Moore <mycall@arrl.net> wrote:
>you don't understand why a 50 ohm power meter yields erroneous readings
Any error of misunderstanding Owen's post is entirely your own.
My career in calibrating RF Wattmeters while you were flipping bits is
a good indicator of the tectonic trench you stand in.

The fact remains, there has been no error displayed (beyond the casual
5% reading error inherent in the meter) nor his results refuted as to
how much power has impinged upon the cabled load as he explicitly
described being attached to the Bird's measurement port. As there is
no other use for such a wattmeter, any appeals to the contrary are
idle chatter.

Owen's claim stands: the myth of requiring a 50 Ohm transmission line
at the measurement port of the Bird wattmeter has been debunked. This
comes as no surprise but for one poster to this board.

2290. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 21:22:01 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <sejtk19u3kicq377fr6dheb1hflie6bcfs@4ax.com>
Source record: 68987

On Thu, 13 Oct 2005 16:45:51 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Before responding I have found it necessary to have several glasses of
>Australian, Banrock Station, 2004, Shiraz Mataro, Red. It can be
>recommended with confidence.

Entirely OT:

Reg, you are way to impatient. There are very few Australian Shiraz
that should be taken in less than three years.

I can't recall the "instructions" on the back of the bottle that tell
one what to drink it with and when to drink it, but Banrock Station
produce "everday drinking" quality reds that should stand a few years
cellaring, but most wines in this part of the market will state "enjoy
now" for marketing purposes.

IIRC, the labels carry a bit of a story on their wildlife refuge, do
they get to tell you what to eat with it?

Anyway, now that it is open, enjoy it.

Owen
--

2291. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 21:25:21 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <pjhtk1dm8kpn7j8n87fpjgifdjpeph5r57@4ax.com>
Source record: 68988

On Thu, 13 Oct 2005 09:53:08 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:
>
>Owen,
>
>To respond to your last question:
>>>Has anyone experimental evidence to the contrary?
>is consistently NO. Your own time at the bench has already drained
>the pool of ability in that regard. Your only expectation ever after
>having bellied up to the bench is to watch your work being gummed to
>death.
>

I fully expected someone to object, not only to object, but to do so
without any original experimental evidence and to devalue the
experiment that I did so that some readers who do not have even a
meager understanding of transmission line theory fall to being
convinced by whoever is most tenacious is defending their position.

>However, for completeness' sake, and as no one here really understands
>what accuracy is about anyway, there is one factor to be considered.
>The numbers offered verge on the limit of the Bird's ability to
>resolve a power anyway. There is a built in probability of ï¿½5W of
>error from the get-go, and any snake oil salesman can craft an
>argument leveraging that error to prove anything. We have seen that
>ï¿½5W error in the form of an argument that uses both + and - (not
>simply one or the other) to please a theory.
>
>Owen, the same experiment with a deliberate mismatch of 3:1 would be
>just as effective at busting the myth AND providing data that
>overwhelmed the inherent meter inaccuracy.

Indeed, and I considered a number of other experiments that did so,
but this one was based on components at hand, and should have been
easily understood by a person with the most basic understanding of
transmission line theory. It was important to surround the Bird with
line different to 50 ohms.

I expect the argument to twist an turn, to focus on everything but the
assertions that:
- there should be approximately a 50+j0 Z presented to the load side
terminals of the Bird Thruline (ie the ratio of V/I is 50+j0 where V
is the net or forward and reflected voltages, and I is the net of
forward and reflected currents);
- the Bird Thruline is a 120mm section of 50 ohm transmission line;

- in the region of the Bird Thruline sampler element, the ratio of V/I is approximately 50+j0;
and that the observed Bird 43 readings were reasonably consistent with those assertions.

The arguments that knowing that the Bird measurements are valid at the point of measurement is of little value are unrelated to the issue and a diversionary tactic, but wrong nevertheless. I won't add to the diversion to identify them.

I will extract the essence of the analysis and write a separate web page on it that may in the longer term assist others in their development, go being "gummed to death" doesn't totally devalue the information behind the case, and it might just be the cost of exposing the proposition to review.

Thank you for your support.

Owen

PS: I am planning my next mythbusters (oh no! I hear...) Myth: SWR meters measure SWR. Now this is not to bag SWR meters, I think that they are very useful instruments, but they have limitations, and the greatest problem is not the meters, but probably the knowledge base of those (ab)using them.
--

2292. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 22:02:37 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dimmedbtk1@news.service.uci.edu>
Source record: 68990

Owen Duffy wrote:

> The arguments that knowing that the Bird measurements are valid at the
> point of measurement is of little value are unrelated to the issue and
> a diversionary tactic, but wrong nevertheless.

Hi Owen,

If it's wrong to argue that Bird wattmeter measurements are valid at the
point of measurement, I don't wanna be right. ;-)

> PS: I am planning my next mythbusters (oh no! I hear...)

Undoubtedly it's the collective "oh goody!" that you hear.

> Myth: SWR
> meters measure SWR. Now this is not to bag SWR meters, I think that
> they are very useful instruments, but they have limitations, and the
> greatest problem is not the meters, but probably the knowledge base of
> those (ab)using them.

You must be new around here. :-)

73, ac6xg

2293. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 22:06:01 UTC
From: David Howard <dhoward@s3c.com>
Message-ID: <dTA3f.2912$Zv5.1345@newssvr25.news.prodigy.net>
Source record: 68989

Kinky antennas?! Gotta love it.

check out this patent on non-fractal kinky antennas:
US6603440: Arrayed-segment loop antenna
http://www.delphion.com/details?pn=US06603440__

I have many EZNEC4 models of just such antennas, and have constructed may of
them
(which makes sense, since I'm the author). By the way, it was challanging to
get this patent
through primarily because of the nearly all encompasing Fractal antenna
patents. But I did it.

David Howard

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:rbtsk11ouecv3l23fflv15vd8lqpf5cm3h@4ax.com...
> On Thu, 13 Oct 2005 00:02:33 -0700, N7ZZT - Eric Oyen
> <n7zzt@127.0.0.1> wrote:
>
> >so, my question is this: whats the real deal with fractal antennas and
why
> >is it that all information that can be found about them so vague in
nature?
>
> Hi Eric,
>
> In a nutshell, the fractalists have hi-graded the field to offer us
> what they say are the characteristics of the "class" of fractals.
>
> Hi-grading is a mining term to mean that only the best ore deposits
> are sought and mined, leaving the rest for waste. A miner might sell
> you Gold Mountain, but to be sure, that mine follows only the vein,
> already tapped out, and the rest of that dung hill is exactly that.
>
> Hence, the fractalists have looked at everything that has a fractal
> form, and discarded the losers. They keep the best performers, polish
> them up for papers and trade shows and present them as the exemplars
> of this new mathematics of RF.
>
> Problem is, that when you ask about that mathematics, and how it fails
> to explain the losers of that same class they discarded, the
> scientific enquiry turns to legal suit pivoting on the point of your
> attempt to poison the commercial market place.
>

> In other words, there is never an explanation of why some are so good,
> according to this new math, nor that other examples of that math are
> so bad (according to that same math). To put it bluntly, they have no
> method to forecast just what it is in the math that points to
> performance. The math, as it always did, points to the shape -
> interesting doodles. Unfortunately, this is not something that you
> can stand up in front of the VC crowd and offer as a way to achieve
> ROI.
>
> On the other hand, in my work has shown a correlation to the math. It
> is a very simple correlation. The more kinks you put in the wire, the
> more resonances appear.
>
> Simply put, examine a standard dipole over a range of frequencies, say
> from 0.1F to 5F of the dipole's resonant F. There are n resonances
> for a dipole. Taking that same length of wire and changing its shape
> to a fractal (or any other for that matter) will produce m resonances.
> You will find that m > n. Also, at the high end of the F scale
> (towards 3F,4F and 5F or more), and for a characteristic of 300 Ohms,
> the antenna becomes quite broadbanded.
>
> This points out one of those "marketing" opportunities so often
> visited upon us here in years past. The claim that fractals offer
> multiband operation AND are broadbanded is true, separately, but the
> claim is often crafted to sound as this is simultaneously achievable.
> Whenever we examined this crafted claim, the arguments were always
> turned away or the claim "explained" by parts, but never as a whole.
> In other words, only the best examples of a fractal ever exhibited
> such dual characteristics, and often barely then and frequently from a
> practical Ham perspective (as to which bands) never very different
> than say an OCF Dipole (which can make the same claims by the way).
>
> So, once you got your foot in the door, understood the basis of
> design, and the return on your investment (roi in less than caps);
> then you could stand back and try to imagine a third iteration
> Sierpinski dragon in your back yard for 2M through 160M. Then the
> blood would drain away, and you would black out.
>
> All such fractal qualities have been investigated by me and reported
> at:
> http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
> This offer of a link rarely fails to put the reader to sleep, so
> indulge only late at night if you prize the day. To my experience,
> absolutely no writer that has offered any interest in fractals has
> ever pursued it more than half a dozen postings. Once you strip away
> all the claims and simply look at the data, and the most general
> characteristics; then there is something to discuss - none seem
> interested even though it goes to the heart of antenna design.
>
> 73's

> Richard Clark, KB7QHC

2294. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 22:34:14 UTC
From: Dave <noone@nowhere.com>
Message-ID: <IYWdnQ_6uapzfdPenZ2dnUVZ_s2dnZ2d@crocker.com>
Source record: 68991

the links no good.

"David Howard" <dhoward@s3c.com> wrote in message
news:dTA3f.2912$Zv5.1345@newssvr25.news.prodigy.net...
> Kinky antennas?! Gotta love it.
>
> check out this patent on non-fractal kinky antennas:
> US6603440: Arrayed-segment loop antenna
> http://www.delphion.com/details?pn=US06603440__
>
> I have many EZNEC4 models of just such antennas, and have constructed may
> of
> them
> (which makes sense, since I'm the author). By the way, it was challanging
> to
> get this patent
> through primarily because of the nearly all encompasing Fractal antenna
> patents. But I did it.
>
> David Howard
>
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:rbtsk11ouecv3l23fflv15vd8lqpf5cm3h@4ax.com...
>> On Thu, 13 Oct 2005 00:02:33 -0700, N7ZZT - Eric Oyen
>> <n7zzt@127.0.0.1> wrote:
>>
>> >so, my question is this: whats the real deal with fractal antennas and
> why
>> >is it that all information that can be found about them so vague in
> nature?
>>
>> Hi Eric,
>>
>> In a nutshell, the fractalists have hi-graded the field to offer us
>> what they say are the characteristics of the "class" of fractals.
>>
>> Hi-grading is a mining term to mean that only the best ore deposits
>> are sought and mined, leaving the rest for waste. A miner might sell
>> you Gold Mountain, but to be sure, that mine follows only the vein,
>> already tapped out, and the rest of that dung hill is exactly that.
>>
>> Hence, the fractalists have looked at everything that has a fractal
>> form, and discarded the losers. They keep the best performers, polish

>> them up for papers and trade shows and present them as the exemplars
>> of this new mathematics of RF.
>>
>> Problem is, that when you ask about that mathematics, and how it fails
>> to explain the losers of that same class they discarded, the
>> scientific enquiry turns to legal suit pivoting on the point of your
>> attempt to poison the commercial market place.
>>
>> In other words, there is never an explanation of why some are so good,
>> according to this new math, nor that other examples of that math are
>> so bad (according to that same math). To put it bluntly, they have no
>> method to forecast just what it is in the math that points to
>> performance. The math, as it always did, points to the shape -
>> interesting doodles. Unfortunately, this is not something that you
>> can stand up in front of the VC crowd and offer as a way to achieve
>> ROI.
>>
>> On the other hand, in my work has shown a correlation to the math. It
>> is a very simple correlation. The more kinks you put in the wire, the
>> more resonances appear.
>>
>> Simply put, examine a standard dipole over a range of frequencies, say
>> from 0.1F to 5F of the dipole's resonant F. There are n resonances
>> for a dipole. Taking that same length of wire and changing its shape
>> to a fractal (or any other for that matter) will produce m resonances.
>> You will find that m > n. Also, at the high end of the F scale
>> (towards 3F,4F and 5F or more), and for a characteristic of 300 Ohms,
>> the antenna becomes quite broadbanded.
>>
>> This points out one of those "marketing" opportunities so often
>> visited upon us here in years past. The claim that fractals offer
>> multiband operation AND are broadbanded is true, separately, but the
>> claim is often crafted to sound as this is simultaneously achievable.
>> Whenever we examined this crafted claim, the arguments were always
>> turned away or the claim "explained" by parts, but never as a whole.
>> In other words, only the best examples of a fractal ever exhibited
>> such dual characteristics, and often barely then and frequently from a
>> practical Ham perspective (as to which bands) never very different
>> than say an OCF Dipole (which can make the same claims by the way).
>>
>> So, once you got your foot in the door, understood the basis of
>> design, and the return on your investment (roi in less than caps);
>> then you could stand back and try to imagine a third iteration
>> Sierpinski dragon in your back yard for 2M through 160M. Then the
>> blood would drain away, and you would black out.
>>
>> All such fractal qualities have been investigated by me and reported
>> at:
>> http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
>> This offer of a link rarely fails to put the reader to sleep, so

>> indulge only late at night if you prize the day. To my experience,
>> absolutely no writer that has offered any interest in fractals has
>> ever pursued it more than half a dozen postings. Once you strip away
>> all the claims and simply look at the data, and the most general
>> characteristics; then there is something to discuss - none seem
>> interested even though it goes to the heart of antenna design.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>

2295. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 22:45:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rrotk15hjc130u01lpl08qliaqaaanvcle@4ax.com>
Source record: 68992

On Thu, 13 Oct 2005 22:34:14 -0000, "Dave" <noone@nowhere.com> wrote:

>the links no good.

Hi Dave,

try:
http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=/netahtml/srchnum.htm&r=1&f=G&l=50&s1=6,603,440.WKU.&OS=PN/6,603,440&RS=PN/6,603,440

73's
Richard Clark, KB7QHC

2296. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 22:50:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <euotk1hpa9mbml7snqsh6vn8kkkqgq6ajs@4ax.com>
Source record: 68993

On Thu, 13 Oct 2005 22:06:01 GMT, "David Howard" <dhoward@s3c.com>
wrote:

>Kinky antennas?! Gotta love it.
As they say here in Ballard

Ya, sure. You betcha.

>check out this patent on non-fractal kinky antennas:
>US6603440: Arrayed-segment loop antenna
>http://www.delphion.com/details?pn=US06603440__

Hi David,

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=/netahtml/s
rchnum.htm&r=1&f=G&l=50&s1=6,603,440.WKU.&OS=PN/6,603,440&RS=PN/6,603,440
is free access, and faster.
>
>I have many EZNEC4 models of just such antennas, and have constructed may of them
>(which makes sense, since I'm the author). By the way, it was challanging to
>get this patent through primarily because of the nearly all encompasing Fractal antenna
>patents. But I did it.

Mail a copy to fraudtenna and wait for the lawyer's letters. Winter
is coming and you can pin them to the wall for extra insulation.

73's
Richard Clark, KB7QHC

2297. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 23:00:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hbptk1lg2s34t1hipl36jj1dvu6jkm1g33@4ax.com>
Source record: 68994

On Thu, 13 Oct 2005 15:02:37 -0700, Jim Kelley <jwkelley@nospam.edu>
wrote:

>You must be new around here. :-)

Hi Jim,

Give Owen more credit than that, after all he knows at least one
prolific poster:
>>I expect the argument to twist an turn, to focus on everything but the assertions

As long as you keep on the message, then that profligacy twists and
turns the postings like yellowing leaves starved of nourishment. A
faint rustle of reality causes them to fall unnoticed to the way-side.

73's
Richard Clark, KB7QHC

2298. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-13 23:01:44 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dimput$dh0$1@news.service.uci.edu>
Source record: 68995

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Cecil Moore wrote:
>>
>>> Z0 didn't change. The load didn't change. Therefore, the
>>> SWR didn't change. What exactly do you think changed?
>>
>>
>> I think the circuit changed. Don't you?
>
>
> The circuit changed without changing the forward power,
> reflected power, and SWR so nothing of interest to the
> present topic (V/I ratio) changed.
>
> Do you know what dictates the SWR in a distributed network?
> Certainly not the length of the feedline or the removal
> of a tuner (assuming lossless conditions).

Well, it's certainly true that both circuits are missing the 50 ohm
impedance discontinuity in the middle, which is at least one of the
"present topics" (and my point).

I'll just go ahead and say what you really want me to say:

You're good enough, you're smart enough, and doggone it, people like you!

:-)

ac6xg

2299. Re: Any experience using a Wonderpole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:08:55 UTC
From: Jack <Jack@home.net>
Message-ID: <645dd$434ef719$8b372f7d$11056@ALLTEL.NET>
Source record: 68996

I would love to have a BIG OLE WONDERPOLE FOR MYSELF!

Any offers boys?

dxAce
Michigan
USA
"greg knapp 5" <gknapp@freshrain.org> wrote in message
news:h56dneQ3QPo8O9DeRVn-vQ@speakeasy.net...
> I was seriously thinking of plunking down the $250 plus for the 40-foot
> Wonderpole (www.wonderpole.com) to support parallel dipoles (probably 14
> gauge stranded copper wire dipoles cut for 80, 40, and 20 meters), fed
with
> 600 ohm open wire, but I am concerned about:
>
> 1.. Is the pole strong enough to hold up 80, 40, and 20 meter dipoles,
> especially the top section?
> 2.. Do they, like most pushup fiberglass antenna, collapse or come loose
> over time?
> 3.. How do they stand up over time.I'd like to use it in a permanent
> installation.
> 4.. Do they need to be guyed (how badly do they flop around in 15-30 mph
> wind)?
> 5.. How much overlap do you leave between the sections for extra
strength?
> 6.. Are they a good company to deal with?
> I am thinking about mounting it on top of my 45 foot light-weight steel
> crank-up tower (no beam on it) to get my dipoles up 80 feet or so.
>
> I called the company in Oregon (I believe), and they didn't know how it
> would work in such an application and the guy who is the mechanical expert
> never returned my call.
>
> If anyone has any ACTUAL experience using a 40-foot wonderpole you could
> share with me, it would be much appreciated.
>
> BTW, the reason for the multiple wires is to broaden the narrow pattern a
> single 80 meter dipole would exhibit on on the higher frequency bands
(20-10
> meters). But if it won't support it, I'll probably go with a single 80
meter
> dipole for now.
>
> Thanks, and 73,
>

> Greg, N6GK
>
>

2300. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:11:34 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <WIC3f.16338$6e1.8578@newssvr14.news.prodigy.com>
Source record: 68997

Dave wrote:
> i'm not agreeing with how you assume the 50 ohm impedance of the meter out
> of the circuit.

I don't think you understand what I was saying. It takes a
certain length of feedline to establish a Z0 environment
for the forward and reverse traveling TEM waves, i.e. to
force Vfor/Ifor = Vref/Iref = Z0.

> and i am not agreeing that there should be reflected power
> measured by the meter in the case of the 50 ohm load on the end of a 1/2
> wave 75 ohm line.

I never said it "should" measure that reflected power. What I
said is if it doesn't measure the reflected power that exists,
it is not giving a valid measurement of reflected power. A properly
calibrated meter will indeed measure the reflected power that exists.
--
73, Cecil http://www.qsl.net/w5dxp

2301. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:13:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <DKC3f.16339$6e1.13070@newssvr14.news.prodigy.com>
Source record: 68999

Richard Clark wrote:
> Any error of misunderstanding Owen's post is entirely your own.

Thanks, Richard, that really helps a lot.
--
73, Cecil http://www.qsl.net/w5dxp

2302. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:13:29 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <U9KdnZu9CuxoatPeRVn-iA@comcast.com>
Source record: 68998

"Cecil Moore" <mycall@arrl.net> wrote in message
news:xgv3f.860$q%.821@newssvr12.news.prodigy.com...
>
> The actual SWR on a lossless line doesn't change. Yet, in another
> posting, I showed that moving the Bird 1/4WL closer to the load
> caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
> could both results possibly be right?
> --
> 73, Cecil http://www.qsl.net/w5dxp

The Bird does not know squat about transmission lines, foreward, or reflected. It only cares about impedance. If you connect a 50 Ohm load to it through 1/4 wave of 75 Ohm coax, the impedance the Bird sees will be transformed to 112.5 Ohms; hence the 2.25 SWR. (Actually, a 2.25:1 impedance ratio)

I have a computer simulation of that type of meter, which lets me do things you can not do in the real world, for instance having a 50 KW source on each side of the meter. It can separate out the signals in the two directions of transmission, but only when it is terminated in 50 Ohms, when there are no reflections.

Tam/WB2TT

2303. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:20:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <VQC3f.16341$6e1.4698@newssvr14.news.prodigy.com>
Source record: 69000

Jim Kelley wrote:
> Well, it's certainly true that both circuits are missing the 50 ohm
> impedance discontinuity in the middle, which is at least one of the
> "present topics" (and my point).

Jim, if the ratio of net voltage to net current is already 50 ohms,
then your Bird "impedance discontinuity" should cause that to change
but there is no evidence whatsoever that it changes anything. Conclusion:
The insertion of the Bird does not appreciably change the V/I ratio.
--
73, Cecil http://www.qsl.net/w5dxp

2304. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:24:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <JUC3f.16342$6e1.10998@newssvr14.news.prodigy.com>
Source record: 69001

Owen Duffy wrote:
> I fully expected someone to object, not only to object, but to do so
> without any original experimental evidence ...

Owen, there was absolutely no reason for anyone else to do any
additional experiments. Your own experiment proved that the Bird
wattmeter was ignoring the 4.1667 watts of reflected energy flowing
through it when installed in the 75 ohm environment. You proved
exactly the opposite of what you were trying to prove.
--
73, Cecil http://www.qsl.net/w5dxp

2305. What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:27:14 UTC
From: crb <anon@net.com>
Message-ID: <dimtor0skl@enews1.newsguy.com>
Source record: 69004

Is it only valid for AM and FM measurements?

I know its receiver sensitivity.

Is it Signal divided by Noise with distortion??

12 dB SINAD means what? The signal is 12 dB greater than noise and
distortion or
is it more complicated than that?

2306. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:30:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <M_C3f.16345$6e1.10969@newssvr14.news.prodigy.com>
Source record: 69002

Tam/WB2TT wrote:

> "Cecil Moore" <mycall@arrl.net> wrote:>
>>The actual SWR on a lossless line doesn't change. Yet, in another
>>posting, I showed that moving the Bird 1/4WL closer to the load
>>caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
>>could both results possibly be right?
>
> The Bird does not know squat about transmission lines, foreward, or
> reflected. It only cares about impedance. If you connect a 50 Ohm load to it
> through 1/4 wave of 75 Ohm coax, the impedance the Bird sees will be
> transformed to 112.5 Ohms; hence the 2.25 SWR. (Actually, a 2.25:1 impedance
> ratio)

Yes, that's exactly what I said in the other posting. But some
people seem to believe that inserting a Bird into a transmission
line with a Z0 other than 50 ohms magically changes it to a 50
ohm environment. The 40mm of transmission line inside the Bird
is supposed to accomplish that miracle.
--
73, Cecil http://www.qsl.net/w5dxp

2307. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:37:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5tutk1pm8t5959iv6u60djcqdaf99akmdm@4ax.com>
Source record: 69003

On Fri, 14 Oct 2005 00:24:09 GMT, Cecil Moore <mycall@arrl.net> wrote:
> Your own experiment proved that the Bird wattmeter was ignoring
>the 4.1667 watts of reflected energy flowing through it
This fiction is entirely your own invention and trying to put Owen's frame around your cartoon does not elevate this nonsense to art.

You have done nothing to offer any substance to your claim except the time worn tradition of repetition, deflection, and ignoring the observables by insisting error exists where it is not.

What reflections exist, exist at the input port of the Bird which is 50 Ohms by design, and which is attached to a 50 Ohm load by deliberate selection. The Bird's response confirms the load, and the rest stands on 50 years of Bird quality construction (he's not using the poorer model with PL-259s).

Owen's work stands on its own, despite your chatter of a nabob of negativity (apologies to our ex-VP-ex-convict of the GOP).

2308. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:51:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <WhD3f.16349$6e1.1790@newssvr14.news.prodigy.com>
Source record: 69005

Richard Clark wrote:

> On Fri, 14 Oct 2005 00:24:09 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>Your own experiment proved that the Bird wattmeter was ignoring
>>the 4.1667 watts of reflected energy flowing through it
>
> This fiction is entirely your own invention ...

Sorry, I am just quoting Owen's results. There was 4.1667 watts
of reflected energy flowing back through the Bird. The Bird
indicated zero watts. That's an infinite percentage error on
reflected power for the Bird and proves my point that a 50 ohm
wattmeter used in a 75 ohm environment is like using a hammer
on a screw. To paraphrase: when the only tool one has is a 50
ohm Bird, every Z0 environment looks like 50 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

2309. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:53:03 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PjD3f.16351$6e1.13506@newssvr14.news.prodigy.com>
Source record: 69006

Richard Clark wrote:
> What reflections exist, exist at the input port of the Bird which is
> 50 Ohms by design, and which is attached to a 50 Ohm load by
> deliberate selection.

But the 50 ohm load is attached through a piece of 75 ohm coax
supporting an SWR of 1.5:1. If you don't realize that fact, I
feel sorry for you.
--
73, Cecil http://www.qsl.net/w5dxp

2310. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 00:58:35 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <n50uk1lssrd0f80mgbjso0v1akbgtci2bk@4ax.com>
Source record: 69007

On Thu, 13 Oct 2005 17:27:14 -0700, crb <anon@net.com> wrote:

>Is it only valid for AM and FM measurements?
>
>I know its receiver sensitivity.
>
>Is it Signal divided by Noise with distortion??
>
>12 dB SINAD means what? The signal is 12 dB greater than noise and
>distortion or
>is it more complicated than that?

Thats about it.

It is the ratio of signal to noise and distortion, and it is measured by setting up a test where the receiver produces output from a SSG (typically for a 1KHz audio output) and notching out the 1KHz output to measure the noise and distortion wrt the filtered 1KHz output.

I wrote a handy little calculator for converting rx senstivity metrics, it is at http://www.vk1od.net/sc/RxSensitivityCalc.htm . The conversions assume that the signal distortion component of the Noise+Distortion is zero, in other words that the demodulation and amplification process is linear.

SINAD is used widely to express the sensitivity of AM, FM and SSB receivers. It is a much better method of measuring FM receivers than the older "quieting" measurement.

Owen
--

2311. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 01:03:00 UTC
From: David <groups@orbitcoms.com>
Message-ID: <8tD3f.17277$U51.15549@news-server.bigpond.net.au>
Source record: 69008

Does anyone happen to know where there is a circuit diagram for a home
brew SINAD meter ?

Owen Duffy wrote:
> On Thu, 13 Oct 2005 17:27:14 -0700, crb <anon@net.com> wrote:
>
>
>>Is it only valid for AM and FM measurements?
>>
>>I know its receiver sensitivity.
>>
>>Is it Signal divided by Noise with distortion??
>>
>>12 dB SINAD means what? The signal is 12 dB greater than noise and
>>distortion or
>>is it more complicated than that?
>
>
> Thats about it.
>
> It is the ratio of signal to noise and distortion, and it is measured
> by setting up a test where the receiver produces output from a SSG
> (typically for a 1KHz audio output) and notching out the 1KHz output
> to measure the noise and distortion wrt the filtered 1KHz output.
>
> I wrote a handy little calculator for converting rx senstivity
> metrics, it is at http://www.vk1od.net/sc/RxSensitivityCalc.htm . The
> conversions assume that the signal distortion component of the
> Noise+Distortion is zero, in other words that the demodulation and
> amplification process is linear.
>
> SINAD is used widely to express the sensitivity of AM, FM and SSB
> receivers. It is a much better method of measuring FM receivers than
> the older "quieting" measurement.
>
> Owen
> --

2312. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 01:08:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ms0uk1t66g0njqfto4kv2g6v2svi6qofa8@4ax.com>
Source record: 69009

On Fri, 14 Oct 2005 00:51:02 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Sorry, I am just quoting Owen's results.
There is nothing in his entire scope of postings that presents:
>There was 4.1667 watts of reflected energy flowing back through the Bird.
Which is absurd.

This is simply more of the same attempt of your trying to cram a
trade-unionist pamphlet into the frame built by Owen. It is not only
the wrong topic, it doesn't even fit.

Owen has demonstrated quite clearly that your assertion
>It takes a certain length of feedline to establish a Z0 environment
is blarney from one end of your feedline to the other. Another way of
saying mythbusted, or if you have grandkids, they would say
you've been served!

2313. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 01:11:02 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <4b1uk1lg0uoes59g60irk8scvvbk9l4p0s@4ax.com>
Source record: 69010

On Fri, 14 Oct 2005 01:03:00 GMT, David <groups@orbitcoms.com> wrote:

>Does anyone happen to know where there is a circuit diagram for a home
>brew SINAD meter ?

You should also consider searching the net for software that will use
the PC sound card to make a SINAD measurement.

Owen
--

2314. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 01:11:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cb1uk1dct61554ojkd17umidb77utfre2r@4ax.com>
Source record: 69011

On Fri, 14 Oct 2005 00:53:03 GMT, Cecil Moore <mycall@arrl.net> wrote:
>I feel sorry for you.
You and Mother Theresa - did the Cardinals miss electing you too?
Don't fret, maybe there's work available as Vatican Bat Boy.

2315. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 01:44:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <din2h2$s7l$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69013

"Owen Duffy" wrote
> Entirely OT:
>
> Reg, you are way to impatient. There are very few Australian Shiraz
> that should be taken in less than three years.
=====================================
I'm 80 next month.
=====================================
>
> I can't recall the "instructions" on the back of the bottle that
tell
> one what to drink it with and when to drink it, but Banrock Station
> produce "everday drinking" quality reds that should stand a few
years
> cellaring,

===
The bottle was chosen at random by my daughter from the supermarket
shelf. Following your message I retrieved it from the trash bin.

The label did not mention a 'drink by' date. But it does mention eat
with a mature blue cheese which is a firm favorite of mine. I've long
given up worrying about cholesterol.
==================================
>
> IIRC, the labels carry a bit of a story on their wildlife refuge, do
> they get to tell you what to eat with it?
>
==================================
Yes. I looked up Banrock Station's website about their contributions,
internationally, towards preservation of wetlands, nature reserves,
and the many forms of wildlife therein. There's even a photograph of
a water snail. Very interesting.

I guess you are far more knowledgeable about wines than I am. Thanks
for drawing my attention to the bottle.

Reg, G4FGQ

2316. Re: Any experience using a Wonderpole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 01:45:51 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <din2kb$j1i$1@mailhub227.itcs.purdue.edu>
Source record: 69012

Unless you need the retracting feature, don't fool around with those baby poles and buy one of the mothers featured at
http://www.excelsails.com/flagpole.htm
If you buy one of their 40 feet models, you get a rustic rod with a butt diameter of 5.25" tapering to 2.5" at the top. Compare this with the puny wonderpole's dimensions of 2" and 0.75" respectively.

"Jack" <Jack@home.net> wrote in message
news:645dd$434ef719$8b372f7d$11056@ALLTEL.NET...
>I would love to have a BIG OLE WONDERPOLE FOR MYSELF!
>
> Any offers boys?
>
> dxAce
> Michigan
> USA
> "greg knapp 5" <gknapp@freshrain.org> wrote in message
> news:h56dneQ3QPo8O9DeRVn-vQ@speakeasy.net...
>> I was seriously thinking of plunking down the $250 plus for the 40-foot
>> Wonderpole (www.wonderpole.com) to support parallel dipoles (probably 14
>> gauge stranded copper wire dipoles cut for 80, 40, and 20 meters), fed
> with
>> 600 ohm open wire, but I am concerned about:
>>
>> 1.. Is the pole strong enough to hold up 80, 40, and 20 meter dipoles,
>> especially the top section?
>> 2.. Do they, like most pushup fiberglass antenna, collapse or come
>> loose
>> over time?
>> 3.. How do they stand up over time.I'd like to use it in a permanent
>> installation.
>> 4.. Do they need to be guyed (how badly do they flop around in 15-30
>> mph
>> wind)?
>> 5.. How much overlap do you leave between the sections for extra
> strength?
>> 6.. Are they a good company to deal with?
>> I am thinking about mounting it on top of my 45 foot light-weight steel
>> crank-up tower (no beam on it) to get my dipoles up 80 feet or so.
>>
>> I called the company in Oregon (I believe), and they didn't know how it
>> would work in such an application and the guy who is the mechanical
>> expert
>> never returned my call.

>>
>> If anyone has any ACTUAL experience using a 40-foot wonderpole you could
>> share with me, it would be much appreciated.
>>
>> BTW, the reason for the multiple wires is to broaden the narrow pattern a
>> single 80 meter dipole would exhibit on on the higher frequency bands
> (20-10
>> meters). But if it won't support it, I'll probably go with a single 80
> meter
>> dipole for now.
>>
>> Thanks, and 73,
>>
>> Greg, N6GK
>>
>>
>
>

2317. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 01:55:28 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <cp3uk1pkvp4si883u4v8gtpa1rscko7p65@4ax.com>
Source record: 69014

On Fri, 14 Oct 2005 01:44:02 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I guess you are far more knowledgeable about wines than I am. Thanks
>for drawing my attention to the bottle.

Not at all to both.

But, I do enjoy a glass of red... unfortunately my feet are getting
less happy about that.

Owen
--

2318. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 02:09:06 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <6rE3f.13526$vw6.1680@newsread1.news.atl.earthlink.net>
Source record: 69015

"David" <groups@orbitcoms.com> wrote in message
news:8tD3f.17277$U51.15549@news-server.bigpond.net.au...
> Does anyone happen to know where there is a circuit diagram for a home
> brew SINAD meter ?
>
>
While not homebrew , here is where you can find a manual and schematic for a
sinad meter.

http://www.repeater-builder.com/other-mfrs/sinadd.pdf

2319. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 02:23:51 UTC
From: David <groups@orbitcoms.com>
Message-ID: <XEE3f.17326$U51.4133@news-server.bigpond.net.au>
Source record: 69016

Thanks, that's what I was after.

Ralph Mowery wrote:
> "David" <groups@orbitcoms.com> wrote in message
> news:8tD3f.17277$U51.15549@news-server.bigpond.net.au...
>
>>Does anyone happen to know where there is a circuit diagram for a home
>>brew SINAD meter ?
>>
>>
>
> While not homebrew , here is where you can find a manual and schematic for a
> sinad meter.
>
> http://www.repeater-builder.com/other-mfrs/sinadd.pdf
>
>
>

2320. Re: Any experience using a Wonderpole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 03:13:35 UTC
From: greg knapp 5 <gknapp@freshrain.org>
Message-ID: <PP-dnf-Oe8X_v9LeRVn-rQ@speakeasy.net>
Source record: 69017

Wow, great pole, but....
Gee, only $1100.00 for a 40 footer! That's out of my league for a 40 foot
fiberglass pole!

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:din2kb$j1i$1@mailhub227.itcs.purdue.edu...
> Unless you need the retracting feature, don't fool around with those baby
> poles and buy one of the mothers featured at
> http://www.excelsails.com/flagpole.htm
> If you buy one of their 40 feet models, you get a rustic rod with a butt
> diameter of 5.25" tapering to 2.5" at the top. Compare this with the puny
> wonderpole's dimensions of 2" and 0.75" respectively.
>
> "Jack" <Jack@home.net> wrote in message
> news:645dd$434ef719$8b372f7d$11056@ALLTEL.NET...
>>I would love to have a BIG OLE WONDERPOLE FOR MYSELF!
>>
>> Any offers boys?
>>
>> dxAce
>> Michigan
>> USA
>> "greg knapp 5" <gknapp@freshrain.org> wrote in message
>> news:h56dneQ3QPo8O9DeRVn-vQ@speakeasy.net...
>>> I was seriously thinking of plunking down the $250 plus for the 40-foot
>>> Wonderpole (www.wonderpole.com) to support parallel dipoles (probably 14
>>> gauge stranded copper wire dipoles cut for 80, 40, and 20 meters), fed
>> with
>>> 600 ohm open wire, but I am concerned about:
>>>
>>> 1.. Is the pole strong enough to hold up 80, 40, and 20 meter dipoles,
>>> especially the top section?
>>> 2.. Do they, like most pushup fiberglass antenna, collapse or come
>>> loose
>>> over time?
>>> 3.. How do they stand up over time.I'd like to use it in a permanent
>>> installation.
>>> 4.. Do they need to be guyed (how badly do they flop around in 15-30
>>> mph
>>> wind)?
>>> 5.. How much overlap do you leave between the sections for extra
>> strength?
>>> 6.. Are they a good company to deal with?
>>> I am thinking about mounting it on top of my 45 foot light-weight steel

>>> crank-up tower (no beam on it) to get my dipoles up 80 feet or so.
>>>
>>> I called the company in Oregon (I believe), and they didn't know how it
>>> would work in such an application and the guy who is the mechanical
>>> expert
>>> never returned my call.
>>>
>>> If anyone has any ACTUAL experience using a 40-foot wonderpole you could
>>> share with me, it would be much appreciated.
>>>
>>> BTW, the reason for the multiple wires is to broaden the narrow pattern
>>> a
>>> single 80 meter dipole would exhibit on on the higher frequency bands
>> (20-10
>>> meters). But if it won't support it, I'll probably go with a single 80
>> meter
>>> dipole for now.
>>>
>>> Thanks, and 73,
>>>
>>> Greg, N6GK
>>>
>>>
>>
>>
>
>

2321. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 03:22:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <din89dbpq1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 69018

"Cecil Moore" wrote
> The insertion of the Bird does not appreciably change the V/I ratio.
>
==========
Cec,

I have tried to avoid entering this argument.

But it appears to me that ALL SWR meters work on the principle of a common, identical, take off point for both voltage and current samples.

Therefore, anything inside the meter which could constitute a transmission line, no matter how long or short, if it separates the two effective take-off points, it is a small source of error and its actual length otherwise plays no part in the measuring process.

(I mean its actual length is not included in the basic design calculations, except perhaps in rare instances to minimise the error.)

(The error arises from a phase-shift error in tapping off the current sample. There may be no problem with defining the location of the voltage sample. All depends on meter construction and the tapping methods which vary but do not affect the basic design principle of a common tapping point.)

I am not trolling. Please read very carefully. Try to limit yourself to HF and VHF. Do you agree? Yes or No?

Reg, G4FGQ.

2322. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 04:09:06 UTC
From: David Howard <dhoward@s3c.com>
Message-ID: <CbG3f.16464$6e1.7855@newssvr14.news.prodigy.com>
Source record: 69019

Sorry for the link to delphion ... it works for me, but then I have an
account, and my web browser auto logs me in --- ooops.

No worries about the cold here --- I'm in sunny N. California.

David Howard

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:euotk1hpa9mbml7snqsh6vn8kkkqgq6ajs@4ax.com...
> On Thu, 13 Oct 2005 22:06:01 GMT, "David Howard" <dhoward@s3c.com>
> wrote:
>
> >Kinky antennas?! Gotta love it.
> As they say here in Ballard
>
> Ya, sure. You betcha.
>
> >check out this patent on non-fractal kinky antennas:
> >US6603440: Arrayed-segment loop antenna
> >http://www.delphion.com/details?pn=US06603440__
>
> Hi David,
>
>
http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=/netahtml/s
rchnum.htm&r=1&f=G&l=50&s1=6,603,440.WKU.&OS=PN/6,603,440&RS=PN/6,603,440
> is free access, and faster.
> >
> >I have many EZNEC4 models of just such antennas, and have constructed may
of them
> >(which makes sense, since I'm the author). By the way, it was challanging
to
> >get this patent through primarily because of the nearly all encompasing
Fractal antenna
> >patents. But I did it.
>
> Mail a copy to fraudtenna and wait for the lawyer's letters. Winter
> is coming and you can pin them to the wall for extra insulation.
>
> 73's
> Richard Clark, KB7QHC

2323. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 05:31:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <daguk1lpieeh30jjdd4danb4p528dhmj6b@4ax.com>
Source record: 69020

On Fri, 14 Oct 2005 04:09:06 GMT, "David Howard" <dhoward@s3c.com>
wrote:

>No worries about the cold here --- I'm in sunny N. California.

Hi David,

So I noticed on the patent papers. I also noted the assignee is in
Half Moon Bay. When I was a kid I lived a few miles north of there in
Pacific Manor, later changed to Pacifica, and probably now aggregated
into some megopolis - if the cliffs haven't dissolved away to leave it
in the surf (Highway 1 used to slip beneath the waves with each minor
earthquake - we were only a mile or so from the San Andreas).

73's
Richard Clark, KB7QHC

2324. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 05:37:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <90huk19kep3j8km04og4901qsjdq7i3g0b@4ax.com>
Source record: 69021

On Fri, 14 Oct 2005 01:55:28 GMT, Owen Duffy <owen@no.where> wrote:

>But, I do enjoy a glass of red... unfortunately my feet are getting
>less happy about that.

Hi Owen,

Gout?

73's
Richard Clark, KB7QHC

2325. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 05:57:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <94iuk1lcti9ebelcuhmo6k37ol3fju214g@4ax.com>
Source record: 69022

On Thu, 13 Oct 2005 22:37:43 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>Gout?

Of course.

Owen
--

2326. Re: Aluminum tubing?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 06:34:14 UTC
From: kashe@sonic.net
Message-ID: <8akuk19nasdmc1hhcea6o86g965c6g2kp4@4ax.com>
Source record: 69023

On Thu, 13 Oct 2005 14:58:53 +0200, "Roger Conroy"
<rogerconroy@nospam.hotmail.com> wrote:

>
>"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
>news:hm83f.133870$qY1.14837@bgtnsc04-news.ops.worldnet.att.net...
>> Roger Conroy wrote:
>>
>> [snip]
>>
>>>>>>>>Why do you guys in the US always omit the "i" in aluminium ?
>>>>
>>>>
>>>>You mean the second "i"? Probably because we spell it correctly:
>>>>Aluminum.
>>>>;~)
>>>
>>>
>>> But you do it ONLY to Alumin(i)um. What about Lithium, Barium, Chromium,
>>> Ruthenium, Titanium, Uranium, and so on......?
>>
>> Hmmmm, does "so on" also include Lanthanum, Molybdenum, Platinum, and
>> Tantalum?
>>
>> 73,
>> Gene
>> W4SZ
>
>We're in complete agreement about those too.
>We have 2 "groups" of metals that differ in having "um" or "ium" endings. It
>is only Alumin(i)um that "switches groups" in crossing the Atlantic. When,
>how and why did it happen?
>
>The other one that is a consistent transatlantic difference is the group of
>words that include colo(u)r, odo(u)r, favo(u)r, hono(u)r..... I can't think
>of any "equivalent" anomalies there. ISTR hearing a radio show on language
>that mentioned that there is at least one variety of North American English
>that has kept the "u" - but I just can't remember who/where that is.
>
>73
>Roger ZR3RC
>
>

Hollywood -- glamour.

2327. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 08:19:05 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <CQJ3f.1$v_5.0@dukeread07>
Source record: 69024

Dave wrote:

> the links no good.

try it again. it worked perfectly here.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

2328. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 11:06:57 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <ljM3f.39197$q81.11651@trnddc06>
Source record: 69025

It is the ratio of (Signal + Noise+Distortion) to (Noise+Distortion) as measured at the receiver audio output. It is measured using an RMS-reading AC voltmeter , typically with a 1Khz modulation tone on the signal applied to the receiver under test.

First you measure the audio signal out of the receiver using the AC RMS meter. Then you apply a notch filter at the modulation frequency and measure the residual noise+distortion, again using the RMS AC voltmeter. SINAD is the ratio of the two measurements.

Joe
W3JDR

"crb" <anon@net.com> wrote in message news:dimtor0skl@enews1.newsguy.com...
> Is it only valid for AM and FM measurements?
>
> I know its receiver sensitivity.
>
> Is it Signal divided by Noise with distortion??
>
> 12 dB SINAD means what? The signal is 12 dB greater than noise and
> distortion or
> is it more complicated than that?

2329. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 11:40:02 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <M6CdnRbEePveBNLenZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 68826

Gee! I was born with gout! My parents were not drinkers. My doctor says
it is genetic.

I did not know that red wine caused gout! :-)

Actually, it spikes uric acid. Gout is the inability of my kidneys to
eliminate the uric acid as waste.

Richard Clark wrote:
> On Fri, 14 Oct 2005 01:55:28 GMT, Owen Duffy <owen@no.where> wrote:
>
>
>>But, I do enjoy a glass of red... unfortunately my feet are getting
>>less happy about that.
>
>
> Hi Owen,
>
> Gout?
>
> 73's
> Richard Clark, KB7QHC

2330. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 11:44:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ec5vk11kagu5qfoeltaf8f30h10vbrds22@4ax.com>
Source record: 68827

On Fri, 14 Oct 2005 00:58:35 GMT, Owen Duffy <owen@no.where> wrote:

>It is the ratio of signal to noise and distortion, and it is measured
>by setting up a test where the receiver produces output from a SSG
>(typically for a 1KHz audio output) and notching out the 1KHz output
>to measure the noise and distortion wrt the filtered 1KHz output.
>

That should be:
It is the ratio of signal and noise and distortion to noise and distortion, and it is measured by setting up a test where the receiver produces output from a SSG (typically for a 1KHz audio output) and notching out the 1KHz output to measure the unfiltered output wrt the noise and distortion.

I should also have mentioned the EIA test requires the receiver be set to rated output with 1mV RF input at 60% of rated modulation, then the RF output reduced to find the input level for 12dB SINAD.

You could measure it with soething like a HP334A Distortion Analyser, but it is pretty tedious if you are trying to find the RF input for a particular SINAD. Hence you see boxes that have an AGC controlled amplifier deliving a constant voltage to the filter block. I have a Motorola one (R1013A) that works ok, there were also Sinadders. Even more convenient are the ones integrated into a communications monitor. I don't believe these boxes do true RMS measurements.

An alternative if you have a standalone SSG and want to do SINAD measurement is to use a PC sound card and software that does an FFT and calculates the SINAD (using true RMS measurement). Spectrum Lab does it, its free, but it is such a flexible / general tool, it may be a bit daunting to get it working. The SpectrumLab menu "Quick Settings / Rx Equipment Tests / SINAD test" is a quick path to setup... but it is still a quite complex package. A whole lot better than the style of a HP334A though! SL is at http://www.qsl.net/dl4yhf/spectra1.html .

Owen
--

2331. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 12:08:56 UTC
From: Dave <noone@nowhere.com>
Message-ID: <F5idnVhkmq98AtLeRVn-uQ@crocker.com>
Source record: 68828

it gets me to their web site, but says:

"Details for publication US06603440 were not found.
Please use your browser's "back" button to return to the previous page, or
follow one of the links on this page."

"David Howard" <dhoward@s3c.com> wrote in message
news:CbG3f.16464$6e1.7855@newssvr14.news.prodigy.com...
> Sorry for the link to delphion ... it works for me, but then I have an
> account, and my web browser auto logs me in --- ooops.
>
> No worries about the cold here --- I'm in sunny N. California.
>
> David Howard
>
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:euotk1hpa9mbml7snqsh6vn8kkkqgq6ajs@4ax.com...
>> On Thu, 13 Oct 2005 22:06:01 GMT, "David Howard" <dhoward@s3c.com>
>> wrote:
>>
>> >Kinky antennas?! Gotta love it.
>> As they say here in Ballard
>>
>> Ya, sure. You betcha.
>>
>> >check out this patent on non-fractal kinky antennas:
>> >US6603440: Arrayed-segment loop antenna
>> >http://www.delphion.com/details?pn=US06603440__
>>
>> Hi David,
>>
>>
> http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=/netahtml
/srchnum.htm&r=1&f=G&l=50&s1=6,603,440.WKU.&OS=PN/6,603,440&RS=PN/6,603,440
>> is free access, and faster.
>> >
>> >I have many EZNEC4 models of just such antennas, and have constructed
>> >may
> of them
>> >(which makes sense, since I'm the author). By the way, it was
>> >challanging
> to
>> >get this patent through primarily because of the nearly all encompasing
> Fractal antenna

>> >patents. But I did it.
>>
>> Mail a copy to fraudtenna and wait for the lawyer's letters. Winter
>> is coming and you can pin them to the wall for extra insulation.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>

2332. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 12:11:10 UTC
From: Dave <noone@nowhere.com>
Message-ID: <JdadnVYAw7z6PdLeRVn-tg@crocker.com>
Source record: 68829

"Cecil Moore" <mycall@arrl.net> wrote in message
news:WIC3f.16338$6e1.8578@newssvr14.news.prodigy.com...
> Dave wrote:
>> i'm not agreeing with how you assume the 50 ohm impedance of the meter
>> out of the circuit.
>
> I don't think you understand what I was saying. It takes a
> certain length of feedline to establish a Z0 environment
> for the forward and reverse traveling TEM waves, i.e. to
> force Vfor/Ifor = Vref/Iref = Z0.

and what the experiment pointed out was that the length of feedline attached
is immaterial, the 50ohm environment is established within the meter itself
and it doesn't care what the length of feedline attached is.

2333. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 12:12:37 UTC
From: Dave <noone@nowhere.com>
Message-ID: <NIednV2m0M0jPdLenZ2dnUVZ_sudnZ2d@crocker.com>
Source record: 68830

"Cecil Moore" <mycall@arrl.net> wrote in message
news:M_C3f.16345$6e1.10969@newssvr14.news.prodigy.com...
> Tam/WB2TT wrote:
>
>> "Cecil Moore" <mycall@arrl.net> wrote:>
>>>The actual SWR on a lossless line doesn't change. Yet, in another
>>>posting, I showed that moving the Bird 1/4WL closer to the load
>>>caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
>>>could both results possibly be right?
>>
>> The Bird does not know squat about transmission lines, foreward, or
>> reflected. It only cares about impedance. If you connect a 50 Ohm load to
>> it through 1/4 wave of 75 Ohm coax, the impedance the Bird sees will be
>> transformed to 112.5 Ohms; hence the 2.25 SWR. (Actually, a 2.25:1
>> impedance ratio)
>
> Yes, that's exactly what I said in the other posting. But some
> people seem to believe that inserting a Bird into a transmission
> line with a Z0 other than 50 ohms magically changes it to a 50
> ohm environment. The 40mm of transmission line inside the Bird
> is supposed to accomplish that miracle.

yep, that is true, and that is what the experiment shows. the 50 ohm load,
even though it is caused by a 75 ohm line, is far enough away from the
sensor that it sees it as 50 ohms. so the 'miracle' length is obviously
less than 40mm.

2334. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 12:14:07 UTC
From: Dave <noone@nowhere.com>
Message-ID: <arGdnXMseciFPNLeRVn-2A@crocker.com>
Source record: 68831

"Cecil Moore" <mycall@arrl.net> wrote in message
news:JUC3f.16342$6e1.10998@newssvr14.news.prodigy.com...
> Owen Duffy wrote:
>> I fully expected someone to object, not only to object, but to do so
>> without any original experimental evidence ...
>
> Owen, there was absolutely no reason for anyone else to do any
> additional experiments. Your own experiment proved that the Bird
> wattmeter was ignoring the 4.1667 watts of reflected energy flowing
> through it when installed in the 75 ohm environment. You proved
> exactly the opposite of what you were trying to prove.

ah, but the sensor isn't in a 75 ohm environment, it is in a 50 ohm
environment inside the meter and sees a 50 ohm load.

2335. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 12:17:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dio7kv$f0t$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68832

```
>
> I did not know that red wine caused gout! :-)
>
It's port wine and pheasant which causes gout.
```

2336. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 12:55:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xVN3f.2980$7h7.2723@newssvr21.news.prodigy.com>
Source record: 68833

Richard Clark wrote:
> On Fri, 14 Oct 2005 00:51:02 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>
>>Sorry, I am just quoting Owen's results.
>
> There is nothing in his entire scope of postings that presents:
>
>>There was 4.1667 watts of reflected energy flowing back through the Bird.
>
> Which is absurd.

The SWR on the 75 ohm line is 1.5:1. If 100 watts is delivered to
the load, there's 4.1667 watts of energy reflected from the load
and flowing back through the Bird. The Bird doesn't see it because
the Bird is calibrated for the wrong Z0.

> Owen has demonstrated quite clearly that your assertion
>
>>It takes a certain length of feedline to establish a Z0 environment
>
> is blarney from one end of your feedline to the other.

Really? They why bother with characteristic impedance at all?
If Z0 doesn't establish a Z0 environment, then all transmission
lines are just alike and transmission theory is hogwash.
--
73, Cecil http://www.qsl.net/w5dxp

2337. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 13:07:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <E4O3f.2987$7h7.2358@newssvr21.news.prodigy.com>
Source record: 68834

Reg Edwards wrote:
> But it appears to me that ALL SWR meters work on the principle of a
> common, identical, take off point for both voltage and current
> samples.

There are a number of different designs. One very popular class of
designs samples the voltage and current essentially at a point. If
the device is in a 50 ohm environment and the two samples are equal
in magnitude and phase, there is no reflected power. If the device
is in a non-50 ohm environment and the two samples are equal in
magnitude and phase, reflected power exists at the sample point even
though the device reports none.

> Therefore, anything inside the meter which could constitute a
> transmission line, no matter how long or short, if it separates the
> two effective take-off points, it is a small source of error and its
> actual length otherwise plays no part in the measuring process.

> (I mean its actual length is not included in the basic design
> calculations, except perhaps in rare instances to minimise the error.)
>
> (The error arises from a phase-shift error in tapping off the current
> sample. There may be no problem with defining the location of the
> voltage sample. All depends on meter construction and the tapping
> methods which vary but do not affect the basic design principle of a
> common tapping point.)
>
> I am not trolling. Please read very carefully. Try to limit yourself
> to HF and VHF. Do you agree? Yes or No?

All of the above is why this class of wattmeters, including the Bird,
does not establish a 50 ohm environment merely by being inserted in
a non-50 ohm system. The Bird samples voltage and current essentially
at a point, assumes it is in a 50 ohm environment, and reports the
power reading. If it is not in a 50 ohm environment, the power reading
that it reports will be wrong as Owen's experiment proved.
--
73, Cecil http://www.qsl.net/w5dxp

2338. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 13:23:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <BjO3f.2989$7h7.957@newssvr21.news.prodigy.com>
Source record: 68835

Dave wrote:

> "Cecil Moore" <mycall@arrl.net> wrote:
>>I don't think you understand what I was saying. It takes a
>>certain length of feedline to establish a Z0 environment
>>for the forward and reverse traveling TEM waves, i.e. to
>>force Vfor/Ifor = Vref/Iref = Z0.
>
> and what the experiment pointed out was that the length of feedline attached
> is immaterial, the 50ohm environment is established within the meter itself
> and it doesn't care what the length of feedline attached is.

The experiment proved that the 50 ohm environment is NOT established because the Bird readings were wrong. The Bird reported 100 watts forward power where the actual forward power was 104.1667 watts. The Bird reported zero reflected power where the reflected power was 4.1667 watts. Thus the experiment proves my point. The Bird does not yield accurate results when embedded in an environment other than 50 ohms.

All the Bird does is sample the voltage and current essentially at a point. If the ratio of net voltage to net current happens to be 50 ohms, the Bird will report a matched condition, no matter what the Z0 of the transmission line and no matter how much reflected power actually exists at the measurement point. For instance:

XMTR--balun--1/2WL 450 ohm line--x--1/2WL 450 ohm line--50 ohm load

The SWR on the line is 9:1. The reflected power is 64% of the forward power. If forward power equals 100 watts, reflected power will be 64 watts at point 'x'. Yet a Bird wattmeter inserted at point 'x' will read zero reflected power. The environment is clearly 450 ohms. The reflected energy doesn't tuck tail and run away when the Bird is inserted. The Bird is simply giving the wrong reading for reflected power because all it is looking at is voltage and current at a point. This is such elementary transmission line stuff that I cannot believe there is any argument about it.

The insertion of a Bird wattmeter in the middle of a non-50 ohm environment does NOT eliminate the reflected energy that exists before the insertion.
--
73, Cecil http://www.qsl.net/w5dxp

2339. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 13:26:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <DmO3f.2990$7h7.1404@newssvr21.news.prodigy.com>
Source record: 68836

Dave wrote:

> "Cecil Moore" <mycall@arrl.net> wrote:
>>Yes, that's exactly what I said in the other posting. But some
>>people seem to believe that inserting a Bird into a transmission
>>line with a Z0 other than 50 ohms magically changes it to a 50
>>ohm environment. The 40mm of transmission line inside the Bird
>>is supposed to accomplish that miracle.
>
> yep, that is true, and that is what the experiment shows. the 50 ohm load,
> even though it is caused by a 75 ohm line, is far enough away from the
> sensor that it sees it as 50 ohms. so the 'miracle' length is obviously
> less than 40mm.

So a one inch piece of 50 ohm coax forces the ratio of net voltage
to net current to be 50 ohms? Of course it does. You had me going
there for awhile. I didn't realize until now that you were pulling
my leg all the while.
--
73, Cecil http://www.qsl.net/w5dxp

2340. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 13:30:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <HpO3f.2991$7h7.313@newssvr21.news.prodigy.com>
Source record: 68837

Dave wrote:
> ah, but the sensor isn't in a 75 ohm environment, it is in a 50 ohm
> environment inside the meter and sees a 50 ohm load.

Again, 40mm is not enough to establish a 50 ohm environment
when embedded within a 75 ohm environment. The Bird is simply
sampling voltage and current without knowing the reference.
If the Bird were recalibrated for 75 ohms, it would read the
correct values in a 75 ohm environment.
--
73, Cecil http://www.qsl.net/w5dxp

2341. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 13:45:03 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <vbp423-o8g.ln1@p400bob.personal.cox.net>
Source record: 68839

I use Baudline (http://www.baudline.com - Linux) for doing measurements
like that. Works well.

One should calibrate the soundcard first though.

There are a host of others..

Cheers Bob VK2YQA

Owen Duffy wrote:
>
> On Fri, 14 Oct 2005 01:03:00 GMT, David <groups@orbitcoms.com> wrote:
>
>
>>Does anyone happen to know where there is a circuit diagram for a home
>>brew SINAD meter ?
>
>
> You should also consider searching the net for software that will use
> the PC sound card to make a SINAD measurement.
>
> Owen
> --

2342. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 14:02:08 UTC
From: Dave <noone@nowhere.com>
Message-ID: <asudnbcvwp70J9LenZ2dnUVZ_smdnZ2d@crocker.com>
Source record: 68838

"Cecil Moore" <mycall@arrl.net> wrote in message
news:E403f.2987$7h7.2358@newssvr21.news.prodigy.com...
> Reg Edwards wrote:
>> But it appears to me that ALL SWR meters work on the principle of a
>> common, identical, take off point for both voltage and current
>> samples.
>
> There are a number of different designs. One very popular class of
> designs samples the voltage and current essentially at a point. If
> the device is in a 50 ohm environment and the two samples are equal
> in magnitude and phase, there is no reflected power. If the device
> is in a non-50 ohm environment and the two samples are equal in
> magnitude and phase, reflected power exists at the sample point even
> though the device reports none.
>
>> Therefore, anything inside the meter which could constitute a
>> transmission line, no matter how long or short, if it separates the
>> two effective take-off points, it is a small source of error and its
>> actual length otherwise plays no part in the measuring process.
>
>> (I mean its actual length is not included in the basic design
>> calculations, except perhaps in rare instances to minimise the error.)
>>
>> (The error arises from a phase-shift error in tapping off the current
>> sample. There may be no problem with defining the location of the
>> voltage sample. All depends on meter construction and the tapping
>> methods which vary but do not affect the basic design principle of a
>> common tapping point.)
>>
>> I am not trolling. Please read very carefully. Try to limit yourself
>> to HF and VHF. Do you agree? Yes or No?
>
> All of the above is why this class of wattmeters, including the Bird,
> does not establish a 50 ohm environment merely by being inserted in
> a non-50 ohm system. The Bird samples voltage and current essentially
> at a point, assumes it is in a 50 ohm environment, and reports the
> power reading. If it is not in a 50 ohm environment, the power reading
> that it reports will be wrong as Owen's experiment proved.

ah, but if the bird does establish a 50 ohm 'environment' within its 40mm
housing then the reading that was actually obtained is indeed correct. so
now, how else could you read zero reflected power at that point if it didn't
establish that environment? what other evidence to you have that 40mm is
too short? if 40mm is too short then why do we worry at all about impedance

bumps in connectors that are 20mm or so long??? if 20mm is enough to see a bump then that is obviously affecting the 'environment' on the line.

2343. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 14:06:03 UTC
From: Dave <noone@nowhere.com>
Message-ID: <5KSdnTRgwb3IJtLeRVn-qA@crocker.com>
Source record: 68840

"Cecil Moore" <mycall@arrl.net> wrote in message
news:DmO3f.2990$7h7.1404@newssvr21.news.prodigy.com...
> Dave wrote:
>
>> "Cecil Moore" <mycall@arrl.net> wrote:
>>>Yes, that's exactly what I said in the other posting. But some
>>>people seem to believe that inserting a Bird into a transmission
>>>line with a Z0 other than 50 ohms magically changes it to a 50
>>>ohm environment. The 40mm of transmission line inside the Bird
>>>is supposed to accomplish that miracle.
>>
>> yep, that is true, and that is what the experiment shows. the 50 ohm
>> load, even though it is caused by a 75 ohm line, is far enough away from
>> the sensor that it sees it as 50 ohms. so the 'miracle' length is
>> obviously less than 40mm.
>
> So a one inch piece of 50 ohm coax forces the ratio of net voltage
> to net current to be 50 ohms? Of course it does. You had me going
> there for awhile. I didn't realize until now that you were pulling
> my leg all the while.
> --

yep, sounds good to me. now, someone please put a bird meter on a tdr and
see what the characteristic impedance of it is internally. then put it on a
network analyzer and see if it does indeed transform the 'environment' from
75 to 50 ohms in its 40mm length. oh and while you are at it calculate the
s factors for all the transitions, those will come up in the discussion here
shortly.

2344. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 14:42:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1tP3f.2535$tV6.1783@newssvr27.news.prodigy.net>
Source record: 68841

Dave wrote:
> ah, but if the bird does establish a 50 ohm 'environment' within its 40mm
> housing then the reading that was actually obtained is indeed correct. so
> now, how else could you read zero reflected power at that point if it didn't
> establish that environment?

Would you like for me to go through the math of a voltage and
current sampled at a point without disturbing anything?

Assume the voltage is sampled such that 100v of net voltage
is sampled as 10 volts.

Assume the current is sampled such that two amps of net current
is sampled as 10 volts.

If these samples are in phase, adding them will result in 20v.
That equals 200 watts of forward power on the meter.

Subtracting them will result in zero volts. That equals zero
watts of reflected power on the meter.

The sampled net voltage and net current determine the 50 ohm
calibration. No 50 ohm environment required.

If the sample point is in 75 ohm coax with no reflections, the
sample voltage will be 12.3 volts and the sample current will
8.165 volts. Subtracting those sample values doesn't yield zero
so 41.35 watts of reflected power will be reported where none
actually exists.

So unless the mere writing of my words on this newsgroup
establishes a 50 ohm environment, the Bird doesn't need to
establish a 50 ohm environment to obtain the same above
results.

If the Bird indeed did control the environment into which
it was inserted, it would be violating a design goal for
measuring instruments and Bird wouldn't be selling many
of those highly intrusive devices. Bird wants the meter to
be as unobtrusive as possible and it is.
--
73, Cecil, http://www.qsl.net/w5dxp

2345. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 14:45:34 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <iwP3f.2537$tV6.390@newssvr27.news.prodigy.net>
Source record: 68842

Dave wrote:
> now, someone please put a bird meter on a tdr and
> see what the characteristic impedance of it is internally. then put it on a
> network analyzer and see if it does indeed transform the 'environment' from
> 75 to 50 ohms in its 40mm length. oh and while you are at it calculate the
> s factors for all the transitions, those will come up in the discussion here
> shortly.

Probably all that is needed is to measure the Bird's s11
parameter while sitting in a 75 ohm environment. I'll
bet it's very close to zero.
--
73, Cecil, http://www.qsl.net/w5dxp

2346. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 15:50:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fmkvk19bb4ctib8j4uvio2j64vm1u6l1li@4ax.com>
Source record: 68844

On Fri, 14 Oct 2005 12:55:57 GMT, Cecil Moore <mycall@arrl.net> wrote:

>They why bother with characteristic impedance at all?

This is your question and no one else's.

>If Z0 doesn't establish a Z0 environment, then all transmission
>lines are just alike and transmission theory is hogwash.

And this is your understanding - alone and in isolation from the rest of us. Only you, by your logic arrived here by twists and turns.

It has no doubt slipped your mind that on one of those turns, the requirement for x length of line was lost into the byways of this labyrinth you traverse.

2347. MFJ 2006 Catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 15:56:22 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <3oQ3f.24271$dl2.426@fe08.lga>
Source record: 68843

The recent MFJ catalog contains several new loop tuners. These seem almost too good to be true, given the wonders of "small loops" discussed many times in this newsgroup. Has anyone tried these new products?

Also, MFJ has a new Clamp-On RF Ammeter (calibrated for .3, 1, and 3 amps) for only $50. Any thoughts -- might it be useful for measuring currents in radials (just to verify that each radial is doing something!).

Bill
W2WO

2348. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:00:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <melvk1l5vh717g5dqk7umbnkfj1bhu7sbu@4ax.com>
Source record: 68845

On Fri, 14 Oct 2005 14:45:34 GMT, Cecil Moore <mycall@arrl.net> wrote:

>bet it's very close to zero.
Another one of your rounding errors like where light 10 times brighter
than the sun is black.

2349. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:10:04 UTC
From: Dave <noone@nowhere.com>
Message-ID: <S_2dnTibKuj7RdLeRVn-hw@crocker.com>
Source record: 68846

"Cecil Moore" <mycall@arrl.net> wrote in message
news:1tP3f.2535$tV6.1783@newssvr27.news.prodigy.net...
> Dave wrote:
>> ah, but if the bird does establish a 50 ohm 'environment' within its 40mm
>> housing then the reading that was actually obtained is indeed correct.
>> so now, how else could you read zero reflected power at that point if it
>> didn't establish that environment?
>
> Would you like for me to go through the math of a voltage and
> current sampled at a point without disturbing anything?
>
> Assume the voltage is sampled such that 100v of net voltage
> is sampled as 10 volts.
>
> Assume the current is sampled such that two amps of net current
> is sampled as 10 volts.
>
> If these samples are in phase, adding them will result in 20v.
> That equals 200 watts of forward power on the meter.
>
> Subtracting them will result in zero volts. That equals zero
> watts of reflected power on the meter.
>
> The sampled net voltage and net current determine the 50 ohm
> calibration. No 50 ohm environment required.
>
> If the sample point is in 75 ohm coax with no reflections, the
> sample voltage will be 12.3 volts and the sample current will
> 8.165 volts. Subtracting those sample values doesn't yield zero
> so 41.35 watts of reflected power will be reported where none
> actually exists.

but there will be a reflection at the 50 ohm to 75 ohm transition on the
load side of the meter.

>
> So unless the mere writing of my words on this newsgroup
> establishes a 50 ohm environment, the Bird doesn't need to
> establish a 50 ohm environment to obtain the same above
> results.
>
> If the Bird indeed did control the environment into which
> it was inserted, it would be violating a design goal for
> measuring instruments and Bird wouldn't be selling many
> of those highly intrusive devices. Bird wants the meter to

> be as unobtrusive as possible and it is.

who says an instrument can't control it's environment? and who makes that a design goal?? and who are you to say that bird wanted to make the meter 'unobtrusive'?? every instrument has some loading or effect on the circuit it measures, some more than others. some even include 50 or 75 ohm loads internally to load the circuit they are attached to. Ones that pass a signal through their own sensing circuit often have more of an effect than others.

2350. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:16:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <HRQ3f.2549$tV6.2315@newssvr27.news.prodigy.net>
Source record: 68847

Richard Clark wrote:
> It has no doubt slipped your mind that on one of those turns, the
> requirement for x length of line was lost into the byways of this
> labyrinth you traverse.

Nope, it hasn't slipped my mind. So here's a question for you.
Is a zero length of 50 ohm coax sufficient to establish a
50 ohm environment?
--
73, Cecil, http://www.qsl.net/w5dxp

2351. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:18:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0TQ3f.2550$tV6.37@newssvr27.news.prodigy.net>
Source record: 68848

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>bet it's very close to zero.
>
> Another one of your rounding errors like where light 10 times brighter
> than the sun is black.

I see you understand this subject just as well as you
understood that one.
--
73, Cecil, http://www.qsl.net/w5dxp

2352. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:22:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jXQ3f.2554$tV6.1789@newssvr27.news.prodigy.net>
Source record: 68849

Dave wrote:
> but there will be a reflection at the 50 ohm to 75 ohm transition on the
> load side of the meter.

It was previously reported that the path through the Bird
is 40mm. The path through the Bird is actually about five
inches which is probably long enough to establish a 50 ohm
environment.
--
73, Cecil, http://www.qsl.net/w5dxp

2353. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:23:20 UTC
From: Dave <noone@nowhere.com>
Message-ID: <jOOdnZBdKdMfRtLenZ2dnUVZ_sudnZ2d@crocker.com>
Source record: 68850

"Cecil Moore" <mycall@arrl.net> wrote in message
news:HRQ3f.2549$tV6.2315@newssvr27.news.prodigy.net...
> Richard Clark wrote:
>> It has no doubt slipped your mind that on one of those turns, the
>> requirement for x length of line was lost into the byways of this
>> labyrinth you traverse.
>
> Nope, it hasn't slipped my mind. So here's a question for you.
> Is a zero length of 50 ohm coax sufficient to establish a
> 50 ohm environment?

you build it and i'll measure it and let you know.

2354. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:28:11 UTC
From: David Howard <dhoward@s3c.com>
Message-ID: <v0R3f.3015$7h7.2030@newssvr21.news.prodigy.com>
Source record: 68851

Dave,

Goto http://www.uspto.gov, then do a search for patent # 06603440 ---
you will need a viewer installed (quicktime works for me) to view images.
Also, I have noticed some problems using Firefox when trying to view
images on US patent office site, so use Internet Explorer.

If you manage to get it working, check out the snowflake antenna on page
3-4.

David Howard

"Dave" <noone@nowhere.com> wrote in message
news:F5idnVhkmq98AtLeRVn-uQ@crocker.com...
> it gets me to their web site, but says:
>
> "Details for publication US06603440 were not found.
> Please use your browser's "back" button to return to the previous page, or
> follow one of the links on this page."
>
>
> "David Howard" <dhoward@s3c.com> wrote in message
> news:CbG3f.16464$6e1.7855@newssvr14.news.prodigy.com...
> > Sorry for the link to delphion ... it works for me, but then I have an
> > account, and my web browser auto logs me in --- ooops.
> >
> > No worries about the cold here --- I'm in sunny N. California.
> >
> > David Howard
> >
> >
> > "Richard Clark" <kb7qhc@comcast.net> wrote in message
> > news:euotk1hpa9mbml7snqsh6vn8kkkqgq6ajs@4ax.com...
> >> On Thu, 13 Oct 2005 22:06:01 GMT, "David Howard" <dhoward@s3c.com>
> >> wrote:
> >>
> >> >Kinky antennas?! Gotta love it.
> >> As they say here in Ballard
> >>
> >> Ya, sure. You betcha.
> >>
> >> >check out this patent on non-fractal kinky antennas:
> >> >US6603440: Arrayed-segment loop antenna
> >> >http://www.delphion.com/details?pn=US06603440__
> >>

> >> Hi David,
> >>
> >>
> > http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=/netahtml/srchnum.htm&r=1&f=G&l=50&s1=6,603,440.WKU.&OS=PN/6,603,440&RS=PN/6,603,440
> >> is free access, and faster.
> >> >
> >> >I have many EZNEC4 models of just such antennas, and have constructed
> >> >may
> > of them
> >> >(which makes sense, since I'm the author). By the way, it was
> >> >challanging
> > to
> >> >get this patent through primarily because of the nearly all
encompasing
> > Fractal antenna
> >> >patents. But I did it.
> >>
> >> Mail a copy to fraudtenna and wait for the lawyer's letters. Winter
> >> is coming and you can pin them to the wall for extra insulation.
> >>
> >> 73's
> >> Richard Clark, KB7QHC
> >>
> >>
>
>

2355. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:31:52 UTC
From: chuck <nospam@nospam.net>
Message-ID: <Y3R3f.14801$q1.8324@newsread3.news.atl.earthlink.net>
Source record: 68852

Good info, Owen. I think the EIA test procedures really have FM or AM in mind, rather than SSB or, what is exactly the same for SINAD purposes, CW. The 60% figure just doesn't apply to SSB or CW. You would simply use an unmodulated signal generator with the frequency offset to produce a 1 kHz tone in the receiver's audio output, preferrably centered in the receiver's passband. Then a measure of rms af voltage at the receiver's output with and without the 1 kHz filter would be made.

We don't hear much about SINAD testing procedures for SSB and CW. Even the ARRL's test procedure manual glosses over the procedure for other than FM.

Chuck
NT3G

Owen Duffy wrote:
> On Fri, 14 Oct 2005 00:58:35 GMT, Owen Duffy <owen@no.where> wrote:
>
>
>
>>It is the ratio of signal to noise and distortion, and it is measured
>>by setting up a test where the receiver produces output from a SSG
>>(typically for a 1KHz audio output) and notching out the 1KHz output
>>to measure the noise and distortion wrt the filtered 1KHz output.
>>
>
>
> That should be:
> It is the ratio of signal and noise and distortion to noise and
> distortion, and it is measured by setting up a test where the receiver
> produces output from a SSG (typically for a 1KHz audio output) and
> notching out the 1KHz output to measure the unfiltered output wrt the
> noise and distortion.
>
> I should also have mentioned the EIA test requires the receiver be set
> to rated output with 1mV RF input at 60% of rated modulation, then the
> RF output reduced to find the input level for 12dB SINAD.
>
> You could measure it with soething like a HP334A Distortion Analyser,
> but it is pretty tedious if you are trying to find the RF input for a
> particular SINAD. Hence you see boxes that have an AGC controlled
> amplifier deliving a constant voltage to the filter block. I have a
> Motorola one (R1013A) that works ok, there were also Sinadders. Even
> more convenient are the ones integrated into a communications monitor.
> I don't believe these boxes do true RMS measurements.

>
> An alternative if you have a standalone SSG and want to do SINAD
> measurement is to use a PC sound card and software that does an FFT
> and calculates the SINAD (using true RMS measurement). Spectrum Lab
> does it, its free, but it is such a flexible / general tool, it may be
> a bit daunting to get it working. The SpectrumLab menu "Quick Settings
> / Rx Equipment Tests / SINAD test" is a quick path to setup... but it
> is still a quite complex package. A whole lot better than the style of
> a HP334A though! SL is at http://www.qsl.net/dl4yhf/spectra1.html .
>
> Owen
> --

2356. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:32:01 UTC
From: David Howard <dhoward@s3c.com>
Message-ID: <54R3f.3016$7h7.296@newssvr21.news.prodigy.com>
Source record: 68853

Richard,

HMB is still a fairly small town, and Hiway 1 on the cliffs south
of Pacifica still falls into the Ocean on a regular basis. That
is why they are now building a tunnel through the coastal
mountains (even closer still to San Andreas fault) between
HMB and Pacifica. It remains to be seen which will be worse,
the eroding cliffs or the collapsing tunnel. lol

David Howard

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:daguk1lpieeh30jjdd4danb4p528dhmj6b@4ax.com...
> On Fri, 14 Oct 2005 04:09:06 GMT, "David Howard" <dhoward@s3c.com>
> wrote:
>
> >No worries about the cold here --- I'm in sunny N. California.
>
> Hi David,
>
> So I noticed on the patent papers. I also noted the assignee is in
> Half Moon Bay. When I was a kid I lived a few miles north of there in
> Pacific Manor, later changed to Pacifica, and probably now aggregated
> into some megopolis - if the cliffs haven't dissolved away to leave it
> in the surf (Highway 1 used to slip beneath the waves with each minor
> earthquake - we were only a mile or so from the San Andreas).
>
> 73's
> Richard Clark, KB7QHC

2357. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 16:54:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <vpR3f.3625$Zv5.3004@newssvr25.news.prodigy.net>
Source record: 68854

Dave wrote:

> "Cecil Moore" <mycall@arrl.net> wrote:
>>Nope, it hasn't slipped my mind. So here's a question for you.
>>Is a zero length of 50 ohm coax sufficient to establish a
>>50 ohm environment?
>
> you build it and i'll measure it and let you know.

It's in the middle of a piece of 75 ohm coax.
--
73, Cecil, http://www.qsl.net/w5dxp

2358. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 17:05:49 UTC
From: Dave <noone@nowhere.com>
Message-ID: <JdmdnSgvJNTreNLeRVn-hA@crocker.com>
Source record: 68856

"Cecil Moore" <mycall@arrl.net> wrote in message
news:vpR3f.3625$Zv5.3004@newssvr25.news.prodigy.net...
> Dave wrote:
>
>> "Cecil Moore" <mycall@arrl.net> wrote:
>>>Nope, it hasn't slipped my mind. So here's a question for you.
>>>Is a zero length of 50 ohm coax sufficient to establish a
>>>50 ohm environment?
>>
>> you build it and i'll measure it and let you know.
>
> It's in the middle of a piece of 75 ohm coax.

i just measured it at 50 ohms. so there.

create an impossible condition, get an impossible answer.

2359. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 17:47:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <forvk1pmpkpvtadhgri1h6ehc8lvlp2l5c@4ax.com>
Source record: 68857

On Fri, 14 Oct 2005 16:18:04 GMT, Cecil Moore <mycall@arrl.net> wrote:
>> Another one of your rounding errors like where light 10 times brighter
>> than the sun is black.
>I see you understand this subject just as well as you
>understood that one.
Ah! you've seen the light then.

2360. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 17:49:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jrrvk1hmtpgvdrqm5kmtedufo0667993jm@4ax.com>
Source record: 68859

On Fri, 14 Oct 2005 16:16:39 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Is a zero length of 50 ohm coax sufficient
For angels to hold a convention in?

You hit a oil patch on that turn in the road, your logic is in the
ditch now.

2361. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 17:50:03 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <zYednawlsM4nctLeRVn-qw@web-ster.com>
Source record: 68858

chuck wrote:

> Owen Duffy wrote:
>
>> On Fri, 14 Oct 2005 00:58:35 GMT, Owen Duffy <owen@no.where> wrote:
>>
>>
>>
>>> It is the ratio of signal to noise and distortion, and it is measured
>>> by setting up a test where the receiver produces output from a SSG
>>> (typically for a 1KHz audio output) and notching out the 1KHz output
>>> to measure the noise and distortion wrt the filtered 1KHz output.
>>>
>>
>>
>> That should be: It is the ratio of signal and noise and distortion to
>> noise and
>> distortion, and it is measured by setting up a test where the receiver
>> produces output from a SSG (typically for a 1KHz audio output) and
>> notching out the 1KHz output to measure the unfiltered output wrt the
>> noise and distortion.
>>
>> I should also have mentioned the EIA test requires the receiver be set
>> to rated output with 1mV RF input at 60% of rated modulation, then the
>> RF output reduced to find the input level for 12dB SINAD.
>>
>> You could measure it with soething like a HP334A Distortion Analyser,
>> but it is pretty tedious if you are trying to find the RF input for a
>> particular SINAD. Hence you see boxes that have an AGC controlled
>> amplifier deliving a constant voltage to the filter block. I have a
>> Motorola one (R1013A) that works ok, there were also Sinadders. Even
>> more convenient are the ones integrated into a communications monitor.
>> I don't believe these boxes do true RMS measurements.
>>
>> An alternative if you have a standalone SSG and want to do SINAD
>> measurement is to use a PC sound card and software that does an FFT
>> and calculates the SINAD (using true RMS measurement). Spectrum Lab
>> does it, its free, but it is such a flexible / general tool, it may be
>> a bit daunting to get it working. The SpectrumLab menu "Quick Settings
>> / Rx Equipment Tests / SINAD test" is a quick path to setup... but it
>> is still a quite complex package. A whole lot better than the style of
>> a HP334A though! SL is at http://www.qsl.net/dl4yhf/spectra1.html .
>>
>> Owen

>> --
> Good info, Owen. I think the EIA test procedures really have FM or AM in
> mind, rather than SSB or, what is exactly the same for SINAD purposes,
> CW. The 60% figure just doesn't apply to SSB or CW. You would simply use
> an unmodulated signal generator with the frequency offset to produce a 1
> kHz tone in the receiver's audio output, preferrably centered in the
> receiver's passband. Then a measure of rms af voltage at the receiver's
> output with and without the 1 kHz filter would be made.
>
> We don't hear much about SINAD testing procedures for SSB and CW. Even
> the ARRL's test procedure manual glosses over the procedure for other
> than FM.
>
> Chuck
> NT3G
>
SINAD measurements were cooked up because the audio quality of an FM
receiver depends both on the demodulator and on the noise
characteristics of it's front end. Just having a noise figure for an FM
receiver is pretty useless. Keep in mind that an FM receiver is usually
rated as "X dB SINAD for y microvolts input".

For SSB and CW, on the other hand, the noise is purely additive so all
you need to know is the receiver noise figure. Once you know that
(assuming that it's not a really strange radio) you know everything
about it's performance. Given the noise figure in dB you can easily
calculate the 12dB SINAD should you be so inclined, as well as any other
signal vs. noise figure you should want. You have a good reason to
believe that the noise is white so you can even take an SSB receiver and
calculate the noise figure of the thing after you tack on an audio
bandpass filter for CW. This is _not_ the kind of thing you could do
with FM.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2362. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 17:56:32 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <HKudnRWMo4uHbNLeRVn-rg@comcast.com>
Source record: 68860

"Dave" <noone@nowhere.com> wrote in message
news:NIednV2m0M0jPdLenZ2dnUVZ_sudnZ2d@crocker.com...
>
> "Cecil Moore" <mycall@arrl.net> wrote in message
> news:M_C3f.16345$6e1.10969@newssvr14.news.prodigy.com...
>> Tam/WB2TT wrote:
>>
>>> "Cecil Moore" <mycall@arrl.net> wrote:>
>>>>The actual SWR on a lossless line doesn't change. Yet, in another
>>>>posting, I showed that moving the Bird 1/4WL closer to the load
>>>>caused a reported SWR change by the Bird from 1:1 to 2.25:1. How
>>>>could both results possibly be right?
>>>
>>> The Bird does not know squat about transmission lines, foreward, or
>>> reflected. It only cares about impedance. If you connect a 50 Ohm load
>>> to it through 1/4 wave of 75 Ohm coax, the impedance the Bird sees will
>>> be transformed to 112.5 Ohms; hence the 2.25 SWR. (Actually, a 2.25:1
>>> impedance ratio)
>>
>> Yes, that's exactly what I said in the other posting. But some
>> people seem to believe that inserting a Bird into a transmission
>> line with a Z0 other than 50 ohms magically changes it to a 50
>> ohm environment. The 40mm of transmission line inside the Bird
>> is supposed to accomplish that miracle.
>
> yep, that is true, and that is what the experiment shows. the 50 ohm
> load, even though it is caused by a 75 ohm line, is far enough away from
> the sensor that it sees it as 50 ohms. so the 'miracle' length is
> obviously less than 40mm.
>
Specifically, the "miracle length"is 0. My SWCad simulation assumes 0 length
interconnects, 0 spurious capacity, and 0 spurious inductance. Also, I might
add, near infinite bandwidth. In fact, it should work at DC. Haven't tried
that, but it works the same at 100 Hz as 100 MHz.. It gives generally
accepted answers.

Tam

2363. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 18:01:43 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <SqSdnWoBA53Bb9LeRVn-tA@comcast.com>
Source record: 68861

"Cecil Moore" <mycall@arrl.net> wrote in message
news:xVN3f.2980$7h7.2723@newssvr21.news.prodigy.com...
> Richard Clark wrote:
>> On Fri, 14 Oct 2005 00:51:02 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>
>>
>>>Sorry, I am just quoting Owen's results.
>>
>> There is nothing in his entire scope of postings that presents:
>>
>>>There was 4.1667 watts of reflected energy flowing back through the Bird.
>>
>> Which is absurd.
>
> The SWR on the 75 ohm line is 1.5:1. If 100 watts is delivered to
> the load, there's 4.1667 watts of energy reflected from the load
> and flowing back through the Bird. The Bird doesn't see it because
> the Bird is calibrated for the wrong Z0.
>
>> Owen has demonstrated quite clearly that your assertion
>>
>>>It takes a certain length of feedline to establish a Z0 environment
>>
>> is blarney from one end of your feedline to the other.
>
> Really? They why bother with characteristic impedance at all?
> If Z0 doesn't establish a Z0 environment, then all transmission
> lines are just alike and transmission theory is hogwash.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil,

I can't figure out which side you are on. There is no Z0 environment set up;
the Bridge is balanced for a chosen Z0, actually R0.

Tam/WB2TT

2364. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 18:08:22 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dios6m$2d8$1@engnntp2.cig.mot.com>
Source record: 68865

Owen, (& crb)
Your words are contrary to the way we measured it (Motorola). You say
..."It is the ratio of signal to noise and distortion,..", but we measured
not just the signal, but everything for the "top" of the ratio (which is
used more like a reference as it is the more stable as signal level varies).
I believe your last line saying wrt to the filtered tone supports this. It
implies that the tone is (bandpass) filtered for one of the measurements and
we don't do that.

Joe's is a bit better of an explanation (the RMS meter and quantities
ratioed).

A meter, a pure 1kHz tone modulated signal generator and a 1kHz notch is all
that is needed. What happens if you don't have a "real" RMS meter? I don't
know.

73, Steve, ,K.9;D'C'I

"W3JDR" <joe@roccis.com> wrote in message
news:ljM3f.39197$q81.11651@trnddc06...
> It is the ratio of (Signal + Noise+Distortion) to (Noise+Distortion) as
> measured at the receiver audio output. It is measured using an RMS-reading
> AC voltmeter , typically with a 1Khz modulation tone on the signal applied
> to the receiver under test.
>
> First you measure the audio signal out of the receiver using the AC RMS
> meter. Then you apply a notch filter at the modulation frequency and
measure
> the residual noise+distortion, again using the RMS AC voltmeter. SINAD is
> the ratio of the two measurements.
>
> Joe
> W3JDR
>
>
>
> "crb" <anon@net.com> wrote in message
news:dimtor0skl@enews1.newsguy.com...
> > Is it only valid for AM and FM measurements?
> >
> > I know its receiver sensitivity.
> >
> > Is it Signal divided by Noise with distortion??
> >
> > 12 dB SINAD means what? The signal is 12 dB greater than noise and

> > distortion or
> > is it more complicated than that?
>
>

2365. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 18:26:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <QLS3f.3037$7h7.1435@newssvr21.news.prodigy.com>
Source record: 68862

Richard Clark wrote:
> Cecil Moore <mycall@arrl.net> wrote:
>>>Another one of your rounding errors like where light 10 times brighter
>>>than the sun is black.
>>
>>I see you understand this subject just as well as you
>>understood that one.
>
> Ah! you've seen the light then.

Please tell me that you have figured out how the irradiance
in the 1/4WL thin-film can be greater than the incident
irradiance when reflections are completely canceled.
--
73, Cecil http://www.qsl.net/w5dxp

2366. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 18:39:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t6uvk1ttv93pklkt0pkl312agv32ak7ml4@4ax.com>
Source record: 68863

On Fri, 14 Oct 2005 18:26:56 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Please tell me that you have figured out how the irradiance
>in the 1/4WL thin-film can be greater than the incident
>irradiance when reflections are completely canceled.
How amusing.

This dovetails with your own proof (sic) - HERE - how the Bird has failed to sense that very lack of cancellation looking into a quarterwave section that offers a perfect match to the Bird. As I said, you lost your logic on the first bump in the road you took.

This is an amusing irony of where you have found power where you have always posited there is none, and where you have rejected there is power when it has been shown to exist. Each example exposes your lack of experience in the scale of the error and its relation to the equipment measuring it.

And both times it has come at the topic for which you have absolutely no experience with at the bench. Your arguments are exhibits of the failure of third hand-off quotes bolstered by Xeroxed citations. They all come out of books that are suitable catechisms for puttering students and doddering intellectuals, and they fail in the face of obvious results demonstrated at the bench.

Of course, this is advanced topics I am speaking of when we get to the reality of actual results, and no doubt it shakes your Sunday school sophistication of faith in a comic book level of practice.

I will now leave you with your sputtering attempt to recover. ;-)

2367. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 18:44:06 UTC
From: Dave <noone@nowhere.com>
Message-ID: <JZ6dnd_75J3iYdLenZ2dnUVZ_sudnZ2d@crocker.com>
Source record: 68864

"Cecil Moore" <mycall@arrl.net> wrote in message
news:QLS3f.3037$7h7.1435@newssvr21.news.prodigy.com...
> Richard Clark wrote:
>> Cecil Moore <mycall@arrl.net> wrote:
>>>>Another one of your rounding errors like where light 10 times brighter
>>>>than the sun is black.
>>>
>>>I see you understand this subject just as well as you
>>>understood that one.
>>
>> Ah! you've seen the light then.
>
> Please tell me that you have figured out how the irradiance
> in the 1/4WL thin-film can be greater than the incident
> irradiance when reflections are completely canceled.
> --

ah, back to something only cecil would care about... guess the v/i
discussion is over now.

2368. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 19:18:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bgvvk1lo8efsbkjs5ee1srs7a309cv9qls@4ax.com>
Source record: 68866

On Fri, 14 Oct 2005 18:44:06 -0000, "Dave" <noone@nowhere.com> wrote:

>guess the v/i discussion is over now.

Hi Dave,

It may have been tailored in that vernacular, but it was actually never about that at all. As the last "thin-film" comment reveals, it has always been about how one mind can encompass two contradictory positions (total cancellation - non total cancellation) about the same mechanism (a quarterwave matching section).

In other words: A Troll.

The humor here is that supposedly the thin-film offers "total" cancellation for the same reason that the quarter wave from this bench test does not. :-)

In fact, neither exhibit "total" cancellation, but to maintain the charade one or the other does, then that charade must fail, and these recent arguments have just revealed that fracture.

Some time ago I offered results from the bench in just how much light was in fact returned from a thin-film section, and this was rejected as impossible - hence the allusion to brighter than the sun light being rendered as black to satisfy this illusion of "totality" in cancellation. This reflected light was buried in the digits, but still and all, far brighter than the sun (such is the vast range of accommodation that the eye offers as a measuring device).

On the flip side, any leakage (reflection back) from a quarterwave section suffers identical issues. Those reflections are buried in the digits too. This is orders of magnitude different from the speculated 4.17 watts which is a farrago. Does a Bird have the same scope of resolution as the eye? Hardly. The inherent error of the meter at ï¿½5% vastly overwhelms such products (the eye does not suffer such error for other reasons - imagine what a driver's eye-check test would be like if it did).

So, to advance this itinerant concept of Owen's demonstration not busting the myth of the requirement for line sections, this troll has diverged from the topic to haul out a spurious argument that is in direct conflict with other discussions of the same topic, from the same troll. It necessarily demands a villain to suit the melodrama offered. That villain is the Bird and its failure is to reveal a power. Left unsaid is that actual power is, as I said, buried in the digits and wholly irresolvable. Further, it is NOT the claim of 4.17

watts which was rummaged up. The Bird would be incapable of resolving the actual reflection products from a real quarterwave section. Thus it cannot absorb the sin of this counter-proof (sic).

Let's just say that statements that arbitrarily assign ideal concepts like "totality" suffer across the board - and when these forced assignments are used as the link pin to "theories," then they can lead to amusing contradictions and failures of logic like those we've been witness to here.

73's
Richard Clark, KB7QHC

2369. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 19:21:17 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dip285$h0l$1@news.service.uci.edu>
Source record: 68868

Richard Clark wrote:

> On Fri, 14 Oct 2005 18:44:06 -0000, "Dave" <noone@nowhere.com> wrote:
>
>
>>guess the v/i discussion is over now.
>
>
> Hi Dave,
>
> It may have been tailored in that vernacular, but it was actually
> never about that at all. As the last "thin-film" comment reveals, it
> has always been about how one mind can encompass two contradictory
> positions (total cancellation - non total cancellation) about the same
> mechanism (a quarterwave matching section).
>
> In other words: A Troll.
>
> The humor here is that supposedly the thin-film offers "total"
> cancellation for the same reason that the quarter wave from this bench
> test does not. :-)
>
> In fact, neither exhibit "total" cancellation, but to maintain the
> charade one or the other does, then that charade must fail, and these
> recent arguments have just revealed that fracture.
>
> Some time ago I offered results from the bench in just how much light
> was in fact returned from a thin-film section, and this was rejected
> as impossible - hence the allusion to brighter than the sun light
> being rendered as black to satisfy this illusion of "totality" in
> cancellation. This reflected light was buried in the digits, but
> still and all, far brighter than the sun (such is the vast range of
> accommodation that the eye offers as a measuring device).
>
> On the flip side, any leakage (reflection back) from a quarterwave
> section suffers identical issues. Those reflections are buried in the
> digits too. This is orders of magnitude different from the speculated
> 4.17 watts which is a farrago. Does a Bird have the same scope of
> resolution as the eye? Hardly. The inherent error of the meter at
> ï¿½5% vastly overwhelms such products (the eye does not suffer such
> error for other reasons - imagine what a driver's eye-check test would
> be like if it did).
>
> So, to advance this itinerant concept of Owen's demonstration not

> busting the myth of the requirement for line sections, this troll has
> diverged from the topic to haul out a spurious argument that is in
> direct conflict with other discussions of the same topic, from the
> same troll. It necessarily demands a villain to suit the melodrama
> offered. That villain is the Bird and its failure is to reveal a
> power. Left unsaid is that actual power is, as I said, buried in the
> digits and wholly irresolvable. Further, it is NOT the claim of 4.17
> watts which was rummaged up. The Bird would be incapable of resolving
> the actual reflection products from a real quarterwave section. Thus
> it cannot absorb the sin of this counter-proof (sic).
>
> Let's just say that statements that arbitrarily assign ideal concepts
> like "totality" suffer across the board - and when these forced
> assignments are used as the link pin to "theories," then they can lead
> to amusing contradictions and failures of logic like those we've been
> witness to here.
>
> 73's
> Richard Clark, KB7QHC

I think it might also be interesting to discuss the instance in which
the Bird is interfaced with a real halfwave section.

ac6xg

2370. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 19:23:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0510l1d9fbauafptjd41ul5l036qug97g6@4ax.com>
Source record: 68867

On Fri, 14 Oct 2005 13:08:22 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>A meter, a pure 1kHz tone modulated signal generator and a 1kHz notch is all
>that is needed. What happens if you don't have a "real" RMS meter? I don't
>know.

Hi Steve,

You don't need a "real" RMS meter. The expressed requirement for a
pure 1kHz tone provides the necessary sine wave shape such that it
simply becomes a matter of scale calibration. If you had said a
square wave 1KHz tone (nothing pure about that), then you would have
to dig deep for a "real" RMS meter. That too, could be scaled, but I
wouldn't count on it because it would be a rare amplifier chain that
could faithfully keep it square - and the notch would inject it into
the measurement as distortion and noise.

73's
Richard Clark, KB7QHC

2371. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 19:51:55 UTC
From: richardharrison@webtv.net
Message-ID: <5575-43500C5B-448@storefull-3251.bay.webtv.net>
Source record: 68869

Owen wrote:

"The myth that measurements with a Bird 43 of conditions on the Thruline section are invalid unless it has some minimum length of 50 ohm line on both sides of itself is busted."

Bird says the wattmeter can be placed anywhere in the line. That precludes a requirement to have minimum lengths of 50-ohm cable on both sides of the wattmeter. Particular total lengths of line woould be a function of wavelenth.

The Model 43 Thruline Wattmeter accurately measures forward or reverse power in transmission lines under any load condition.

Regardless of the load impedance, the forward and reflected powers are forced by construction of the coax to conform to Zo. Line volts divided by line amps in either direction has an absolute value of 50 ohms.

Bird plug-in elements are designed for insertion into a precision coaxial rigid air line which is a part of the Model 43. Elements are available in a wide variety of frequency ranges and maximum power levels..

Cancellation of response to one direction of power flow while responding to the to the other is accomplished by careful balance of the current and voltage samples within an element. The samples which are in-phase add. The samples for the other direction are out-of-phase and cancel.

To make sure cancellation is complete in the undesired direction, Zo must be as specified in the design. Accuracy can`t be expected in the wrong Zo environment.

Best regards, Richard Harrison, KB5WZI

2372. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 20:09:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <YfU3f.2336$BZ5.1833@newssvr13.news.prodigy.com>
Source record: 68870

Richard Clark wrote:
> This is an amusing irony of where you have found power where you have
> always posited there is none, and where you have rejected there is
> power when it has been shown to exist. Each example exposes your lack
> of experience in the scale of the error and its relation to the
> equipment measuring it.

In exactly the same way that forward power can exceed generated
power in a 1/4WL matching section of transmission line, so can
the forward irradiance in 1/4WL of thin film exceed the forward
irradiance in the air before incidence. That you are still so
terribly confused about such a simple fact of light physics is sad.
You obviously don't understand the information on the Melles-Groit
web page. http://www.mellesgriot.com/products/optics/oc_2_1.htm
Please study it until you understand it.
--
73, Cecil http://www.qsl.net/w5dxp

2373. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 20:15:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <clU3f.2338$BZ5.1425@newssvr13.news.prodigy.com>
Source record: 68871

Richard Clark wrote:

> As the last "thin-film" comment reveals, it
> has always been about how one mind can encompass two contradictory
> positions (total cancellation - non total cancellation) about the same
> mechanism (a quarterwave matching section).
>
> In other words: A Troll.

If the incident irradiance is a single frequency coherent signal,
the requirement for TOTAL CANCELLATION OF REFLECTIONS is still
that the index of refraction of the 1/4WL thin-film be the square
root of the medium upon which it is deposited. QED
--
73, Cecil http://www.qsl.net/w5dxp

2374. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 20:28:17 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <BxU3f.3682$2Y2.1086@trnddc05>
Source record: 68872

Richard,
What you said is largely accurate, however at low S/N ratios, or where the distortion becomes comparable to the signal level, the reading of the composite signal (signal+noise+distortion) with anything other than an RMS meter could produce erroneous results.

Joe
W3JDR

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:0510l1d9fbauafptjd41ul5l036qug97g6@4ax.com...
> On Fri, 14 Oct 2005 13:08:22 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >A meter, a pure 1kHz tone modulated signal generator and a 1kHz notch is all
> >that is needed. What happens if you don't have a "real" RMS meter? I don't
> >know.
>
> Hi Steve,
>
> You don't need a "real" RMS meter. The expressed requirement for a
> pure 1kHz tone provides the necessary sine wave shape such that it
> simply becomes a matter of scale calibration. If you had said a
> square wave 1KHz tone (nothing pure about that), then you would have
> to dig deep for a "real" RMS meter. That too, could be scaled, but I
> wouldn't count on it because it would be a rare amplifier chain that
> could faithfully keep it square - and the notch would inject it into
> the measurement as distortion and noise.
>
> 73's
> Richard Clark, KB7QHC

2375. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 20:32:14 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <sg40l11o0pfd08f8jlmtefpmeclb141km7@4ax.com>
Source record: 68873

On Fri, 14 Oct 2005 13:08:22 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
>Owen, (& crb)
> Your words are contrary to the way we measured it (Motorola). You say
>..."It is the ratio of signal to noise and distortion,..", but we measured
>not just the signal, but everything for the "top" of the ratio (which is
>used more like a reference as it is the more stable as signal level varies).
>I believe your last line saying wrt to the filtered tone supports this. It
>implies that the tone is (bandpass) filtered for one of the measurements and
>we don't do that.

It was a shabby description in my first post Steve, I wrote filtered
instead of unfiltered, had the "wrt", terms back to front at the and,
as you quoted signal to (N+D) when it is the total to (N+D). Wasn't
really worth 2/10, was it! I re-read it when I came back to add some
detail re a software approach and redrafted it.

My recollection was then when the scheme was introduced, one used a
Distortion Analyser, and I can't remember the early HP instrument, the
HP334A I mentioned in my follow up was a newer one. They are tedious,
whereas the R1013 or Sinadder or much more convenient, and the
integrated ones (like in the R2000) are much better.

Once you sort the issues of getting audio samples to a PC sound card
without hum and clipping, that approach can work well, and Spectrum
Lab works well... just it is a multipurpose tool for a simple job.
There are probably other software tools that are more targetted and
simpler to use.

>
>Joe's is a bit better of an explanation (the RMS meter and quantities
>ratioed).

Yes, but I don't believe most of the instruments acutally incorporate
a true RMS meter. I set about measuring the difference about six
months ago when I was doing calibration / validation measurements for
FSM (http://www.vk1od.net/fsm/) using custom software against the
R1013, and R2000, and a couple of HP334As. The error in using a
rectifier-average responding meter (as is typically done) is small
relative to the variance of such readings because of the variance of
the noise component.

>
>A meter, a pure 1kHz tone modulated signal generator and a 1kHz notch is all

>that is needed. What happens if you don't have a "real" RMS meter? I don't
>know.

Yes, I didn't mention that the 1KHz tone needs to be relatively low
distortion. For measuring 12dB SINAD, the demand is not onerous, but
it is important. The frequency of the tone is important as the notches
in semi automatic instruments are typically +/10Hz or so, so one needs
to verify that the SSG modulation oscillator is close enough. More
importantly when testing an SSB receiver (where you use a CW carrier),
that the carrier is kept "on frequency" for a 1KHz beat note.

Owen
--

2376. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 20:42:13 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ro50l1pc0sjam825pr5apnilemsovtvcck@4ax.com>
Source record: 68874

On Fri, 14 Oct 2005 16:22:39 GMT, Cecil Moore <mycall@arrl.net> wrote:

>It was previously reported that the path through the Bird
>is 40mm. The path through the Bird is actually about five

Cecil,

If you are referring to my statement in another thread, it was that the sampling element is about 40mm inside the 50 ohm Thruline section (ie that there is about 40mm of 50 ohm transmission line between the Bird 43 terminals and the sampling element), not as you have stated above.

Owen
--

2377. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 20:49:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <IRU3f.2343$BZ5.2042@newssvr13.news.prodigy.com>
Source record: 68875

Jim Kelley wrote:
> I think it might also be interesting to discuss the instance in which
> the Bird is interfaced with a real halfwave section.

If the Bird is inserted at a point where the net voltage divided
by the net current is equal to 50, apparently a 50 ohm Z0-match
is achieved at that point and any length of lossless 50 ohm coax
can be inserted without altering the forward/reflected conditions
in the adjacent transmission lines.
--
73, Cecil http://www.qsl.net/w5dxp

2378. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 21:07:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <g6V3f.2344$BZ5.1010@newssvr13.news.prodigy.com>
Source record: 68776

Owen Duffy wrote:

> On Fri, 14 Oct 2005 16:22:39 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>It was previously reported that the path through the Bird
>>is 40mm. The path through the Bird is actually about five
>
> If you are referring to my statement in another thread, it was that
> the sampling element is about 40mm inside the 50 ohm Thruline section
> (ie that there is about 40mm of 50 ohm transmission line between the
> Bird 43 terminals and the sampling element), not as you have stated
> above.

I'm sorry, Owen, I took your statement to mean that the total length
of path through the Bird is 40mm (1.5") which is not enough length
to force a 50 ohm environment. I downloaded the Bird manual this
morning and discovered that, unlike an MFJ, the path through the Bird
is about 5 inches and coaxial. I apologize to Bird and you Bird
experts for that bad assumption.
--
73, Cecil http://www.qsl.net/w5dxp

2379. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 21:20:22 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d7baa$4350216c$97d558d8$21686@ALLTEL.NET>
Source record: 68777

That explains why my new tuner failed to work. I have a rotary switch that selects 40mm of 50, 75,300, 450, and 600 ohm coax. I thought it should match anything! Now I see I have to go to 5" lengths. I should know better than to build anything before all the errata sheets are in.

I can use some additional diversion as almost all the soldering iron burns have healed.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:g6V3f.2344$BZ5.1010@newssvr13.news.prodigy.com...
> Owen Duffy wrote:
>
> > On Fri, 14 Oct 2005 16:22:39 GMT, Cecil Moore <mycall@arrl.net> wrote:
> >>It was previously reported that the path through the Bird
> >>is 40mm. The path through the Bird is actually about five
> >
> > If you are referring to my statement in another thread, it was that
> > the sampling element is about 40mm inside the 50 ohm Thruline section
> > (ie that there is about 40mm of 50 ohm transmission line between the
> > Bird 43 terminals and the sampling element), not as you have stated
> > above.
>
> I'm sorry, Owen, I took your statement to mean that the total length
> of path through the Bird is 40mm (1.5") which is not enough length
> to force a 50 ohm environment. I downloaded the Bird manual this
> morning and discovered that, unlike an MFJ, the path through the Bird
> is about 5 inches and coaxial. I apologize to Bird and you Bird
> experts for that bad assumption.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2380. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 21:23:25 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9e60l15ftmikao31ujkcbliu6t053qgtus@4ax.com>
Source record: 68778

On Wed, 12 Oct 2005 22:09:51 GMT, Owen Duffy <owen@no.where> wrote:

>The myth: Measurements with a Bird 43 of the conditions on the
>Thruline section are invalid unless it has some minimum length of 50
>ohm line on both sides of itself.
>

All,

Can I offer the suggestion that the key to understanding why this is so, it to understand the sampler.

I don't have the detail of the physical and electrical parameters of the Bird sampler, however I suspect that like so many other reflectometers, it comes down to a device that samples independently the net current and the net voltage associated with any travelling waves, and those RF samples are in proportion and phase relationship that when algebraicly added and rectified, they produce a DC voltage that is proportional to the power flow in one direction only (provided that Zo is real). The proportions calibrate the instrument for a specific V/I ratio.

Apart from mentioning that Zo must be real, and I will address that in another thread, Zo in the region where the sample is unimportant to the "proportion and phase relationship..." bit. Zo of the through line is important only to the extent that you would generally:
- not want a significant transformation of impedance between the load terminals and the calibrated sensor at that calibrated V/I ratio.
- not want a significant transformation of impedance between the generator and load terminals at that calibrated V/I ratio to minimise disruption to the system being measured.

Everyday we use instruments to measure something, somewhere and apply that knowledge to infer something else, somewhere else using appropriate other knowledge. For example, you might measure the voltage drop across a cathode resistor and make some reasonable inference about anode current using appropriate other knowledge. Making measurements with a Bird 43 in one place and inferring the situation somewhere else using appropriate other knowledge is reasonable.

For example, I may have an antenna system (say a loop) that uses a transmission line transformer (TLT) to transform the loop terminal Z to 50 ohms. I can attach the generator end of the TLT to the Bird 43, attach the Bird 43 via 50 ohm cable to a transceiver that is rated for a nominal 50+j0 ohm load, and proceed to adjust the antenna / TLT for

zero reflected power indication on the Bird 43 knowing that I can reasonably infer that the load presented to the transceiver will be approximately 50+j0 ohms using the knowledge that Bird readings indicate Z at that point is 50+j0 and there will be insignificant transformation on the 50 ohm cable to the transceiver. This is a proper and sound application of the instrument.

Did I get that wrong?

Did I need to mention environments?

Owen
--

2381. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 22:03:49 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <JVV3f.68$v_5.59@dukeread07>
Source record: 68779

Dave wrote:

> it gets me to their web site, but says:
>
> "Details for publication US06603440 were not found.
> Please use your browser's "back" button to return to the previous page, or
> follow one of the links on this page."
>
>
Thats wierd. I got right to the details page no problem...

could be a browser thing.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

2382. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 22:09:02 UTC
From: Dave <noone@nowhere.com>
Message-ID: <HPWdne7ov6sVsc3eRVn-jw@crocker.com>
Source record: 68780

couldn't be a browser problem, i'm using IE!

"N7ZZT - Eric Oyen" <n7zzt@127.0.0.1> wrote in message
news:JVV3f.68$v_5.59@dukeread07...
> Dave wrote:
>
>> it gets me to their web site, but says:
>>
>> "Details for publication US06603440 were not found.
>> Please use your browser's "back" button to return to the previous page,
>> or
>> follow one of the links on this page."
>>
>>
> Thats wierd. I got right to the details page no problem...
>
> could be a browser thing.
>
> --
> DE N7ZZT
> Eric Oyen
> Phoenix, Arizona
> e-mail: n7zzt(at)hotmail(dot)com
> the difference between intelligence and stupidity is that intelligence
> has its limits.

2383. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 22:25:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m4b0l1prao1vs8dmq20ahu6im9d8552t3l@4ax.com>
Source record: 68781

On Fri, 14 Oct 2005 20:28:17 GMT, "W3JDR" <joe@roccis.com> wrote:

>Richard,
>What you said is largely accurate, however at low S/N ratios, or where the
>distortion becomes comparable to the signal level, the reading of the
>composite signal (signal+noise+distortion) with anything other than an RMS
>meter could produce erroneous results.

Hi Joe,

In the practical world of SINAD (having tuned a number of GE and Motorolas), one is not very interested in how poor your set is, but rather meeting a service standard (that 12 dB which is as arbitrary as any).

I doubt if many of the current generation of commercial surplus equipment comes with a stock tester employing what would have been an expensive converter chip to insure RMS measurements. I come by that assessment by noting those I used employed standard meter movements. The first RMS meters I calibrated in the mid 70s came from Fluke (just up the highway), and the components of that circuit were scrubbed of all identification numbers or cast in epoxy. Such was the cachet of being hi-priced, and having others try to break into the market with knock-offs.

My Radio Shack multimeter makes that claim (ca 1995) and if memory serves, that Micronta's "True RMS" was barely capable of poor voice grade bandwidth. This was 20 years after Fluke, costing about as much (economic inflation), and not performing as well (technical deflation).

73's
Richard Clark, KB7QHC

2384. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 22:28:19 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <udb0l1pctnv72kfvamhj5hgp5evlpjfhv7@4ax.com>
Source record: 68782

On Fri, 14 Oct 2005 10:50:03 -0700, Tim Wescott <tim@seemywebsite.com>
wrote:

>bandpass filter for CW. This is _not_ the kind of thing you could do
>with FM.

Indeed Tim. The complications as I see it in predicting the SINAD for FM when you know the receiver NF is that most narrow band communications applications of FM are closer to PM because of the pre-emphasis characteristic.

FM + 6dB/octave preemphasis over the entire modulation passband is PM. (PM is where the modulation index (dev/fm) is independent of fm (the modulating frequency)).

However, the receivers in my experience are over de-emphasised (at the top end) presumably to get better SINAD. In fact, I think specifications of the de-emphasis curve are commonly stated along the lines of +1 to -3dB of -6dB demphasis relative to 1Khz over 300 to 3000Hz. This accomodates a over de-emphasis at the high end for little loss in intelligibility and a dB or so improvement in sensitivity figures.

Filter / demodulators and CTCSS IM also contribute to distortion products significantly.

The result of demod distortion, PM with a slope across the passband, and uncertain high pass filtering to accomodate CTCSS makes prediction of S/N out from C/N in a bit of a guess in FM comms receivers, not nearly as accurate as you suggest for linear receivers.

Owen
--

2385. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 23:07:44 UTC
From: jgboyles@aol.com
Message-ID: <1129331264.484540.307460@o13g2000cwo.googlegroups.com>
Source record: 68783

>
> THERE ARE ABOUT 4.17 WATTS OF REFLECTED ENERGY FLOWING BACK THROUGH THE
> BIRD AND THE BIRD COMPLETELY IGNORES IT. So the Bird is not even yielding
> valid readings for forward and reflected power through itself. That's
> exactly what I have been saying all along. If it were calibrated for
> 75 ohms, it would indicate the correct values.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil, With a 1/2 wl of 75 ohm line terminated with 50 ohms at both
the source and load end, the 4.17 watts reflected energy does not flow
back thru the Bird. With 100 watts incident on the source (Bird), 100
watts will be either radiated, or consumed as heat at the load end.
4.17 will be reflected back to the source. When it reaches the source,
a portion will be reflected back towards the load, and a portion
consumed as heat. ect. The small portion consumed by heat might
account for the 1/2 needle deflection Owen observed on reflected power.
4.17 watts does not flow back thru the Bird as reflected power, and
the Bird, of course acknowledges. I don't think the Bird ignores that.
I acknowledge that the Bird does not report the actual forward/reverse
power in this example
Gary N4AST

2386. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 23:47:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ttf0l1dqhd3rli549pnho72uc3dnch16hr@4ax.com>
Source record: 68784

On 14 Oct 2005 16:07:44 -0700, jgboyles@aol.com wrote:

> I don't think the Bird ignores that.

Hi Gary,

And none but one does.

> I acknowledge that the Bird does not report the actual forward/reverse
>power in this example

And this responds to a fabricated question.

Who would approach a Bird and expect it to in the first place? A lid.
This is like complaining that your speedometer doesn't report the
actual speed of the car passing you. Having said that, an entire
thread of correspondence could grow to show adapters and cables
between the two cars "could" contrive to make that happen, and then
the topic drift would blame the erroneous name of speedometer, when it
is only a highway-to-tire traction indicator - HTTTI.

If I were back in the calibration business, this stuff would be like
gold being pushed across the counter.
"It doesn't work when I put it into an out-of-spec system,
could you check the accuracy against a known load?"

I suppose most of the filthy lucre has been absorbed into either Iraq
or FEMA contracts.

73's
Richard Clark, KB7QHC

2387. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-14 23:59:36 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <chh0l1977152jjsq1tfv7fsdvv8p2thp96@4ax.com>
Source record: 68785

On Fri, 14 Oct 2005 21:23:25 GMT, Owen Duffy <owen@no.where> wrote:

>that when algebraicly added and rectified, they produce a DC voltage
>that is proportional to the power flow in one direction only (provided
>that Zo is real). The proportions calibrate the instrument for a

Sorry, that should be:

"that when algebraicly added and rectified, they produce a DC voltage
that is proportional to the square root of power flow in one direction
only (provided that Zo is real). The proportions calibrate the
instrument for a..."

Owen
--

2388. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 00:08:42 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <OKX3f.754$v_5.276@dukeread07>
Source record: 68786

Dave wrote:

> couldn't be a browser problem, i'm using IE!
>
I am an old user of mozilla (netscape, et al).

I don't use !E! because its a windows product and I don't use windows
(because its the biggest security hole known to man or beast alike)

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

2389. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 00:12:24 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <gmh0l11sv5a0tmd18sojqu0fn49h0f9id7@4ax.com>
Source record: 68787

On Thu, 13 Oct 2005 01:43:48 GMT, Cecil Moore <mycall@arrl.net> wrote:

>and not to be a myth at all. There's 104.17 watts of forward power
>through the Bird and 4.17 watts of reflected power back through the
>Bird. Why does the Bird ignore those actual power values?

I did not report or even measure such a thing.

It is your report based on something that you know or something that you measured without evidence of either measurements or detail of construction.

With respect Cecil, the statement is more an elaboration of the myth than convincing support for it.

This unsubstantiated premise seems the basis for nearly a hundred posts by many.

Owen
--

2390. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 00:40:34 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <6eY3f.305$W32.212@trnddc06>
Source record: 68788

Richard,

I understand the historical difficulties of making accurate RMS measurements, however I didn't know the original post only solicited ways to make the measurement with "current generation of commercial surplus equipment ". My intention was to point out some measurement nuances that might not be obvious at first glance.

Recently, it has become quite easy to do true RMS measurement at audio frequencies using DSP techniques. In fact at audio you can even do an accurate RMS measurement in DSP using a PIC microcontroller to sample the signal and perform the calculations.

Joe
W3JDR

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:m4b0l1prao1vs8dmq20ahu6im9d8552t3l@4ax.com...
> On Fri, 14 Oct 2005 20:28:17 GMT, "W3JDR" <joe@roccis.com> wrote:
>
>>Richard,
>>What you said is largely accurate, however at low S/N ratios, or where the
>>distortion becomes comparable to the signal level, the reading of the
>>composite signal (signal+noise+distortion) with anything other than an RMS
>>meter could produce erroneous results.
>
> Hi Joe,
>
> In the practical world of SINAD (having tuned a number of GE and
> Motorolas), one is not very interested in how poor your set is, but
> rather meeting a service standard (that 12 dB which is as arbitrary as
> any).
>
> I doubt if many of the current generation of commercial surplus
> equipment comes with a stock tester employing what would have been an
> expensive converter chip to insure RMS measurements. I come by that
> assessment by noting those I used employed standard meter movements.
> The first RMS meters I calibrated in the mid 70s came from Fluke (just
> up the highway), and the components of that circuit were scrubbed of
> all identification numbers or cast in epoxy. Such was the cachet of
> being hi-priced, and having others try to break into the market with
> knock-offs.
>
> My Radio Shack multimeter makes that claim (ca 1995) and if memory
> serves, that Micronta's "True RMS" was barely capable of poor voice

> grade bandwidth. This was 20 years after Fluke, costing about as much
> (economic inflation), and not performing as well (technical
> deflation).
>
> 73's
> Richard Clark, KB7QHC

2391. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 01:25:34 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <iUY3f.3893$Zv5.3644@newssvr25.news.prodigy.net>
Source record: 68789

Originally, two way shops set FM rigs up for 20 dB quieting, on a volt meter (crank up the signal until the AUDIO VOLTAGE, UNMODULATED, was 1/10th the voltage of a no signal audio output . Tho, for the most part, this works well, there are constraints on sensitivity, because of bandwidth concerns, and , as bandwidth is halved, the signal improvement is 6 dB (quadrupled). Sinad is Signal/Noise /signal/(noise+distortion) and in fact, in recent times , devices that will measure it are built into many pieces of test equipment (IFR meters comes to mind), also look for an outfit called "SINADDER" . The main thing is that it adds a "Bandwidth" component to the sensitivity equasion. It is measured with a 1 KHz tone, at (in FM), 3 KHz deviation- and the smaller the signal that is detectable , with this constraint, the more sensitive the reciever is considered to be! This also works at SSB/AM. Tho, it is true that this measures Sensitivity, it includes a BANDWIDTH component, that a (noise figure/ quieting) would NOT consider (at least fully!) Hopefully, this is helpful-- Jim NN7K

> For SSB and CW, on the other hand, the noise is purely additive so all
> you need to know is the receiver noise figure. Once you know that
> (assuming that it's not a really strange radio) you know everything
> about it's performance. Given the noise figure in dB you can easily
> calculate the 12dB SINAD should you be so inclined, as well as any other
> signal vs. noise figure you should want. You have a good reason to
> believe that the noise is white so you can even take an SSB receiver and
> calculate the noise figure of the thing after you tack on an audio
> bandpass filter for CW. This is _not_ the kind of thing you could do
> with FM.
>

2392. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 01:26:38 UTC
From: k <spam@uce.gov>
Message-ID: <iVY3f.588$Hs.136@tornado.socal.rr.com>
Source record: 68790

Well, why don't you just remove windows from your computer? What the
hell, use another OS or write one that suits you and doesn't have any
'holes'...har..

J

"N7ZZT - Eric Oyen" <n7zzt@127.0.0.1> wrote in message
news:OKX3f.754$v_5.276@dukeread07...
: Dave wrote:
:
: > couldn't be a browser problem, i'm using IE!
: >
: I am an old user of mozilla (netscape, et al).
:
: I don't use !E! because its a windows product and I don't use windows
: (because its the biggest security hole known to man or beast alike)
:
: --
: DE N7ZZT
: Eric Oyen
: Phoenix, Arizona
: e-mail: n7zzt(at)hotmail(dot)com
: the difference between intelligence and stupidity is that intelligence
: has its limits.

2393. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 02:39:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <68q0l1dkupiv31ii0tar0i2lnvqngcgbj5@4ax.com>
Source record: 68791

On Sat, 15 Oct 2005 01:26:38 GMT, "k" <spam@uce.gov> wrote:

>Well, why don't you just remove windows from your computer?

A visit to:
http://grc.com/default.htm
will resolve ALL issues of security that have originated from the
clown act of Windows sicurity development.

I've been on the web with Windows, without their updates for a decade,
and having observed all the cautionary tales and prescriptions and
tests offered at this web site above and I have endured EVERY mishap
that has come down the pike - and no failures or lost files.

I recently installed Win2K on a new laptop, and made the mistake of
attaching it to the Web to visit that web site, and within 10 seconds
I was under attack (messenger). I pulled that plug, and did my tests
by transferring all the executables from Gibson and Agnitum (firewall)
by Flash Drive between computers. That snuffed those suckers out.

My firewall alerts me to attacks like bugs hitting the zapper on a
summer evening. I take their IP and look them up for amusement.
Tonight I've been probed by Taiwan and Turkey and my firewall had them
standing in the queue, hat in hand like tradesmen at the back gate.
They will starve first before my system will even give them so much as
a handshake.

Now for the question of the day:

Does anyone want to really talk about fractals, or simply spit on
them?

2394. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 02:51:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <54r0l15dc7hguodl724i6aq3mqtm16jn5l@4ax.com>
Source record: 68792

On Sat, 15 Oct 2005 00:40:34 GMT, "W3JDR" <joe@roccis.com> wrote:

>I understand the historical difficulties of making accurate RMS
>measurements, however I didn't know the original post only solicited ways to
>make the measurement with "current generation of commercial surplus
>equipment ".

Hi Joe,

That was interjected by me, knowing the market of the past several
years being flooded after trunk systems began replacing older service.

>My intention was to point out some measurement nuances that
>might not be obvious at first glance.

Useful information, that.

>Recently, it has become quite easy to do true RMS measurement at audio
>frequencies using DSP techniques. In fact at audio you can even do an
>accurate RMS measurement in DSP using a PIC microcontroller to sample the
>signal and perform the calculations.

Yes, the miracle of Moore's law. 20 years ago I was with HP, here, to
help them introduce their 100KHz real-time dual channel audio spectrum
analyzer. That was a tremendous effort with a million lines of Pascal
code and 5 years in the making when most HP instrumentation hit the
market in 18 months from inception.

I got to know the range of FFTs under some of the most brilliant minds
on the topic. One, Nick Pendergrass, went on to teach at an eastern
university.

Today, it is an underclass topic, probably occupying no more than 6
weeks of instruction coupled to other interests. Still and all, I see
considerable errors of omission in the discussion. Such errors often
make the difference in delivering a serviceable performance compared
to that which is 100 times better (actually a million times, but few
could get their imagination around a number that big so I understate
it).

73's
Richard Clark, KB7QHC

2395. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 03:13:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Pt_3f.2657$tV6.918@newssvr27.news.prodigy.net>
Source record: 68793

Owen Duffy wrote:
> On Wed, 12 Oct 2005 22:09:51 GMT, Owen Duffy <owen@no.where> wrote:
>>The myth: Measurements with a Bird 43 of the conditions on the
>>Thruline section are invalid unless it has some minimum length of 50
>>ohm line on both sides of itself.
>>
> Can I offer the suggestion that the key to understanding why this is
> so, it to understand the sampler.

Again Owen, your own experiment using 75 ohm coax on each side of the Bird proved why the above is not a myth. The Bird didn't read the correct forward power on the 75 ohm coax. The Bird didn't read the correct reflected power on the 75 ohm coax. The SWR calculated using the Bird's readings does not represent the SWR on the 75 ohm coax.

> The proportions calibrate the instrument for a specific V/I ratio.

Yes, that ratio is 50 ohms for the Bird. Only a piece of 50 ohm coax will guarantee that Vfor/Ifor=Vref/Iref=50 ohms. You proved that a piece of 75 ohm coax will not do it.

> Did I need to mention environments?

No, but you should have. The Bird gives the correct forward and reflected power readings on the attached coax only in a 50 ohm environment. Your experiment proved that to be true.
--
73, Cecil http://www.qsl.net/w5dxp

2396. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 03:25:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <GE_3f.2659$tV6.1539@newssvr27.news.prodigy.net>
Source record: 68794

jgboyles@aol.com wrote:
> 4.17 watts does not flow back thru the Bird as reflected power, and
> the Bird, of course acknowledges.

Yes, I later realized that the Bird's internal feedline forms a
50 ohm Z0-match. Interference at the input and output of the Bird
causes no reflected energy to flow through the Bird. The reflected
energy from the load is re-reflected at the Bird output. The input
of the Bird causes reflections on the source side of the Bird. I
actually calculated all the interferring signals.

> I acknowledge that the Bird does not report the actual forward/reverse
> power in this example

That was the main point. If the Bird is embedded in something other
than a 50 ohm environment, it does not report the actual forward/reverse
power on the coax on either side of the Bird.
--
73, Cecil http://www.qsl.net/w5dxp

2397. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 03:27:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PG_3f.2661$tV6.1314@newssvr27.news.prodigy.net>
Source record: 68795

Richard Clark wrote:
> Who would approach a Bird and expect it to in the first place?

Someone who says that the environment surrounding the Bird
doesn't matter?
--
73, Cecil http://www.qsl.net/w5dxp

2398. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 03:37:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <MP_3f.2663$tV6.2360@newssvr27.news.prodigy.net>
Source record: 68796

Owen Duffy wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>and not to be a myth at all. There's 104.17 watts of forward power
>>through the Bird and 4.17 watts of reflected power back through the
>>Bird. Why does the Bird ignore those actual power values?
>
> I did not report or even measure such a thing.

Since I realized the Bird forms a Z0-match at its output that
statement should be ammended to say: There 104.17 watts of forward
energy flowing in the 75 ohm coax on each side of the Bird and 4.17
watts of reflected energy flowing in the 75 ohm coax on each side
of the Bird. Why does the Bird ignore those actual power values
existing in the actual system?

100W--tuner---75 ohm coax---Bird--1/2WL 75 ohm coax--50 ohm load
Pfor=104.17W--> Pfor=104.17W--> 100W delivered
<--Pref=4.17W <--Pref=4.17W

The Bird is not reading the proper values of forward and reflected
power on the 75 ohm coax because it is embedded in a non-50 ohm
environment.
--
73, Cecil http://www.qsl.net/w5dxp

2399. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 03:54:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p9v0l152c37kds9hnogki4gps7d95746lj@4ax.com>
Source record: 68797

On Sat, 15 Oct 2005 03:27:43 GMT, Cecil Moore <mycall@arrl.net> wrote:
>> Who would approach a Bird and expect it to in the first place?
>Someone who says that the environment surrounding the Bird
>doesn't matter?
On Sat, 15 Oct 2005 03:25:26 GMT, Cecil Moore <mycall@arrl.net> wrote:
> If the Bird is embedded in something other
>than a 50 ohm environment, it does not report the actual forward/reverse
>power on the coax on either side of the Bird.
Who would approach a Bird and expect it to in the first place?

2400. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 03:55:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vcv0l1h1i7c0nvtjeq7ko7gkno5ubch9hg@4ax.com>
Source record: 68798

On Sat, 15 Oct 2005 03:37:16 GMT, Cecil Moore <mycall@arrl.net> wrote:
>The Bird is not reading the proper values of forward and reflected
>power on the 75 ohm coax
Who would approach a Bird and expect it to in the first place?

2401. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 03:58:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <y7%3f.2665$tV6.2076@newssvr27.news.prodigy.net>
Source record: 68799

Richard Clark wrote:
> Who would approach a Bird and expect it to in the first place?

Someone who says that the environment surrounding the Bird
doesn't matter?
--
73, Cecil http://www.qsl.net/w5dxp

2402. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 04:00:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <i9%3f.2666$tV6.1264@newssvr27.news.prodigy.net>
Source record: 68800

Richard Clark wrote:
> Who would approach a Bird and expect it to in the first place?

Someone who thinks reflections cannot be eliminated by 1/4WL
of thin-film?
--
73, Cecil http://www.qsl.net/w5dxp

2403. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 04:07:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kvv0l1t08oujmb230d6bn4m64go4fllvo6@4ax.com>
Source record: 68801

On Sat, 15 Oct 2005 03:58:22 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Someone who says that the environment surrounding the Bird
>doesn't matter?
On Sat, 15 Oct 2005 03:25:26 GMT, Cecil Moore <mycall@arrl.net> wrote:
> If the Bird is embedded in something other
>than a 50 ohm environment, it does not report the actual forward/reverse
>power on the coax on either side of the Bird.
As you are the only one who maintains your own statement above, do you
really need a roll-call to differentiate yourself?

2404. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 04:13:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7401l11r26v5e99h4742d34kfeb0c1b081@4ax.com>
Source record: 68802

On Sat, 15 Oct 2005 04:00:14 GMT, Cecil Moore <mycall@arrl.net> wrote:
>> Who would approach a Bird and expect it to in the first place?
>Someone who thinks reflections cannot be eliminated by 1/4WL
>of thin-film?
Certainly one who thinks it does. And both having been disproved, it
stands to - well, let's just say that fulfilling that trite expression
with "reason" fulfills the cliche - but not the tenor. ;-)

2405. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 04:16:37 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <c601l1lqobeji7ldk1l74kevk7t0ra0gja@4ax.com>
Source record: 68803

On Sat, 15 Oct 2005 03:37:16 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>
>> Cecil Moore <mycall@arrl.net> wrote:
>>>and not to be a myth at all. There's 104.17 watts of forward power
>>>through the Bird and 4.17 watts of reflected power back through the
>>>Bird. Why does the Bird ignore those actual power values?
>>
>> I did not report or even measure such a thing.
>
>Since I realized the Bird forms a Z0-match at its output that
>statement should be ammended to say: There 104.17 watts of forward
>energy flowing in the 75 ohm coax on each side of the Bird and 4.17
>watts of reflected energy flowing in the 75 ohm coax on each side
>of the Bird. Why does the Bird ignore those actual power values
>existing in the actual system?
>
>100W--tuner---75 ohm coax---Bird--1/2WL 75 ohm coax--50 ohm load
> Pfor=104.17W--> Pfor=104.17W--> 100W delivered
> <--Pref=4.17W <--Pref=4.17W
>
>The Bird is not reading the proper values of forward and reflected
>power on the 75 ohm coax because it is embedded in a non-50 ohm
>environment.

This has nothing to do with the stated myth: Measurements with a Bird 43 of the conditions on the Thruline section are invalid unless it has some minimum length of 50 ohm line on both sides of itself.

Nothing in the myth stated or implied direct application of the measured conditions on the thruline section to any other connected (or disconnected for that matter) transmission line, that is entirely your construction.

It is a diversion Cecil.

Owen
--

2406. What is so special about '12 dB' SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 05:09:38 UTC
From: crb <anon@net.com>
Message-ID: <diq2l9062i@enews4.newsguy.com>
Source record: 68804

Still not sure what it is.

I know I do a test at work where I put in a 3 KHz deviated, 1 KHz tone into the FM receiver
port while probing an audio point going to the SINAD port on the test equipment.
Increasing the input level makes for a larger SINAD value (which makes sense)
Looking for at least 12 dB SINAD.
What is so special about 12?

Can't get my mind around it. Is the test tone 12 dB stronger than noise + distortion?

Is the the input value in dBm on the test equipment the sensitivity of the receiver at 12 dB SINAD.
The 'at 12 dB SINAD' still gets me.

2407. Re: Any experience using a Wonderpole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 05:28:29 UTC
From: nm5k@wt.net
Message-ID: <1129354109.945055.11620@g14g2000cwa.googlegroups.com>
Source record: 68805

I was seriously thinking of plunking down the $250 plus for the 40-foot
Wonderpole (www.wonderpole.com) to support parallel dipoles (probably
14
gauge stranded copper wire dipoles cut for 80, 40, and 20 meters), fed
with
600 ohm open wire, but I am concerned about: .....

Dunno. Costs too much vs a standard push up mast, unless it
lets you avoid guys, and I sorta doubt that being the metal mast
does require them. The antenna wires can guy the top, but you may
need a set of mid point guys. Another problem...I prefer a metal
mast as far as a lightning return. I've taken strikes, and never have
a
problem with the metal masts. I assume a glass mast would be toast
unless you ran wires down it as a lightning return.
The only advantage I could see is it's non conductive as far as rf,
but in the real world, I've never once had a coupling problem from
using a metal mast to support wire antennas.
MK

2408. Re: What is so special about '12 dB' SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 05:40:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <dd51l15kh47rcentf50r479n5d8gj1qbg4@4ax.com>
Source record: 68806

It is probably a good enough ratio to express the lower limit of
usable sensitivity for telephony applications.

If you mean why isn't it 11 or 13dB, it may hark back to the early
instruments that were intended for measuring THD and were scaled in %
distortion. 12dB SINAD corresponds to 25% distortion on such an
instrument.

Owen
--

2409. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 08:26:30 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <4350BD36.2000507@killspam.internode.on.net>
Source record: 68807

> Sorry, that should be:
>
> "that when algebraicly
Actually, that should be "algebraically" :)
Interesting thread though. BYW, is the Bird using the Bruene type bridge
or some other topology?
Alan

2410. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 08:27:46 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <uje1l11s82i9sojdkbishga8u66lb27pn8@4ax.com>
Source record: 68808

On Sat, 15 Oct 2005 18:26:30 +1000, Alan Peake
<adpeake@killspam.internode.on.net> wrote:

>
>> Sorry, that should be:
>>
>> "that when algebraicly
>Actually, that should be "algebraically" :)

Thanks. There were some other typos along the way, but that was
clearly a spelling mistake and the spell checker didn't find it.

>Interesting thread though. BYW, is the Bird using the Bruene type bridge

Is that BTW?

I understand that the Breune type bridge is one of the bothways
detector designs with a untapped toroidal current transformer. I doubt
the Bird sampler element is of that type.

It appears to have a flat section of line that is parallel to the coax
centre conductor and is presumably capacitively and inductively
coupled, and it uses some form of frequency compensation to give it
broadband response. You rotate the sampler element for measurement of
the opposite direction.

Someone here may have dismantled one to see how it works.

I suspect that all of these probe designs try to sample net V and I at
a point, and the extent by which they depart from a point sample
limits their upper frequency of usefulness.

Though there are several designs, they seem to broadly fall into two
main types, those where the sampler response is inherently
proportional to frequency (though they may be compensated as in the
Bird elements) or those where they are inherently broadband (as the
Bruene circuit).

Trust you are well. I heard you on 40m the other day, but only just!
Propagation has been pretty shabby.

Owen
--

2411. Re: What is so special about '12 dB' SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 08:36:40 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <sc34f.1650$6i4.230@newsfe7-gui.ntli.net>
Source record: 68809

After 36+years in the radcoms industry as a technician I have seen the move from S/N to SINAD at first hand.

SINAD has been around throughout my career but it is really on in the last 20 years that it has become most prevalent. The only reason that I can think that this has become so is the improvement in technology in the production of semiconductors and the consequent reduction in their noise levels, and the much wider use of FETs in front ends, which has resulted in S/N becoming an unrealistic measurement, the noise floor now being so low. Add to this the now commonplace use of SMD - which itself is 'quieter' - and improved circuit design, and the distortion in the modulation becomes of significantly greater importance.

Having said that 10% distortion was the norm when I started, whereas 2% or even less is today's standard, such are the improvements in that side of transmission, hence SINAD is probably now the only viable measurement.

Think of it like this: in the mid 70's most receivers would do 12dB S/N for around 0.6uV for 60% system modulation on a 12.5KHz channel spacing; today it is not uncommon to see 12dB SINAD (let alone S/N!) at not much above 0.2uV, and if you look at equipments of far eastern origin which may not have such good parameters (selectivity, adjacent channel rejection, etc) as UK/European designed units it can be 3dB better than that! Perhaps that's why you see a lot of oriental mobiles and portables but most associated base stations, especially those used on communal sites, are designed or made elsewhere (UK, USA, Germany, and New Zealand to mention but a few.)

Why 12dB? My two penn'uth is that the human ear is very tolerant of even harmonic distortion, especially 2nd which would predominate in the audio chain due to filtration, so someone somewhere defined 12dB (or about 25% distortion) as the maximum tolerable level for usable speech.

--
Woody

harrogate2 at ntlworld dot com

2412. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 08:52:04 UTC
From: sofasurfer@blclinks.net
Message-ID: <1129366324.812161.317540@g43g2000cwa.googlegroups.com>
Source record: 68810

Fedthecat wrote:

> Fe> Bought a small boombox. It has no antenna connection screws, just a
> Fe> built-in antenna. It gets no AM stations at all, just static. I work
> Fe> in a big GM plant (all steel building). Nobodies radios get AM.
>
> Fe> I mounted a car antenna on a bracket (isolated from the bracket with a
> Fe> rubber gromet) and mounted the bracket to a chain link fence 20ft from
> Fe> the plant. I hooked a coax center wire to the antenna base. I clamped
> Fe> the braided wire to the bracket. At the other end, inside the plant, I
> Fe> connected the center wire to the built-in antenna on the radio via an
> Fe> alligator clip. I still get no AM.

Just thought I'd update on my progress.
First off, I am 'Fedthecat' but I got a new email adderess so now I'm 'sofasurfer'.
Still haven't got AM to come in at work. But, I have some observations and clues.

1. I now have a differant boombox that has a moveable external AM loop and external AM (as well as FM) connections. This radio DOES get AM quite well outside the building. Also cars parked outside, 10 feet from where I put my antenna receive AM, therefore there IS a signal available.

2. Many people at work say that they've tried to get AM and all have found that there is no way to get AM in a steel building such as a GM plant.

3. One guy even tried differant types of antennas on the roof. But no signal would reach his radio inside the building.

4. The best I get is 760 AM, very fuzzy, barely understandable. 950 AM is worse. Those are the only two stations coming in at all. They do not fade in or out.

5.One day as I was fiddling with the wires on the back of the radio AM suddenly came in loud and clear with no static for about 1 second. I was unable to repeat this and that makes no sense to me.

6. I am concerned about my ground, although the 1 second clear signal tells me I have a good ground. The antenna is grounded to the chain link fense post which is set in concrete. Is concrete conductive to the ground or does it insulate? One person said the galvanized post is conductive but then said theres a nonconductive coating over the galvanization. Hmmmm.

7. Today I installed an automotive signal amplifier. At first I thought I detected a slight difference in the reception but then when I disconnected the amplifier there was no difference.

8.If a signal is getting to my outdoor antenna, is it nessessarily possible to get the signal to the radio or can there be circumstances which may make this impossible?

9.I'm used to working with electricity. If you touch a wire to a fairly clean metal ground you usually have a ground. Is the ground needed for radio signals different and much more critical so that anything less than a perfect ground will result in little or no signal?

10.I tried using a long wire antenna also but the result was identical to the automotive antenna I am currently using.

11. I haven't given up on the idea of building a loop antenna or adding some kind of circuitry but for now I want to try to keep it simple until I learn more.

Thanks again.

2413. Mosley Ta-33

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 11:02:24 UTC
From: avidfan <n0ny@nospam.mn.rr.com>
Message-ID: <be3d53526404499026e126f6dd7d2fdf@localhost.talkaboutradio.com>
Source record: 68855

I need a manual for this antenna. Looking for a link to a website that has one as a freebie.

2414. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 14:22:46 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Wg84f.1564$Yk6.777@trnddc01>
Source record: 68814

<sofasurfer@blclinks.net> wrote in message
news:1129366324.812161.317540@g43g2000cwa.googlegroups.com...
> Fedthecat wrote:
>
>> Fe> Bought a small boombox. It has no antenna connection screws, just a
>> Fe> built-in antenna. It gets no AM stations at all, just static. I work
>> Fe> in a big GM plant (all steel building). Nobodies radios get AM.
>>
>> Fe> I mounted a car antenna on a bracket (isolated from the bracket with
>> a
>> Fe> rubber gromet) and mounted the bracket to a chain link fence 20ft
>> from
>> Fe> the plant. I hooked a coax center wire to the antenna base. I
>> clamped
>> Fe> the braided wire to the bracket. At the other end, inside the plant,
>> I
>> Fe> connected the center wire to the built-in antenna on the radio via
>> an
>> Fe> alligator clip. I still get no AM.
>
>
> Just thought I'd update on my progress.
> First off, I am 'Fedthecat' but I got a new email adderess so now I'm
> 'sofasurfer'.
> Still haven't got AM to come in at work. But, I have some observations
> and clues.
>
> 1. I now have a differant boombox that has a moveable external AM loop
> and external AM (as well as FM) connections. This radio DOES get AM
> quite well outside the building. Also cars parked outside, 10 feet from
> where I put my antenna receive AM, therefore there IS a signal
> available.
>
> 2. Many people at work say that they've tried to get AM and all have
> found that there is no way to get AM in a steel building such as a GM
> plant.
>
> 3. One guy even tried differant types of antennas on the roof. But no
> signal would reach his radio inside the building.
>
> 4. The best I get is 760 AM, very fuzzy, barely understandable. 950 AM
> is worse. Those are the only two stations coming in at all. They do not
> fade in or out.
>

> 5.One day as I was fiddling with the wires on the back of the radio AM
> suddenly came in loud and clear with no static for about 1 second. I
> was unable to repeat this and that makes no sense to me.
>
> 6. I am concerned about my ground, although the 1 second clear signal
> tells me I have a good ground. The antenna is grounded to the chain
> link fense post which is set in concrete. Is concrete conductive to the
> ground or does it insulate? One person said the galvanized post is
> conductive but then said theres a nonconductive coating over the
> galvanization. Hmmmm.
>
> 7. Today I installed an automotive signal amplifier. At first I thought
> I detected a slight difference in the reception but then when I
> disconnected the amplifier there was no difference.
>
> 8.If a signal is getting to my outdoor antenna, is it nessessarily
> possible to get the signal to the radio or can there be circumstances
> which may make this impossible?
>
> 9.I'm used to working with electricity. If you touch a wire to a fairly
> clean metal ground you usually have a ground. Is the ground needed for
> radio signals different and much more critical so that anything less
> than a perfect ground will result in little or no signal?
>
> 10.I tried using a long wire antenna also but the result was identical
> to the automotive antenna I am currently using.
>
> 11. I haven't given up on the idea of building a loop antenna or adding
> some kind of circuitry but for now I want to try to keep it simple
> until I learn more.
>
> Thanks again.
>

Sofasurfer

It is difficult for me to believe that you installed (properly) an
amplified AM antenna from a modern car, on the outside of the metal
building, and didnt get decent reception.
Do you have some reason to *not* use the radio from a "broken car"?
Car radios are designed to work in the environment you have inside the
metal building at work.

You must already be aware that the problem you are encountering is the
result of the AM radio waves being unable to exist within a metal cage. It
is necessary to acquire the radio signal on the *outside* of that metal
box/building.
An amplifier *at the antenna* is required to then send the signal to the
radio.

Jerry

2415. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 14:26:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Dk84f.2043$D13.1155@newssvr11.news.prodigy.com>
Source record: 68811

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>Someone who thinks reflections cannot be eliminated by 1/4WL
>>of thin-film?
>
> Certainly one who thinks it does. And both having been disproved, ...

I guess you will take that delusion to your grave.
--
73, Cecil http://www.qsl.net/w5dxp

2416. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 14:38:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <rv84f.2044$D13.1567@newssvr11.news.prodigy.com>
Source record: 68812

Owen Duffy wrote:
> Nothing in the myth stated or implied direct application of the
> measured conditions on the thruline section to any other connected (or
> disconnected for that matter) transmission line, that is entirely your
> construction.
>
> It is a diversion Cecil.

No, it is the point that Reg and I were discussing long before
you entered the thread. Reg made the same same point a couple
of days ago.
--
73, Cecil http://www.qsl.net/w5dxp

2417. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 14:42:25 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <lz84f.2045$D13.1219@newssvr11.news.prodigy.com>
Source record: 68813

Alan Peake wrote:
> Interesting thread though. BYW, is the Bird using the Bruene type bridge
> or some other topology?

The Bird 43 manual is available at http://www.bird-electronic.com
--
73, Cecil http://www.qsl.net/w5dxp

2418. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 14:56:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <NM84f.16754$6e1.1309@newssvr14.news.prodigy.com>
Source record: 68815

Owen Duffy wrote:
> This has nothing to do with the stated myth: Measurements with a Bird
> 43 of the conditions on the Thruline section are invalid unless it has
> some minimum length of 50 ohm line on both sides of itself.

Would you be willing to make the same statement about an MFJ wattmeter?
--
73, Cecil http://www.qsl.net/w5dxp

2419. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 15:17:03 UTC
From: Dave <noone@nowhere.com>
Message-ID: <UtSdnXLIM5PngMzeRVn-ig@crocker.com>
Source record: 68816

"Cecil Moore" <mycall@arrl.net> wrote in message
news:NM84f.16754$6e1.1309@newssvr14.news.prodigy.com...
> Owen Duffy wrote:
>> This has nothing to do with the stated myth: Measurements with a Bird
>> 43 of the conditions on the Thruline section are invalid unless it has
>> some minimum length of 50 ohm line on both sides of itself.
>
> Would you be willing to make the same statement about an MFJ wattmeter?

now your are just trying to muddy the waters... i wouldn't trust an mfj to
measure anything!

2420. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 15:59:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4q92l1lr0dbte2fbt4c5mr6k0uh9otl6bn@4ax.com>
Source record: 68818

On Sat, 15 Oct 2005 14:26:43 GMT, Cecil Moore <mycall@arrl.net> wrote:
>I guess you will take that delusion to your grave.
Yet more guessing?

2421. tvi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 15:59:59 UTC
From: ml <m@di.net>
Message-ID: <m-634C88.11594715102005@news.verizon.net>
Source record: 68817

I was wondering if perhaps somone can help me figure out the best way to track down why i suddenly seem to be giving myself some tvi

i didn't make any changes, i had a tv in my shack i have more than one rig so it's not a bad rig

seems the tvi is comming from within the room (not from the roof)

my grounds seem same as always but the set really is totally wiped out even if i ut the rig to 1w the tv is totally overloaded sometimes the tv even seems sorta turn off if i key

my cables to the rig seem ok same as always i seem to be missing something

2422. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 16:03:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pr92l1995o2tjbd72gt35ets5frkr5h5tl@4ax.com>
Source record: 68819

On Sat, 15 Oct 2005 14:38:15 GMT, Cecil Moore <mycall@arrl.net> wrote:
>long before you entered the thread
More guessing, and certainly poor research. As many may acknowledge,
a glance at the beginning of this thread dominates all speculation
about who entered when.

No doubt a response is in order as to what you "meant" - as is so
often the case.

2423. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 16:07:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <SO94f.16762$6e1.4730@newssvr14.news.prodigy.com>
Source record: 68821

Dave wrote:
> "Cecil Moore" <mycall@arrl.net> wrote:
>
>>Owen Duffy wrote:
>>>This has nothing to do with the stated myth: Measurements with a Bird
>>>43 of the conditions on the Thruline section are invalid unless it has
>>>some minimum length of 50 ohm line on both sides of itself.
>>
>>Would you be willing to make the same statement about an MFJ wattmeter?
>
> now your are just trying to muddy the waters... i wouldn't trust an mfj to
> measure anything!

No, I'm just trying to get back to the original discussion which
was: Do SWR meters need 50 ohm coax surrounding them to establish
the assumed 50 ohm environment? The majority of SWR meters have
no Thruline and MFJ seems to make no attempt to establish a 50
ohm environment like Bird does. What is the Z0 of a meandering wire
surrounded by an aluminum box?

The original discussion (V/I ratio is forced to Z0) had nothing to
do with Bird wattmeters. The original discussion was about SWR meters
in general (which the Bird is not). The mythbusters thing was an
interesting diversion away from the original question which remains
unanswered.
--
73, Cecil http://www.qsl.net/w5dxp

2424. Re: tvi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 16:07:22 UTC
From: Dave <noone@nowhere.com>
Message-ID: <0ISdneFaB9TYtMzenZ2dnUVZ_sudnZ2d@crocker.com>
Source record: 68820

i would guess that you lost a ground connection on a coax. check all the
connectors and be sure the shields are all well connected.

"ml" <m@di.net> wrote in message
news:m-634C88.11594715102005@news.verizon.net...
>I was wondering if perhaps somone can help me figure out the best way to
> track down why i suddenly seem to be giving myself some tvi
>
> i didn't make any changes, i had a tv in my shack i have more than one
> rig so it's not a bad rig
>
> seems the tvi is comming from within the room (not from the roof)
>
> my grounds seem same as always but the set really is totally wiped out
> even if i ut the rig to 1w the tv is totally overloaded sometimes
> the tv even seems sorta turn off if i key
>
> my cables to the rig seem ok same as always i seem to be missing
> something

2425. Re: Mosley Ta-33

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 16:12:52 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <VbGdnVccrYbQt8zeRVn-vQ@comcast.com>
Source record: 68822

"avidfan" <n0ny@nospam.mn.rr.com> wrote in message
news:be3d53526404499026e126f6dd7d2fdf@localhost.talkaboutradio.com...
>I need a manual for this antenna. Looking for a link to a website that has
> one as a freebie.
>
Why not try http://www.mosley-electronics.com/ .

Tam/WB2TT

2426. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 16:18:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <iZ94f.16765$6e1.14105@newssvr14.news.prodigy.com>
Source record: 68823

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>I guess you will take that delusion to your grave.
>
> Yet more guessing?

It's a guess as to whether you are going to correct
your errors about thin-film coatings before you
expire. What is it about the following that you don't
understand?

www.mellesgriot.com/products/optics/oc_2_1.htm

"Thin-Film Interference"

"Thin-film coatings also rely on the principles of interference. Thin
films are dielectric or metallic materials whose thickness is comparable
to, or less than, the wavelength of light."

Speaking of 1/4WL thin-film coatings:

"Clearly, if the wavelength of the incident light and the thickness
of the film are such that a phase difference exists between reflections
of p, then reflected wavefronts interfere destructively, and overall
reflected intensity is a minimum. If the two reflections are of equal
amplitude, then this amplitude (and hence intensity) minimum will be
zero."

"Amplitude minimum equal zero" means all reflections have been eliminated.
--
73, Cecil http://www.qsl.net/w5dxp

2427. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 16:26:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <g5a4f.16766$6e1.11835@newssvr14.news.prodigy.com>
Source record: 68824

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>long before you entered the thread

Canceled it immediately after I wrote it when I realized the
subject line had changed.

> More guessing, and certainly poor research. As many may acknowledge,
> a glance at the beginning of this thread dominates all speculation
> about who entered when.
>
> No doubt a response is in order as to what you "meant" - as is so
> often the case.

No doubt an apology is in order. The posting no longer exists
on my news-server. I apologize that my canceled posting made
it off my news-server. Sorry, my subject line font is so small
I cannot read it without a magnifying glass.
--
73, Cecil http://www.qsl.net/w5dxp

2428. Re: tvi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 16:27:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <e6a4f.16767$6e1.7549@newssvr14.news.prodigy.com>
Source record: 68825

ml wrote:
> my cables to the rig seem ok same as always i seem to be missing
> something

Did you try a different band/frequency?
--
73, Cecil http://www.qsl.net/w5dxp

2429. What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:05:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dirctk$t69$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68676

- or even more vague - an assumed 50-ohm environment?

Or an evironment of any other impedance.

An engineering definition please! In plain English.

Then perhaps I can understand what you are all waffling about.

Thank you.

Reg, G4FGQ.

2430. Re: tvi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:22:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dirdtifif1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68679

Something has changed in the vicinity. Has anybody parked a great
metal-clad vehicle near to your home? Or shifted anything else which
could behave as a reflector of radio waves.

Or has the room furniture, including the TV set, been changed around
recently?

Try changing the TV set. What happens?

Reg.
==========

"ml" <m@di.net> wrote in message
news:m-634C88.11594715102005@news.verizon.net...
> I was wondering if perhaps somone can help me figure out the best
way to
> track down why i suddenly seem to be giving myself some tvi
>
> i didn't make any changes, i had a tv in my shack i have more than
one
> rig so it's not a bad rig
>
> seems the tvi is comming from within the room (not from the roof)
>
> my grounds seem same as always but the set really is totally wiped
out
> even if i ut the rig to 1w the tv is totally overloaded
sometimes
> the tv even seems sorta turn off if i key
>
> my cables to the rig seem ok same as always i seem to be missing
> something

2431. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:23:30 UTC
From: Dave <noone@nowhere.com>
Message-ID: <xM6dnXAgarCApszenZ2dnUVZ_tKdnZ2d@crocker.com>
Source record: 68677

"Cecil Moore" <mycall@arrl.net> wrote in message
news:SO94f.16762$6e1.4730@newssvr14.news.prodigy.com...
> Dave wrote:
>> "Cecil Moore" <mycall@arrl.net> wrote:
>>
>>>Owen Duffy wrote:
>>>>This has nothing to do with the stated myth: Measurements with a Bird
>>>>43 of the conditions on the Thruline section are invalid unless it has
>>>>some minimum length of 50 ohm line on both sides of itself.
>>>
>>>Would you be willing to make the same statement about an MFJ wattmeter?
>>
>> now your are just trying to muddy the waters... i wouldn't trust an mfj
>> to measure anything!
>
> No, I'm just trying to get back to the original discussion which
> was: Do SWR meters need 50 ohm coax surrounding them to establish
> the assumed 50 ohm environment? The majority of SWR meters have
> no Thruline and MFJ seems to make no attempt to establish a 50
> ohm environment like Bird does. What is the Z0 of a meandering wire
> surrounded by an aluminum box?
>
> The original discussion (V/I ratio is forced to Z0) had nothing to
> do with Bird wattmeters. The original discussion was about SWR meters
> in general (which the Bird is not). The mythbusters thing was an
> interesting diversion away from the original question which remains
> unanswered.
> --

an interesting diversion until everyone was convinced that you were off the wall. now its time to re-open a dead thread???.

as far as cheap swr meters, the daiwa, swan, and mfj manuals all require 50 ohm coax 'for accurate readings'... a joke by any standard of measurement for that type of instrument. but just to put this one to rest quickly... i set up my tdr and ran some quick measurements. this tdr will resolve a 6" 75 ohm jumper in the 25' or so of 50 ohm test cable that i used. i measured an mfj-815b and a daiwa ns-660pa and they are indistiguishable from the 50 ohm line. so the answer is yes, they do internally look like a 50 ohm line section.

2432. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:24:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <IJqdnY6B9pvRpszeRVn-sA@crocker.com>
Source record: 68678

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dirctk$t69$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>- or even more vague - an assumed 50-ohm environment?
>
> Or an evironment of any other impedance.
>
> An engineering definition please! In plain English.
>
> Then perhaps I can understand what you are all waffling about.
>
> Thank you.

don't bother, its a figment of cecil's imagination and creative vocabulary.

2433. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:38:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q0f2l1ppjk3l5skliapc9qhjsiro2hcu0u@4ax.com>
Source record: 68680

On 15 Oct 2005 01:52:04 -0700, sofasurfer@blclinks.net wrote:

>5.One day as I was fiddling with the wires on the back of the radio AM
>suddenly came in loud and clear with no static for about 1 second. I
>was unable to repeat this and that makes no sense to me.

Hi OM,

It does make sense, what you are describing in the place of sense is
frustration.

That you got a boomin' signal proves that it exists on the antenna,
where the antenna is. It also proves your method of attachment, or
the radio is FUBAR. If this happened with two good, known working
radios, it then proves the problem is with your attachment.

All of this is clear beyond one second.

Most radios that offer the option of external/internal antennas also
demand a switch be thrown to actually make the change. This switch
may not be the best of devices - and that is your best hope, that or
you are inadvertently shorting the input (this goes back to the
evidence pointing at your skill in attaching the antenna).

Sounds like it is time to call in another set of eyes looking over
your shoulder. Diagnosis over the Web has its limits in achieving a
solution to a hardware problem at the most fundamental level. Whoever
is looking needn't be an expert, or even anything more than sentient.
They need only ask the right question at the right time:
"Howcum do it you like that?"
To which you respond:
"Damn, I meant to...."
and the radio begins to play. History is full of such epiphanies.

73's
Richard Clark, KB7QHC

2434. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:41:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7nf2l1l2j1188en5vf424dssfhbl6mngot@4ax.com>
Source record: 68681

On Sat, 15 Oct 2005 16:18:22 GMT, Cecil Moore <mycall@arrl.net> wrote:
>> Yet more guessing?
>It's a guess
and it took 32 lines to say that? I can understand why editors dump
your submissions.

2435. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:52:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Plb4f.2438$BZ5.1662@newssvr13.news.prodigy.com>
Source record: 68682

Reg Edwards wrote:
> - or even more vague - an assumed 50-ohm environment?
> Or an evironment of any other impedance.

The transmission line reflection model tells us that the Z0
of a transmission lines forces the following relationship.

Vfor/Ifor = Vref/Iref = Z0

A "50 ohm environment" used in the context of the previous
discussion would be one in which the above relationship
is forced on the system at certain points in the system.

600 ohm transmission line going from a tuner/balun to an
antenna establishes a 600 ohm environment for the signals
on the transmission line. An SWR meter calibrated for 600
ohms will indicate the actual SWR.

About a year ago, based on a discussion that you and I were
having, I asked the sci.physics.electromag newsgroup how
long a piece of RG-213 coax has to be to establish the
above relationship. The answer was that the non-TEM product
terms decrease at about 1/e every two inches for RG-213.

The RG-400 coax leads going to and from my SWR meter are
two feet each. So I asserted to you that my SWR meter
was reading the actual SWR in the middle of that run of
RG-400. I think you disagreed with my assertion but I
cannot remember for sure.
--
73, Cecil http://www.qsl.net/w5dxp

2436. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:54:33 UTC
From: Dave <noone@nowhere.com>
Message-ID: <x5idnelwu5f438zeRVn-iQ@crocker.com>
Source record: 68683

"Dave" <noone@nowhere.com> wrote in message
news:xM6dnXAgarCApszenZ2dnUVZ_tKdnZ2d@crocker.com...
>
> "Cecil Moore" <mycall@arrl.net> wrote in message
> news:SO94f.16762$6e1.4730@newssvr14.news.prodigy.com...
>> Dave wrote:
>>> "Cecil Moore" <mycall@arrl.net> wrote:
>>>
>>>>Owen Duffy wrote:
>>>>>This has nothing to do with the stated myth: Measurements with a Bird
>>>>>43 of the conditions on the Thruline section are invalid unless it has
>>>>>some minimum length of 50 ohm line on both sides of itself.
>>>>
>>>>Would you be willing to make the same statement about an MFJ wattmeter?
>>>
>>> now your are just trying to muddy the waters... i wouldn't trust an mfj
>>> to measure anything!
>>
>> No, I'm just trying to get back to the original discussion which
>> was: Do SWR meters need 50 ohm coax surrounding them to establish
>> the assumed 50 ohm environment? The majority of SWR meters have
>> no Thruline and MFJ seems to make no attempt to establish a 50
>> ohm environment like Bird does. What is the Z0 of a meandering wire
>> surrounded by an aluminum box?
>>
>> The original discussion (V/I ratio is forced to Z0) had nothing to
>> do with Bird wattmeters. The original discussion was about SWR meters
>> in general (which the Bird is not). The mythbusters thing was an
>> interesting diversion away from the original question which remains
>> unanswered.
>> --
>
> an interesting diversion until everyone was convinced that you were off
> the wall. now its time to re-open a dead thread???.
>
> as far as cheap swr meters, the daiwa, swan, and mfj manuals all require
> 50 ohm coax 'for accurate readings'... a joke by any standard of
> measurement for that type of instrument. but just to put this one to rest
> quickly... i set up my tdr and ran some quick measurements. this tdr will
> resolve a 6" 75 ohm jumper in the 25' or so of 50 ohm test cable that i
> used. i measured an mfj-815b and a daiwa ns-660pa and they are
> indistiguishable from the 50 ohm line. so the answer is yes, they do
> internally look like a 50 ohm line section.
>

ah, good cecil hasn't replied yet... sorry, i should have put this in the same message, but the sun was trying to come out and i had to take advantage of it. we haven't seen the sun here for the last 10 days which is the only reason i was bored enough to bother getting into one of these 'discussions' again.

now for the other part of the story. cecil states that a 50 ohm 'environment' must be established around these meters to get proper readings. this 'environment' requires some unknown length of 50 ohm cable on both sides of the meter. i can disprove this one easily... i again used the two meters above. first, attach 50 ohm dummy load to the meter, set transmitter to 100w forward on the meter, read reverse... there is always some small movement, but not much more than a needle width on either one. now, get 1/2 wave of 75 ohm cable, attach between the dummy load and the meter antenna output... again adjust for 100w forward and voila, same needle wiggle as before. what does this mean? well, if indeed the meter was relying on the length of 50 ohm coax on the output to 'establish the environment' as cecil seems to think is necessary then the 75 ohm cable should have upset this 'environment' and caused an incorrect reading... since the reading was correct for a 50 ohm meter then it must be that the required length of 50 ohm cable is zero.

now of course cecil will rant and rave and say the meter is reading incorrectly since there is obviously some reflected power in the 75 ohm cable. and he will be correct on that point, however, once you change the reference Zo to 50 ohms inside the meter there is no reflected power to measure since the load presented at the end of the 75 ohm line is 50 ohms. QED.

2437. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 17:57:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jqb4f.2439$BZ5.1729@newssvr13.news.prodigy.com>
Source record: 68684

Dave wrote:
> an interesting diversion until everyone was convinced that you were off the
> wall. now its time to re-open a dead thread???.

No, an interesting diversion that has been resolved. Time to return
to the real issue.

> as far as cheap swr meters, the daiwa, swan, and mfj manuals all require 50
> ohm coax 'for accurate readings'... a joke by any standard of measurement
> for that type of instrument. but just to put this one to rest quickly... i
> set up my tdr and ran some quick measurements. this tdr will resolve a 6"
> 75 ohm jumper in the 25' or so of 50 ohm test cable that i used. i measured
> an mfj-815b and a daiwa ns-660pa and they are indistiguishable from the 50
> ohm line. so the answer is yes, they do internally look like a 50 ohm line
> section.

Try it with 75 ohm coax. I suspect they will be equally indistinguishable
from 75 ohm line.
--
73, Cecil http://www.qsl.net/w5dxp

2438. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 18:05:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <rxb4f.2442$BZ5.2186@newssvr13.news.prodigy.com>
Source record: 68685

Dave wrote:
> don't bother, its a figment of cecil's imagination and creative vocabulary.

Actually, the question logically follows from the reflection model.
Under what boundary conditions does a piece of transmission line
force Vfor/Ifor = Vref/Iref = Z0 to a specified accuracy?
--
73, Cecil http://www.qsl.net/w5dxp

2439. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 18:25:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <2Qb4f.2443$BZ5.533@newssvr13.news.prodigy.com>
Source record: 68686

Dave wrote:
> however, once you change the
> reference Zo to 50 ohms inside the meter there is no reflected power to
> measure since the load presented at the end of the 75 ohm line is 50 ohms.

The question remains: Does the MFJ's physical design ensure the
physical reference Z0 is 50 ohms or would it perform just as
well in a 75 ohm enviornment simply by recalibrating it for
75 ohms?

In other words, it is sampling a voltage and current completely
divorced from any *physical* reference Z0. The actual reference
depends upon an arbitrary setting of a calibration cap which
has no effect at all on the *physical* reference Z0.
--
73, Cecil http://www.qsl.net/w5dxp

2440. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 18:30:15 UTC
From: sofasurfer@blclinks.net
Message-ID: <1129401015.472870.272810@g49g2000cwa.googlegroups.com>
Source record: 68687

>It is difficult for me to believe that you installed (properly) an
>amplified AM antenna from a modern car, on the .of the metal
>building,

I installed the amplifier at the radio. I didn't know any better but
now I do. I'll try to put it outside by the antenna but I need to find
a 110v power source outside to do it.

>Do you have some reason to *not* use the radio from >a "broken car"?

>You must already be aware that the problem you are >encountering is the
>result of the AM radio waves being unable to exist within a metal cage.

>I'm about to go get a auto radio to try out.

AM signal cannot EXIST in metal building? I thought the problem was
simply that it could not penatrate metal building, or is this whatr you
mean.

2441. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 18:30:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n6i2l1hmvvt2ha7nocncd5ek6rqg5q0so5@4ax.com>
Source record: 68688

On Sat, 15 Oct 2005 17:52:47 GMT, Cecil Moore <mycall@arrl.net> wrote:
> I cannot remember for sure.
Let's see, you know the news group, you know the context, you know the time, you know the correspondents, you may have even "quoted" the material (now truly suspect) - but sadly you forget the details that are somehow unretrievable from a simple google search with such a wealth of key terms and specific constraints.

And from this you've been sowing an itinerant thought as proof....

How is this distinguished from trolling?

2442. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 18:37:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pmi2l1lannlspqde1kjmm9db8dgocvek7h@4ax.com>
Source record: 68690

On Sat, 15 Oct 2005 18:25:02 GMT, Cecil Moore <mycall@arrl.net> wrote:
>a calibration cap which has no effect at all on the *physical* reference Z0.

If it had an effect, the Z would change, wouldn't it? The cap has a
Z, that much is sure. The purpose of the cap is not what you ascribe
to it - but that is par for the course as this inclusion quoted above
has no meaning either in or out of context.

2443. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 18:38:04 UTC
From: Dave <noone@nowhere.com>
Message-ID: <6YadnQU_26AF0czeRVn-hQ@crocker.com>
Source record: 68689

"Cecil Moore" <mycall@arrl.net> wrote in message
news:jqb4f.2439$BZ5.1729@newssvr13.news.prodigy.com...
> Dave wrote:
>> an interesting diversion until everyone was convinced that you were off
>> the wall. now its time to re-open a dead thread???.
>
> No, an interesting diversion that has been resolved. Time to return
> to the real issue.
>
>> as far as cheap swr meters, the daiwa, swan, and mfj manuals all require
>> 50 ohm coax 'for accurate readings'... a joke by any standard of
>> measurement for that type of instrument. but just to put this one to
>> rest quickly... i set up my tdr and ran some quick measurements. this
>> tdr will resolve a 6" 75 ohm jumper in the 25' or so of 50 ohm test cable
>> that i used. i measured an mfj-815b and a daiwa ns-660pa and they are
>> indistiguishable from the 50 ohm line. so the answer is yes, they do
>> internally look like a 50 ohm line section.
>
> Try it with 75 ohm coax. I suspect they will be equally indistinguishable
> from 75 ohm line.

ok, just for you i swapped all the cables around. and you are wrong, it is
not indistinguishable from 75 ohms, it is easily picked out as a 50 ohm
section.

2444. Re: tvi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 18:40:19 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11l2j8q4cjg910f@corp.supernews.com>
Source record: 68691

Check the tv connectors....Sometimes the tv coax's center conductor gets a
bit of corrosion or the connectors get flakey.
"ml" <m@di.net> wrote in message
news:m-634C88.11594715102005@news.verizon.net...
>I was wondering if perhaps somone can help me figure out the best way to
> track down why i suddenly seem to be giving myself some tvi
>
> i didn't make any changes, i had a tv in my shack i have more than one
> rig so it's not a bad rig
>
> seems the tvi is comming from within the room (not from the roof)
>
> my grounds seem same as always but the set really is totally wiped out
> even if i ut the rig to 1w the tv is totally overloaded sometimes
> the tv even seems sorta turn off if i key
>
> my cables to the rig seem ok same as always i seem to be missing
> something

2445. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 19:02:58 UTC
From: Dave <noone@nowhere.com>
Message-ID: <x4WdnfqFsq3zz8zeRVn-gA@crocker.com>
Source record: 68692

"Cecil Moore" <mycall@arrl.net> wrote in message
news:rxb4f.2442$BZ5.2186@newssvr13.news.prodigy.com...
> Dave wrote:
>> don't bother, its a figment of cecil's imagination and creative
>> vocabulary.
>
> Actually, the question logically follows from the reflection model.
> Under what boundary conditions does a piece of transmission line
> force Vfor/Ifor = Vref/Iref = Z0 to a specified accuracy?

then look up article 3.19 in 'fields and waves in communications electronics' which is where they derive the fringe effects for a step change in spacing between two plates. this is where they refer you for calculating the effects of evanescent modes from a more complex problem stating that the results are identical with the static case in 3.19... in the derivation of the complex case of a step change in a cable they show that a single lumped capacitance added at the step is an adequate representation of the discontinuity when calculating the evanescent modes below cutoff. in 3.19 if you disregard the fields along the length of the step it ends up in an equation: Z=h/pi(exp(pi*W/V0)-1-pi*W/V0_j*pi) the important part is obvioulsy the decay factor in the exponential which goes as exp(-x/h) where h is the separation in the planes... or you get one 1/e reduction for each distance equal to the spacing which in rg-58 or rg-8x that i used is something like 1mm or less.. so how far down do you want to be? in 4.5mm you are down to 1% which is well under the accuracy of these cheap meters, and much less than the length of even the connectors on the meters.

2446. can I / can't I ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 19:06:28 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <cpc4f.31525$Lp.19278@bignews5.bellsouth.net>
Source record: 68693

Any reason I shouldn't use a choke balun out of my tuner to feed ladderline up to a dipole?

2447. Re: What is so special about '12 dB' SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 19:07:48 UTC
From: fmmck@aol.com
Message-ID: <fmmck-1510051507490001@ac8a5544.ipt.aol.com>
Source record: 68694

In article <diq2l9062i@enews4.newsguy.com>, crb <anon@net.com> wrote:

> Is the the input value in dBm on the test equipment the sensitivity of
> the receiver at 12 dB SINAD.
> The 'at 12 dB SINAD' still gets me.

CRB-

Years ago sensitivity might have been measured using a "20 dB quieting" method. You would inject an unmodulated carrier and increase its level until the noise output of the receiver decreased to one tenth of the no-signal value. This might work for tuning to improve that one receiver's sensitivity, but it isn't the greatest for comparing different receivers with different bandwidths.

Isn't SINAD an acronym for "Signal In the presence of Noise And Distortion"? I don't fully understand how it works, but assume there is a 1 KHz filter feeding one channel that is compared to an un-filtered channel.

What I want to know is how to build one. Does anyone know of any SINAD construction articles?

73, Fred, K4DII

2448. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 20:28:43 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o8p2l15pvn3l2omehk30hicjjogv7hnbpm@4ax.com>
Source record: 68695

On Sat, 15 Oct 2005 17:57:35 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Try it with 75 ohm coax. I suspect they will be equally indistinguishable
>from 75 ohm line.

Cecil, you have got everyone else running around based on your
apparent misconceptions.

Is it not time you put in some time on the experimental side to
support / validate your conceptual contribution?

Enough of the "I suspect", "I seriously doubt". Where does that fit in
scientific method... you are not the eminent professor running a bunch
of PHD students around.

Owen
--

2449. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 20:37:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <XLd4f.3909$7h7.1047@newssvr21.news.prodigy.com>
Source record: 68696

Richard Clark wrote:
> On Sat, 15 Oct 2005 18:25:02 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>a calibration cap which has no effect at all on the *physical* reference Z0.
>
> If it had an effect, the Z would change, wouldn't it? The cap has a
> Z, that much is sure. The purpose of the cap is not what you ascribe
> to it - but that is par for the course as this inclusion quoted above
> has no meaning either in or out of context.

Here's a schematic of an MFJ SWR meter at the bottom:

http://www.mfjenterprises.com/man/pdf/MFJ-816.pdf

What do you think is the purpose of the 10pf variable cap
if not to vary the voltage in the voltage divider?

The question is: Between the "transmitter" terminal and
the "antenna" terminal, what determines the physical
characteristic impedance of the sampling circuit?
--
73, Cecil http://www.qsl.net/w5dxp

2450. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 20:38:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <TMd4f.3910$7h7.2837@newssvr21.news.prodigy.com>
Source record: 68697

Dave wrote:
> ok, just for you i swapped all the cables around. and you are wrong, it is
> not indistinguishable from 75 ohms, it is easily picked out as a 50 ohm
> section.

What causes that?
--
73, Cecil http://www.qsl.net/w5dxp

2451. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 20:47:45 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <30e01$43516b37$97d558d8$11737@ALLTEL.NET>
Source record: 68698

I always see a few that delight in attacking MFJ. Find me another company
that produces products for a reasonable price for the Ham.

Do they get any props at all, hell no. Some idiot pisses and moans that the
MFJ $19.95 what ever is less accurate than their favorite $350.00 supplier.

Why would you not "trust" an MFJ to measure anything?

If you can't give a specific reason to avoid an MFJ product, then what is
gained by your supercilious remark.

"Dave" <noone@nowhere.com> wrote in message
news:UtSdnXLlM5PngMzeRVn-ig@crocker.com...
>
> "Cecil Moore" <mycall@arrl.net> wrote in message
> news:NM84f.16754$6e1.1309@newssvr14.news.prodigy.com...
> > Owen Duffy wrote:
> >> This has nothing to do with the stated myth: Measurements with a Bird
> >> 43 of the conditions on the Thruline section are invalid unless it has
> >> some minimum length of 50 ohm line on both sides of itself.
> >
> > Would you be willing to make the same statement about an MFJ wattmeter?
>
> now your are just trying to muddy the waters... i wouldn't trust an mfj to
> measure anything!
>
>

2452. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 20:49:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <GXd4f.3912$7h7.1277@newssvr21.news.prodigy.com>
Source record: 68699

Dave wrote:
> ... or you get one 1/e reduction for each
> distance equal to the spacing which in rg-58 or rg-8x that i used is
> something like 1mm or less.. so how far down do you want to be?

Is that 1/e reduction for power or voltage?

> in 4.5mm
> you are down to 1% which is well under the accuracy of these cheap meters,
> and much less than the length of even the connectors on the meters.

Kevin Rhodes said, "... the lowest order undesired mode should reduce
intensity by a factor of 1/e in about 2.03"..." for Rg-213. 2.03" is
a lot greater than the spacing in RG-213.
--
73, Cecil http://www.qsl.net/w5dxp

2453. Re: tvi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 20:59:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <GMednRbe8cHt8MzeRVn-uQ@comcast.com>
Source record: 68700

"Dave" <noone@nowhere.com> wrote in message
news:0ISdneFaB9TYtMzenZ2dnUVZ_sudnZ2d@crocker.com...
>i would guess that you lost a ground connection on a coax. check all the
>connectors and be sure the shields are all well connected.
>

Not just the radio. Check the TV F connectors. It is easy to lose a ground there. The kind that push on, instead of screwing on to the set are especially bad. Try pushing the coax into the F connector while the TVI is present. If you have 300 Ohm twin lead, see if one side came loose. You didn't add a preamp, right?

Tam/WB2TT

> "ml" <m@di.net> wrote in message
> news:m-634C88.11594715102005@news.verizon.net...
>>I was wondering if perhaps somone can help me figure out the best way to
>> track down why i suddenly seem to be giving myself some tvi
>>
>> i didn't make any changes, i had a tv in my shack i have more than one
>> rig so it's not a bad rig
>>
>> seems the tvi is comming from within the room (not from the roof)
>>
>> my grounds seem same as always but the set really is totally wiped out
>> even if i ut the rig to 1w the tv is totally overloaded sometimes
>> the tv even seems sorta turn off if i key
>>
>> my cables to the rig seem ok same as always i seem to be missing
>> something
>
>

2454. Re: What is so special about '12 dB' SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:02:21 UTC
From: chuck <nospam@nospam.net>
Message-ID: <x7e4f.14292$vw6.8716@newsread1.news.atl.earthlink.net>
Source record: 68701

Hello Fred,

If you have a calibrated RF signal generator that provides 1 kHz
modulation and an rms voltmeter that covers communication audio
frequencies (say to 3 kHz), then the only thing you need to make SINAD
measurements is a 1 kHz notch filter. You can find schematics for that
in the ARRL handbook and elsewhere.

Good luck!

Chuck
NT3G

Fred McKenzie wrote:
> In article <diq2l9062i@enews4.newsguy.com>, crb <anon@net.com> wrote:
>
>
>>Is the the input value in dBm on the test equipment the sensitivity of
>>the receiver at 12 dB SINAD.
>>The 'at 12 dB SINAD' still gets me.
>
>
> CRB-
>
> Years ago sensitivity might have been measured using a "20 dB quieting"
> method. You would inject an unmodulated carrier and increase its level
> until the noise output of the receiver decreased to one tenth of the
> no-signal value. This might work for tuning to improve that one
> receiver's sensitivity, but it isn't the greatest for comparing different
> receivers with different bandwidths.
>
> Isn't SINAD an acronym for "Signal In the presence of Noise And
> Distortion"? I don't fully understand how it works, but assume there is a
> 1 KHz filter feeding one channel that is compared to an un-filtered
> channel.
>
> What I want to know is how to build one. Does anyone know of any SINAD
> construction articles?
>
> 73, Fred, K4DII

2455. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:12:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Kge4f.3915$7h7.812@newssvr21.news.prodigy.com>
Source record: 68702

Owen Duffy wrote:
> Is it not time you put in some time on the experimental side to
> support / validate your conceptual contribution?

Maybe you can help. I have an MFJ-259B antenna analyzer and a
dual-trace 100 MHz o'scope. Let's say I have an unmarked 2 inch
piece of coax and I don't know the characteristic impedance.

Using the MFJ-259B and o'scope, how could I ascertain the Z0 of
that 2 inch piece of coax? This is similar to the problem of
determining the physical Z0 of a poorly designed SWR meter.
--
73, Cecil http://www.qsl.net/w5dxp

2456. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:15:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7qr2l15ibg31m1d3t15r2rbq1cgh6fdtvb@4ax.com>
Source record: 68703

On Sat, 15 Oct 2005 20:37:11 GMT, Cecil Moore <mycall@arrl.net> wrote:
>http://www.mfjenterprises.com/man/pdf/MFJ-816.pdf
>What do you think is the purpose of the 10pf variable cap
>if not to vary the voltage in the voltage divider?

You don't know, do you? :-)
It adjusts the frequency correction at the high end of the meter's frequency range. Too bad this version of the manual doesn't lay it out for Xeroxing - many of their other manuals do. This is a commonplace of the Bruene design.

>The question is: Between the "transmitter" terminal and
>the "antenna" terminal, what determines the physical
>characteristic impedance of the sampling circuit?

You don't know that one either, do you?

The turns ratio and the 82 Ohm load resistor IS the Z of sampling circuit; the capacitor provides the e phase reference and tracking across frequency. It is very lightly loading as a series load by design and as evidenced by Dave's measurements.

Odd that you couldn't have said this yourself - rather ordinary stuff.

2457. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:18:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5es2l1975liei6k1olqc1icc3rigdtcuo8@4ax.com>
Source record: 68705

On Sat, 15 Oct 2005 20:49:42 GMT, Cecil Moore <mycall@arrl.net> wrote:
>> in 4.5mm
>> you are down to 1% which is well under the accuracy of these cheap meters,
>> and much less than the length of even the connectors on the meters.
>Kevin Rhodes said, "... the lowest order undesired mode should reduce
>intensity by a factor of 1/e in about 2.03"..." for Rg-213. 2.03" is
>a lot greater than the spacing in RG-213.
so much for relying on an obscure poster quoted indirectly by
paraphrase to a new context. Such is third hand information.

2458. Re: can I / can't I ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:19:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dirroabcv1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68704

> Any reason I shouldn't use a choke balun out of my tuner to feed
ladderline
> up to a dipole?

==========

There's no reason whatsoever. In fact it is the obvious thing to do.

The choke allows you to connect an unbalanced tuner to any balanced feedline via the choke.

A balanced tuner is entirely unnecessary in almost all circumstances.

The choke is simply a pair of wires wound together around a ferrite toroid. Or it is a coaxial pair wound round a toroid (which for various reasons is slightly less efficient and is physically less convenient.) So the pair of parallel wires is the better form of construction.

The choke behaves as a short length of transmission line of the same length as the pair of wires wound on the choke. Which is very short when a ferrite toroid is used.

Because the length of line is an impedance transformer it transforms the input impedance of the transmission line to somewhat different values especially at the higher frequencies. At the lower frequencies it may just as well not be there.

Which means that the tuner L and C settings are different to those which occur when the choke is not there. But often, when the choke is in use, the tuner finds it easier to match the line and antenna to the transmitter. Which is the sole purpose of the tuner.

The number of turns wound on the choke must provide an inductance and a reactance of about 4 or 5 times the load resistance required by the transmitter, usually 50 ohms, at the lowest frequency of operation. This depends on the permeability of the ferrite core material.

At the higher frequencies it is best that the length of line wound on the torroid should not exceed 1/8th of a wavelength at the free-space velocity. This is usually not too difficult to manage.

To simplify, get a 2" outside diameter ferrite ring, of HF grade marerial, wind on 14 or 18 turns, and get on with it.

A choke balun is the most simple of radio components to construct, yet its behaviour is amongst the most complicated of components to analyse.

Reg, G4FGQ.

2459. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:20:16 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <a0q2l1hka60ha2l5ssnkcsulcbf4h408ut@4ax.com>
Source record: 68706

On Sat, 15 Oct 2005 19:02:58 -0000, "Dave" <noone@nowhere.com> wrote:

>
>"Cecil Moore" <mycall@arrl.net> wrote in message
>news:rxb4f.2442$BZ5.2186@newssvr13.news.prodigy.com...
>> Dave wrote:
>>> don't bother, its a figment of cecil's imagination and creative
>>> vocabulary.
>>
>> Actually, the question logically follows from the reflection model.
>> Under what boundary conditions does a piece of transmission line
>> force Vfor/Ifor = Vref/Iref = Z0 to a specified accuracy?
>
>then look up article 3.19 in 'fields and waves in communications
>electronics' which is where they derive the fringe effects for a step change
>in spacing between two plates. this is where they refer you for calculating
>the effects of evanescent modes from a more complex problem stating that the
>results are identical with the static case in 3.19... in the derivation of
>the complex case of a step change in a cable they show that a single lumped
>capacitance added at the step is an adequate representation of the
>discontinuity when calculating the evanescent modes below cutoff. in 3.19
>if you disregard the fields along the length of the step it ends up in an
>equation: Z=h/pi(exp(pi*W/V0)-1-pi*W/V0_j*pi) the important part is
>obvioulsy the decay factor in the exponential which goes as exp(-x/h) where
>h is the separation in the planes... or you get one 1/e reduction for each
>distance equal to the spacing which in rg-58 or rg-8x that i used is
>something like 1mm or less.. so how far down do you want to be? in 4.5mm
>you are down to 1% which is well under the accuracy of these cheap meters,
>and much less than the length of even the connectors on the meters.

Dave, I note the work above estimating the rate of decay of the effect
of the discontinuity, and we have seen another analysis of the decay
rate (mis)quoted.

Doesn't the impact of the discontinuity at a distance x depend on the
magnitude of the products of the discontinuity times the attenuation
at distance X.

These discussions do not seem to have attempted to estimate the
magnitude of the products of the discontinuity.

Think about all the places where we do not preserve nominal Zo, and
whether significant power is diverted to other than the dominant mode
and subsequently lost. Look inside a HF transceiver, it is full of
discontinuities between the PA collector and the coax socket. Design
practice for HF transceivers does not consider potential losses from

evanescent modes.

If there were significant dissapative losses from such
discontinuities, don't all the texts on stub tuner design need to be
rewritten.

Where is the experimental evidence that significant power is diverted
in practical circuits and transmission line discontinuities?

My experiment reported at the beginning of the thread could be varied
to include another Bird at the dummy load, and to compare the power
loss between Birds with the expected cable loss (in the dominant mode)
to indicate whether there was another dissapative loss mechanism at
work.

I won't waste the time on the experiment because I anticipate that
instrument errors and cable specification errors would swamp any
likely effect of the discontinuities. IMHO, a well designed experiment
would require more accurate measurement of the dominant mode loss of
the 75 ohm cable, and more precise and accurate power measurement
equipment.

To demonstrate that point, I have just performed a test at 10.1MHz
with the Bird 43 and the 5.27m of 9275 on the load side with o/c load.

The measured return loss was -0.36dB. (Always seems un-natural
specifying a loss as -dB). I estimate the return loss should have been
-0.25dB (using the calculator at http://www.vk1od.net/tl/tllce.php),
leaving an unaccounted for -0.11dB. The differences are smaller than
the tolerances / accuracy of the equipment.

Perhaps it does demonstrate that the loss caused by the discontinuity
is not significant in terms of the specified accuracy of the Bird 43.

Owen
--

2460. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:22:45 UTC
From: Dave <noone@nowhere.com>
Message-ID: <kOidnfKm5-6t7szeRVn-jQ@crocker.com>
Source record: 68707

"Cecil Moore" <mycall@arrl.net> wrote in message
news:GXd4f.3912$7h7.1277@newssvr21.news.prodigy.com...
> Dave wrote:
>> ... or you get one 1/e reduction for each distance equal to the spacing
>> which in rg-58 or rg-8x that i used is something like 1mm or less.. so
>> how far down do you want to be?
>
> Is that 1/e reduction for power or voltage?

the equation gives the potential and flux functions, so its the
voltage/current essentially. no body calculates power functions unless they
are doing something strange.

>
>> in 4.5mm you are down to 1% which is well under the accuracy of these
>> cheap meters, and much less than the length of even the connectors on the
>> meters.
>
> Kevin Rhodes said, "... the lowest order undesired mode should reduce
> intensity by a factor of 1/e in about 2.03"..." for Rg-213. 2.03" is
> a lot greater than the spacing in RG-213.
> --
who is kevin rhodes? what reference books is he cited in as calculating
that and using what method? and that seems like an awfully long distance
for a fringe effect from a change in diameter of the conductors... but that
is just a gut feeling based on my understanding of the field equations.

2461. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:28:14 UTC
From: Dave <noone@nowhere.com>
Message-ID: <HOednZ9Nwqfm6czeRVn-qQ@crocker.com>
Source record: 68708

"Cecil Moore" <mycall@arrl.net> wrote in message
news:TMd4f.3910$7h7.2837@newssvr21.news.prodigy.com...
> Dave wrote:
>> ok, just for you i swapped all the cables around. and you are wrong, it
>> is not indistinguishable from 75 ohms, it is easily picked out as a 50
>> ohm section.
>
> What causes that?
> --

obviously between the tx and ant terminals it looks like a 50 ohm
transmission line.

ok, you guys have fun now, the rain is over and i probably won't be around
to argue with cecil as much the next few days. i trust someone will keep an
eye on him and make sure he doesn't twist the problem around so it can only
be solved with s parameter analysis referencing that optics web site
formulas he likes so much.

2462. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:33:02 UTC
From: Dave <noone@nowhere.com>
Message-ID: <-rudnYa-RIIH6MzeRVn-uw@crocker.com>
Source record: 68709

"Owen Duffy" <owen@no.where> wrote in message
news:a0q2l1hka60ha2l5ssnkcsulcbf4h408ut@4ax.com...
> On Sat, 15 Oct 2005 19:02:58 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>
>>"Cecil Moore" <mycall@arrl.net> wrote in message
>>news:rxb4f.2442$BZ5.2186@newssvr13.news.prodigy.com...
>>> Dave wrote:
>>>> don't bother, its a figment of cecil's imagination and creative
>>>> vocabulary.
>>>
>>> Actually, the question logically follows from the reflection model.
>>> Under what boundary conditions does a piece of transmission line
>>> force Vfor/Ifor = Vref/Iref = Z0 to a specified accuracy?
>>
>>then look up article 3.19 in 'fields and waves in communications
>>electronics' which is where they derive the fringe effects for a step
>>change
>>in spacing between two plates. this is where they refer you for
>>calculating
>>the effects of evanescent modes from a more complex problem stating that
>>the
>>results are identical with the static case in 3.19... in the derivation of
>>the complex case of a step change in a cable they show that a single
>>lumped
>>capacitance added at the step is an adequate representation of the
>>discontinuity when calculating the evanescent modes below cutoff. in 3.19
>>if you disregard the fields along the length of the step it ends up in an
>>equation: Z=h/pi(exp(pi*W/V0)-1-pi*W/V0_j*pi) the important part is
>>obvioulsy the decay factor in the exponential which goes as exp(-x/h)
>>where
>>h is the separation in the planes... or you get one 1/e reduction for each
>>distance equal to the spacing which in rg-58 or rg-8x that i used is
>>something like 1mm or less.. so how far down do you want to be? in 4.5mm
>>you are down to 1% which is well under the accuracy of these cheap meters,
>>and much less than the length of even the connectors on the meters.
>
> Dave, I note the work above estimating the rate of decay of the effect
> of the discontinuity, and we have seen another analysis of the decay
> rate (mis)quoted.
>
> Doesn't the impact of the discontinuity at a distance x depend on the
> magnitude of the products of the discontinuity times the attenuation
> at distance X.

>
> These discussions do not seem to have attempted to estimate the
> magnitude of the products of the discontinuity.
>
> Think about all the places where we do not preserve nominal Zo, and
> whether significant power is diverted to other than the dominant mode
> and subsequently lost. Look inside a HF transceiver, it is full of
> discontinuities between the PA collector and the coax socket. Design
> practice for HF transceivers does not consider potential losses from
> evanescent modes.
>
> If there were significant dissapative losses from such
> discontinuities, don't all the texts on stub tuner design need to be
> rewritten.
>
> Where is the experimental evidence that significant power is diverted
> in practical circuits and transmission line discontinuities?
>
> My experiment reported at the beginning of the thread could be varied
> to include another Bird at the dummy load, and to compare the power
> loss between Birds with the expected cable loss (in the dominant mode)
> to indicate whether there was another dissapative loss mechanism at
> work.
>
> I won't waste the time on the experiment because I anticipate that
> instrument errors and cable specification errors would swamp any
> likely effect of the discontinuities. IMHO, a well designed experiment
> would require more accurate measurement of the dominant mode loss of
> the 75 ohm cable, and more precise and accurate power measurement
> equipment.
>
> To demonstrate that point, I have just performed a test at 10.1MHz
> with the Bird 43 and the 5.27m of 9275 on the load side with o/c load.
>
> The measured return loss was -0.36dB. (Always seems un-natural
> specifying a loss as -dB). I estimate the return loss should have been
> -0.25dB (using the calculator at http://www.vk1od.net/tl/tllce.php),
> leaving an unaccounted for -0.11dB. The differences are smaller than
> the tolerances / accuracy of the equipment.
>
> Perhaps it does demonstrate that the loss caused by the discontinuity
> is not significant in terms of the specified accuracy of the Bird 43.
>
> Owen
> --
yes, this is true also. the initial amplitude of the evanescent modes is
proportional to the size of the discontinuity. when going from 50 to 75
ohms that is a relatively small discontinuity to start with and the modes
decay exponentially from that starting point. there are probably bigger
losses due to interconnections between components and the connectors on the

case than are caused by the actual change in cable impedance.

2463. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 21:35:19 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <bvs2l1t6g071dcl77uim6r9k8h4bga7aa9@4ax.com>
Source record: 68710

On Sat, 15 Oct 2005 20:49:42 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Kevin Rhodes said, "... the lowest order undesired mode should reduce
>intensity by a factor of 1/e in about 2.03"..." for Rg-213. 2.03" is
>a lot greater than the spacing in RG-213.

Cecil,

Go back and read your own post:
GaR1f.9892$oO2.4025@newssvr27.news.prodigy.net

You quoted Kevin Rhodes:

>(1/45m)**2 = (1/.203")**2 + kz**2
>Clearly, kz must be imaginary to make this work. thus an
>evanescant, non-propagating wave:
>kz**2 = (1/45m)**2 - (1/.203")**2
>To the accuracy used to date, the first term on the right
>is negligible, so the decay rate, alpha, can be estimated:
>alpha**2 = - (kz)**2 = (1/2.03")**2

How does rearranging the terms here increase 0.203" to 2.03"?

In any event 0.203" is an overestimate of the spacing, 0.203" is
actually half the overall diameter of RG213.

I don't really understand this mathematics, do you understand the
thing you are citing?

Owen
--

2464. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:01:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4rt2l117kna6pevem31tq1kuhk0ibbttai@4ax.com>
Source record: 68711

On Sat, 15 Oct 2005 21:20:16 GMT, Owen Duffy <owen@no.where> wrote:

> Look inside a HF transceiver, it is full of
>discontinuities between the PA collector and the coax socket. Design
>practice for HF transceivers does not consider potential losses from
>evanescent modes.

Hi Owen,

Some of the minor points here would be, to use the term you use yourself later in your post, swamped. The swamping contributors are generally attended to in design, and those corrections draw in and encompass these smaller points.

A lot of this is handled by the low pass filtering following the final stage's Z transformer in a transistor set.

>If there were significant dissapative losses from such
>discontinuities, don't all the texts on stub tuner design need to be
>rewritten.

These would be called mismatch loss, which is not dissipative, but rather what power was not delivered, that could have been if not in the face of the discontinuity. Think of it as a loss of opportunity, not a loss down the drain. Consider that same low pass filter following the transformer. It withholds the power found in the harmonics, and yet few filters need as much cooling as do the finals transistors that are arcin' and sparkin' with those transients.

The low pass filter is a cheap alternative to linearizing the finals stage and thus reducing those spurs. This would run the finals at a lower gain however (to be put into what Bode calls the noise gain, or negative feedback), and you would need more dollar investment for the same power out.

>Where is the experimental evidence that significant power is diverted
>in practical circuits and transmission line discontinuities?

A practical example can be found in any RADAR system. You have ATR tubes that perform power steering in waveguides. The list goes on with lots of goodies (can anyone explain the Magic-T?) as RADAR is particularly theatrical in this arena.

Every connection to a waveguide uses the physics of discontinuity to suppress leakage. Examine the choke fittings, they are series shorted tuned cavities used to bridge joints that necessarily have some prospect of not maintaining entirely mating interfaces.

>Perhaps it does demonstrate that the loss caused by the discontinuity
>is not significant in terms of the specified accuracy of the Bird 43.

And then there is that distinct possibility. In such cases you design
the test to discard that perturbation by increasing the effect being
investigated. This is why I suggested a large mismatch would render
this chatter about 4W as being inconsequential.

73's
Richard Clark, KB7QHC

2465. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:24:26 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <m203l1t23249qgti32vupmo2ka18p0ce5b@4ax.com>
Source record: 68716

On Sat, 15 Oct 2005 15:01:45 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 15 Oct 2005 21:20:16 GMT, Owen Duffy <owen@no.where> wrote:
>

>>Where is the experimental evidence that significant power is diverted
>>in practical circuits and transmission line discontinuities?
>
>A practical example can be found in any RADAR system. You have ATR
>tubes that perform power steering in waveguides. The list goes on
>with lots of goodies (can anyone explain the Magic-T?) as RADAR is
>particularly theatrical in this arena.
>
>Every connection to a waveguide uses the physics of discontinuity to
>suppress leakage. Examine the choke fittings, they are series shorted
>tuned cavities used to bridge joints that necessarily have some
>prospect of not maintaining entirely mating interfaces.
>

Yes, I should have qualified the statement to scope it at HF. I am
aware of the risk of excitation of undesirable modes in waveguide and
the need for mode traps to deal with them where their propagation is
undesirable.

I am not questioning whether physical discontinuities give rise to
electrical changes that can be explained or modelled with by lumped
constants or excitation of other propagation modes, I am questioning
whether the effects are significant in practical applications below
microwave frequencies, and especially at HF.

Owen
--

2466. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:36:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <vvf4f.2086$D13.937@newssvr11.news.prodigy.com>
Source record: 68712

Richard Clark wrote:

> On Sat, 15 Oct 2005 20:37:11 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>http://www.mfjenterprises.com/man/pdf/MFJ-816.pdf
>>What do you think is the purpose of the 10pf variable cap
>>if not to vary the voltage in the voltage divider?
>
> You don't know, do you? :-)
> It adjusts the frequency correction at the high end of the meter's
> frequency range.

From page 27-8 ARRL Antenna Book 15th edition. "Capacitive voltage dividers, C1-C3 and C2-C4, are connected across the line to obtain equal-amplitude voltages in phase with the line voltage, the division ratio being adjusted so that these voltages match the voltage drops across R1 and R2 in amplitude."

In other words, it is the main Z0 calibration setting that sets the sampled voltage equal to the sampled current while driving a dummy load equal to Z0. Frequency response is a completely secondary consideration.

If the range of C1 and C2 are great enough, the wattmeter could be calibrated for 75 ohms rather than 50 ohms.

>>The question is: Between the "transmitter" terminal and
>>the "antenna" terminal, what determines the physical
>>characteristic impedance of the sampling circuit?
>
> It is very lightly loading as a series load by
> design and as evidenced by Dave's measurements.

Exactly how much effect does that light loading have on the primary voltage/current amplitude and phase? Enough to be detectable if the V/I ratio is not 50 ohms?
--
73, Cecil http://www.qsl.net/w5dxp

2467. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:37:18 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ywf4f.2087$D13.110@newssvr11.news.prodigy.com>
Source record: 68713

Richard Clark wrote:
> so much for relying on an obscure poster quoted indirectly by
> paraphrase to a new context. Such is third hand information.

Which is better? Third hand or under hand? :-)
--
73, Cecil http://www.qsl.net/w5dxp

2468. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:38:10 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <s013l1d45hejnn6tbad1euhh74ov18kf9b@4ax.com>
Source record: 68719

On Sat, 15 Oct 2005 23:01:02 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> How does rearranging the terms here increase 0.203" to 2.03"?
>
>Already caught that boo-boo. Correcting it brings Kevin's math
>in line with Dave's.

So you were aware of the apparent defect in the work you were citing
as recently as less than two hours ago, and it took someone else to
notify the defect here?

Owen
--

2469. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:41:03 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3Af4f.2089$D13.1036@newssvr11.news.prodigy.com>
Source record: 68714

Owen Duffy wrote:
> If there were significant dissapative losses from such
> discontinuities, don't all the texts on stub tuner design need to be
> rewritten.

We're not talking about losses, Owen. We are talking about the
changing relationships between V and I at an impedance discontinuity.
Why do you think they call them discontinuities?
--
73, Cecil http://www.qsl.net/w5dxp

2470. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:55:14 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <mNf4f.2090$D13.710@newssvr11.news.prodigy.com>
Source record: 68715

Dave wrote:
> who is kevin rhodes?

The guy from sci.physics.electromag whom I quoted previously in the "V/I forced to Z0" thread. It appears that he accidentally replaced the conductor spacing of 0.203" with 2.03" in his calculations. If that is corrected, his values tend to agree with yours given the different conductor spacing between RG8X and RG213.

So can we say, the lowest order undesired mode should reduce intensity by a factor of 1/e in about one conductor spacing, 1/e^2 in two conductor spacings, etc.?
--
73, Cecil http://www.qsl.net/w5dxp

2471. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 22:57:40 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <EPf4f.2091$D13.130@newssvr11.news.prodigy.com>
Source record: 68717

Dave wrote:
> obviously between the tx and ant terminals it looks like a 50 ohm
> transmission line.

So I repeat, what causes that characteristic? Is there
some coax inside the MFJ box?
--
73, Cecil http://www.qsl.net/w5dxp

2472. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 23:01:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <OSf4f.2092$D13.847@newssvr11.news.prodigy.com>
Source record: 68718

Owen Duffy wrote:
> How does rearranging the terms here increase 0.203" to 2.03"?

Already caught that boo-boo. Correcting it brings Kevin's math
in line with Dave's.
--
73, Cecil http://www.qsl.net/w5dxp

2473. Re: tvi

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 23:13:41 UTC
From: ml <m@di.net>
Message-ID: <m-28157C.19133415102005@news.verizon.net>
Source record: 68720

thanks for all the help guys

while i made no changes in the shack i never thought of testing the tv coax ground

thou i hand't meesed w/it could be it broke or the set it self is screwy

i don't disturb other tv's which are very close to the one in my room and all fed off same main coax

so for sure i've narrowed it down to my radio room

off i go testing that tv coax ground

appreciate the helps all!!
> >
> >

2474. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 23:25:10 UTC
From: Dave <noone@nowhere.com>
Message-ID: <v9mdnWkTNJ1_EszenZ2dnUVZ_sqdnZ2d@crocker.com>
Source record: 68721

"Owen Duffy" <owen@no.where> wrote in message
news:s013l1d45hejnn6tbad1euhh74ov18kf9b@4ax.com...
> On Sat, 15 Oct 2005 23:01:02 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>Owen Duffy wrote:
>>> How does rearranging the terms here increase 0.203" to 2.03"?
>>
>>Already caught that boo-boo. Correcting it brings Kevin's math
>>in line with Dave's.
>
> So you were aware of the apparent defect in the work you were citing
> as recently as less than two hours ago, and it took someone else to
> notify the defect here?
>
> Owen
> --

ugh! all of this was over a slipped decimal point??? so we are down to .2"
transition, which pretty much agrees with the one i came up with, and which
basically means that by the time you are out of the connector shell you are
back at Z0. and since the meter takes its own 50 ohm 'environment' with it
for sampling it is reading every thing exactly as it should... and exactly
as has been measured... and there is no requirement for some particular
length of 50 ohm coax on either side of a meter... what a waste of a
perfectly good argument, you better apologize big time for this one cecil!

2475. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 23:45:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nr33l1t1q3op441rph9i899gskpsksh364@4ax.com>
Source record: 68722

On Sat, 15 Oct 2005 22:36:11 GMT, Cecil Moore <mycall@arrl.net> wrote:

>these voltages match the voltage drops across R1 and R2
>in amplitude.

There is NO R1 and/or R2

This is familiar bait and switch methods so common to your trolling.
Changing the schematics to suit the argument can make any answer come
alive.

Like I said, if you were already familiar with this, you would have
said so and skipped all this stageshowing.

>In other words, it is the main Z0 calibration setting

An interpretation spanning as many documents as it takes to assemble
all the words xeroxed to this posting.

>If the range of C1 and C2 are great enough, the wattmeter
>could be calibrated for 75 ohms rather than 50 ohms.

Notably, there are no C1 and/or C2. Even more, if there were, any
competent tech in this group would be aware that it also would take a
similar shift in value of your R1 and/or R2. In fact, this
overstatement by calling out BOTH Cs needing change begs the chuckle
reflex being stifled.

>>>The question is: Between the "transmitter" terminal and
>>>the "antenna" terminal, what determines the physical
>>>characteristic impedance of the sampling circuit?
>>
>> It is very lightly loading as a series load by
>> design and as evidenced by Dave's measurements.
>
>Exactly how much effect does that light loading have on
>the primary voltage/current amplitude and phase? Enough
>to be detectable if the V/I ratio is not 50 ohms?

[clue: this is in the portion of my original post that you omitted.]

I would normally ask my students "What do you think?" but there is a
danger of that here, with so little obtained in return for so much
said.

Rather, I will offer "Think about it. How much power does it take to
swing a 1mA meter even full scale when there is a 500KOhm calibration
resistor (imagine that, do we assign THAT as the Z?) limiting it."

Something about Iï¿½R comes to mind for max power (300W) which works out to half a watt out of 300 supplied. A simple, back-of-the-napkin computation suggests less than 1%. A similar study of the actual load of 82 Ohms needs only be cast back through the Nï¿½ turns ratio. Seeing that it, too, is probably a quarter Watt resistor that we are still talking about less than 1% consumption.

So, anyway you slice and dice it without actually counting the turns ratio, the tech at the bench would easily offer the meter injects only half an ohm or less series resistance into the line.

2476. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 23:54:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9l53l15830uurd71p1jk2nq8m8dk5q3lvp@4ax.com>
Source record: 68723

On Sat, 15 Oct 2005 22:37:18 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Which is better? Third hand or under hand? :-)
If you can't get it across the plate, neither.

2477. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-15 23:56:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1n53l1lube4q2f9nfnjqbvh3cm9skj9i1i@4ax.com>
Source record: 68724

On Sat, 15 Oct 2005 22:55:14 GMT, Cecil Moore <mycall@arrl.net> wrote:
>The guy from sci.physics.electromag whom I quoted previously
>in the "V/I forced to Z0" thread. It appears that he
>accidentally replaced the conductor spacing of 0.203" with
>2.03" in his calculations.
Nice thing about third hand quotes, you can blame them for your
transcription errors and they can't defend themselves.

2478. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 02:56:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4jj4f.1617$dO2.191@newssvr29.news.prodigy.net>
Source record: 68725

Owen Duffy wrote:
> So you were aware of the apparent defect in the work you were citing
> as recently as less than two hours ago, and it took someone else to
> notify the defect here?

You should have been able to figure it out from the posting times.
I reported the problem at 5:55pm, after you had reported it but
before I had read your posting which reported it. You've heard of
two ships passing in the night? Ain't usenet great?
--
73, Cecil http://www.qsl.net/w5dxp

2479. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 03:55:38 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ClidnWD3VOKnUszeRVn-oQ@adelphia.com>
Source record: 68629
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

Ari Silversteinn wrote:
> On Tue, 04 Oct 2005 19:40:18 -0400, Mike Coslo wrote:
>
>
>> The Republicans are going to take care of all those problems! Darned
>>Democrats anyhow!
>>
>> - Mike KB3EIA -
>

I won't deny it!

Now, if you want my honest assessment, I find the whole thing fraught with ethical questions.

What if someone isn't listening to the radio when the message is broadcast? What about the people who don't live near railroad tracks?

If this thing is to *actually* work, it would have to be space based. Work with a database of the frequencies in use in the affected areas. broadcast on them as the need arises. FM will be easy. AM will be some more work. Of course you'll still have to deal with the people who aren't listening at the moment!

Of course if it just a research project to burn up some money, then *that* is a different subject altogether!

- Mike KB3EIA -

2480. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 04:14:17 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <Tqk4f.4414$v_5.2404@dukeread07>
Source record: 68630

k wrote:

> Well, why don't you just remove windows from your computer? What the
> hell, use another OS or write one that suits you and doesn't have any
> 'holes'...har..
>
you haven't taken a look at the headers, have you?
that is not a windows newsreader I am using.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

2481. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 04:16:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Yuk4f.2134$D13.1786@newssvr11.news.prodigy.com>
Source record: 68626

Dave wrote:
> ugh! all of this was over a slipped decimal point??? so we are down to .2"
> transition, which pretty much agrees with the one i came up with, and which
> basically means that by the time you are out of the connector shell you are
> back at Z0. and since the meter takes its own 50 ohm 'environment' with it
> for sampling it is reading every thing exactly as it should... and exactly
> as has been measured... and there is no requirement for some particular
> length of 50 ohm coax on either side of a meter... what a waste of a
> perfectly good argument, you better apologize big time for this one cecil!

I do apologize for the slip of the decimal point and for not finding it
before today but I think you guys completely missed the context of the
original argument and instead went off on several interesting tangents.

Now back to the original context: As Reg pointed out, you can't have an
SWR on a feedline that doesn't exist so how much 50 ohm feedline must
exist *external to the SWR meter* to be able to report a valid 50 ohm SWR
reading *on that coax*? Turns out to be around an inch, more or less, and
that is a good thing to know. Thanks for answering the question even if
in a time consuming way. If you had simply said that 0.2" of 50 ohm
coax is required to establish a 50 ohm environment *external to the SWR
meter*, we could have started arguing from that point and it would have
saved a lot of time and effort.
--
73, Cecil http://www.qsl.net/w5dxp

2482. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 04:20:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Rxk4f.2135$D13.674@newssvr11.news.prodigy.com>
Source record: 68627

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>these voltages match the voltage drops across R1 and R2
>>in amplitude.
>
> There is NO R1 and/or R2

I gave the reference, Richard, and am looking at it right now.
Page 27-9 of the 15th edition of the ARRL Antenna Book. R1 and
R2 are 10 ohms each.
--
73, Cecil http://www.qsl.net/w5dxp

2483. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 04:20:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Kyk4f.2136$D13.1359@newssvr11.news.prodigy.com>
Source record: 68628

Richard Clark wrote:
> Nice thing about third hand quotes, you can blame them for your
> transcription errors and they can't defend themselves.

The evidence is always on Google.
--
73, Cecil http://www.qsl.net/w5dxp

2484. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 04:34:34 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <VJk4f.4416$v_5.398@dukeread07>
Source record: 68631

Richard Clark wrote:

> On Sat, 15 Oct 2005 01:26:38 GMT, "k" <spam@uce.gov> wrote:
>
>>Well, why don't you just remove windows from your computer?
>
> A visit to:
> http://grc.com/default.htm
> will resolve ALL issues of security that have originated from the
> clown act of Windows sicurity development.

not sufficient.

windows has so many exploits that it is not possible to adequately secure
it. :(

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

2485. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 05:11:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m5o3l11gd805h5gkddsuh1l71r7a3nf0u3@4ax.com>
Source record: 68632

On Sun, 16 Oct 2005 04:20:58 GMT, Cecil Moore <mycall@arrl.net> wrote:
>> Nice thing about third hand quotes, you can blame them for your
>> transcription errors and they can't defend themselves.
>The evidence is always on Google.
Three degrees of separation between a poor third hand quote and its
validation.

2486. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 05:18:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r9o3l1hge97ml1bua1lq1iil8mfjbqdlve@4ax.com>
Source record: 68633

On Sun, 16 Oct 2005 04:16:56 GMT, Cecil Moore <mycall@arrl.net> wrote:
> but I think you guys completely missed the context
What is the validity of context when it is buried in error? This is
this is the pollution of argument that discards proper method and
accuracy to prove absolutist principles.

The point you miss is that when the errors are corrected, they
invalidate your premise - context is quite obviously out the window at
that point.

2487. Re: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 05:35:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5vo3l15df1ohd4n3cq32sp2gpckr2r2mhr@4ax.com>
Source record: 68634

On Sun, 16 Oct 2005 04:20:01 GMT, Cecil Moore <mycall@arrl.net> wrote:
>I gave the reference, Richard, and am looking at it right now.
On Sat, 15 Oct 2005 20:37:11 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Here's a schematic of an MFJ SWR meter at the bottom:
>http://www.mfjenterprises.com/man/pdf/MFJ-816.pdf
Like I said, your common technique of bait and switch to please your argument. This technique is so shop-worn that you couldn't even respond in the same thread - what a wheeze. Please pretend you don't understand... again. This is probably another reason why the editors dump your submissions.

2488. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 05:53:28 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <2gp3l11c0si7aepeh2v3cblp6t2cvfhalr@4ax.com>
Source record: 68635

On Sat, 15 Oct 2005 03:37:16 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>
>> Cecil Moore <mycall@arrl.net> wrote:
>>>and not to be a myth at all. There's 104.17 watts of forward power
>>>through the Bird and 4.17 watts of reflected power back through the
>>>Bird. Why does the Bird ignore those actual power values?
>>
>> I did not report or even measure such a thing.
>
>Since I realized the Bird forms a Z0-match at its output that
>statement should be ammended to say: There 104.17 watts of forward

Why the belated revelation of the Bird 43 coupler Zo? In a post on 9 Oct on the earlier thread I stated:

"My suggestion is that the sampler inside a Bird 43 coupler section is sufficiently far inside the 50 ohm coupler line to provide measurements within the instrument's stated accuracy of what is happening within the 50 ohm coupler, irrespective of whether, for instance, a 75 ohm line is attached to the coupler on the load side."

You must have read it, you responded to it with your message e2W1f.5490$Zs3.3003@newssvr25.news.prodigy.net .

Perhaps the honest way to deal with the situation is to acknowledge that your statement quoted at the top of this post was just not true, rather than to edit the words to shift the context to somewhere else where it might be true.

It would be gracious of you to return to the myth, read it carefully and think about it, and to respond restricting yourself to the myth as stated, without qualification or obfuscation, is it a myth YES or NO.

To save you the hassle of finding it, here is:

The myth: Measurements with a Bird 43 of the conditions on the Thruline section are invalid unless it has some minimum length of 50 ohm line on both sides of itself.

Myth or not, YES or NO?

Owen
--

2489. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 07:51:39 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <4352068B.3050201@killspam.internode.on.net>
Source record: 68636

> Is that BTW?
Yes - dear oh dear - pot calling kettle black :)

> It appears to have a flat section of line that is parallel to the coax
> centre conductor and is presumably capacitively and inductively
> coupled, and it uses some form of frequency compensation to give it
> broadband response. You rotate the sampler element for measurement of
> the opposite direction.

Have played with that type of Bird. Worked well as I recall. Have also
made a Bruene type - fairly constant readings over wide frequency range.
Yes 40m is a bit ordinary at the mo for short distance.
Cheers,
Alan

2490. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 13:32:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ditkoq$jt4$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68637

OK, Cec, I have a better idea of what you mean by '50-ohm
environment'.

You refer to: -

Vfor/Ifor = Vref/Iref = Z0

with which I agree.

But Zo is a pure resistance and the relationship can be true only when
there is no phase shift between Vfor/Ifor and Vref/Iref.

Which means, in the ideal meter, the voltage tap-off and current
tap-off points must be identically located within the instrument.

I would now like to go off in a slightly different tack to these
extensive threads.

There is a length of conductor between the input and output terminals
of the meter. It cannot be avoided. For obvious reasons related to the
high-frequency response and accuracy, the Zo environment along this
conductor has to be maintained as good as is reasonably possible. (
With the common or garden SWR meter nobody bothers very much. It
hardly matters anyway.)

The location of the voltage and current tapping points along the
conductor doesn't matter two hoots. What matters is the distance
beween them because of the phase difference. Small errors due to
misplacement are unavoidable and have to be lived with.

Getting to the point of this message: - The length of transmission
line inside the meter and the unknowns regarding 'Zo environment' play
no part either in operation or analysis of the meter.

The story that the length of line inside the meter is used to detect
and measure standing wave ratios is just another old-wives' tale which
confuses CB-ers, novices and professional engineers alike.

(By the way, if there is a short transmission line of any sort inside
the instrument, its length can be used to set the measuring
sensitivity. The longer the line the greater the sensitivity. But the
longer the line the greater the measuring errors and the worse the
frequency response.)

Reg, G4FGQ.

==========
"Cecil Moore" wrote

>
> The transmission line reflection model tells us that the Z0
> of a transmission lines forces the following relationship.
>
> Vfor/Ifor = Vref/Iref = Z0
>
> A "50 ohm environment" used in the context of the previous
> discussion would be one in which the above relationship
> is forced on the system at certain points in the system.
>
> 600 ohm transmission line going from a tuner/balun to an
> antenna establishes a 600 ohm environment for the signals
> on the transmission line. An SWR meter calibrated for 600
> ohms will indicate the actual SWR.
>
> About a year ago, based on a discussion that you and I were
> having, I asked the sci.physics.electromag newsgroup how
> long a piece of RG-213 coax has to be to establish the
> above relationship. The answer was that the non-TEM product
> terms decrease at about 1/e every two inches for RG-213.
>
> The RG-400 coax leads going to and from my SWR meter are
> two feet each. So I asserted to you that my SWR meter
> was reading the actual SWR in the middle of that run of
> RG-400. I think you disagreed with my assertion but I
> cannot remember for sure.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2491. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 14:04:07 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <r5t4f.36946$ir4.21208@edtnps90>
Source record: 68638

"chuck" <nospam@nospam.net> wrote in message
news:Y3R3f.14801$q1.8324@newsread3.news.atl.earthlink.net...
> Good info, Owen. I think the EIA test procedures really have FM or AM in
> mind, rather than SSB or, what is exactly the same for SINAD purposes, CW.
> The 60% figure just doesn't apply to SSB or CW. You would simply use an
> unmodulated signal generator with the frequency offset to produce a 1 kHz
> tone in the receiver's audio output, preferrably centered in the
> receiver's passband. Then a measure of rms af voltage at the receiver's
> output with and without the 1 kHz filter would be made.
>
> We don't hear much about SINAD testing procedures for SSB and CW. Even the
> ARRL's test procedure manual glosses over the procedure for other than FM.

The old Canadian Department of Communications Document RSS 125 Issue 1,
Released August 1st, 1976, precisely describes the method of SINAD
measurements for SSB equipment. In the past 25 years or so, HP's distortion
analyzers (such as the HP8903B) were used for this measurement. In the late
60s and early 70s I have seen Heathkit distortion analyzers used for SINAD
measurements. The latest versions of RSS125 seem to be more in line with
FCC standards, where receiver specifications are not required for
certification purposes (See
http://www.agiletestgroup.com/ICCertifications.html).

73,

Frank

2492. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 14:43:18 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <gno4l1t16e549vlc18864m4i5pevp2f00v@4ax.com>
Source record: 68639

On Sat, 15 Oct 2005 22:57:40 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Dave wrote:
>> obviously between the tx and ant terminals it looks like a 50 ohm
>> transmission line.
>
>So I repeat, what causes that characteristic? Is there
>some coax inside the MFJ box?

I've been reading this thread while biting my tongue concerning the Zo of the SWR measuring device. IMO the basis for the Zo of the device is being overlooked, although Cecil is coming the closest to describing it.

We are discussing the Bruene version of the device in which the inductance derives a sample of the current and C1 derives a sample of the voltage. When C1 is adjusted to obtain the correct voltage for the voltage-current ratio to equal Zo at that point, such as 50 ohms, the device provides the correct readings when the line impedance on the load side is Zo. The line impedance Zo on the input side is irrelevant.

If C1 is adjusted to obtain the correct voltage for the voltage-current ratio to equal Zo of 75 ohms it will provide the correct reading when the line impedance Zo on the load side is 75 ohms.

The line impedance of either the input or load transmission line is irrelevant to the basis for the Zo of the device, therefore a length of line is unnecessary to establish a Zo environment, the current sample and voltage sample establish it..

One can terminate the device with a lumped impedance and get the same answer as with a transmssion line whose input impedance is the same as the lumped impedance.

Walt, W2DU

2493. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 14:44:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <YGt4f.1286$q%.413@newssvr12.news.prodigy.com>
Source record: 68640

Owen Duffy wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>Since I realized the Bird forms a Z0-match at its output ...
>
> Perhaps the honest way to deal with the situation is to acknowledge
> that your statement quoted at the top of this post was just not true,
> rather than to edit the words to shift the context to somewhere else
> where it might be true.

I already admitted that, Owen, when I said the Bird developes
a Z0-match at its terminals (above). If you will tell me how
many times I have to admit I was wrong, I will prepare the
appropriate posting.

> The myth: Measurements with a Bird 43 of the conditions on the
> Thruline section are invalid unless it has some minimum length of 50
> ohm line on both sides of itself.
>
> Myth or not, YES or NO?

Myth YES. I don't know in how many ways I have to say that.
Would me writing an admission in my own blood help calm you down?
--
73, Cecil http://www.qsl.net/w5dxp

2494. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 14:58:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <MUt4f.1287$q%.930@newssvr12.news.prodigy.com>
Source record: 68641

Walter Maxwell wrote:
> The line impedance of either the input or load transmission line is irrelevant
> to the basis for the Zo of the device, therefore a length of line is unnecessary
> to establish a Zo environment, the current sample and voltage sample establish
> it..

Walt, there's one thing I don't understand about what Dave reported.
As I understand it, these were the test setups.

TDR---50 ohm coax---MFJ---50 ohm coax---50 ohm load

The TDR doesn't see the MFJ wattmeter.

TDR---75 ohm coax---MFJ---75 ohm coax---75 ohm load

The TDR sees the MFJ wattmeter.

If the MFJ in the second setup were recalibrated for 75 ohms,
would the TDR not see it?

****

The threads for the past few days have all diverged from the
original question which was:

How long must the 50 ohm coax connected to the SWR meter be
for the SWR meter to report a valid SWR on that coax? The
answer obviously cannot be zero length.
--
73, Cecil http://www.qsl.net/w5dxp

2495. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 15:01:40 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <0mq4l19d87kf40fiv2ci5ifhj2v423fqq5@4ax.com>
Source record: 68642

On 15 Oct 2005 01:52:04 -0700, sofasurfer@blclinks.net wrote:

>Fedthecat wrote:
>snip
>4. The best I get is 760 AM, very fuzzy, barely understandable. 950 AM
>is worse. Those are the only two stations coming in at all. They do not
>fade in or out.

Sounds like you're in the Detroit area with 760 as WJR and 950 as WWJ. Am I close, or what?

Walt, W2DU

2496. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 15:10:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <U3u4f.1290$q%.206@newssvr12.news.prodigy.com>
Source record: 68643

Reg Edwards wrote:
> Which means, in the ideal meter, the voltage tap-off and current
> tap-off points must be identically located within the instrument.

In my MFJ, the toroid and calibration cap are about 1/2" apart.

> The story that the length of line inside the meter is used to detect
> and measure standing wave ratios is just another old-wives' tale which
> confuses CB-ers, novices and professional engineers alike.

And if you will remember, the original question didn't involve the
SWR meter at all. The question was: Are my 2-foot sections of RG-400
connected to my SWR meter long enough to ensure that the SWR meter
reading is valid for the coax? Remember that argument?

The threads for the past few days have all diverged from that
original question which was:

How long must the 50 ohm coax connected to the SWR meter be
for the SWR meter to report a valid SWR *on that coax*? The
answer obviously cannot be zero length.
--
73, Cecil http://www.qsl.net/w5dxp

2497. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 15:33:33 UTC
From: "Dr.Ace" <NoSpam@BedfordSucks.com>
Message-ID: <4ca1d$435272b9$4e0b7ac$12582@DIALUPUSA.NET>
Source record: 68644
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

I've got an idea.
How about installing flashing lights at rail road crossing, and maybe some bells.
Ace - WH2T

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message news:CIidnWD3VOKnUszeRVn-oQ@adelphia.com...
> Ari Silversteinn wrote:
>> On Tue, 04 Oct 2005 19:40:18 -0400, Mike Coslo wrote:
>>
>>
>>> The Republicans are going to take care of all those problems! Darned
>>> Democrats anyhow!
>>>
>>> - Mike KB3EIA -
>>
>
> I won't deny it!
>
> Now, if you want my honest assessment, I find the whole thing fraught with
> ethical questions.
>
> What if someone isn't listening to the radio when the message is
> broadcast? What about the people who don't live near railroad tracks?
>
> If this thing is to *actually* work, it would have to be space based. Work
> with a database of the frequencies in use in the affected areas. broadcast
> on them as the need arises. FM will be easy. AM will be some more work. Of
> course you'll still have to deal with the people who aren't listening at
> the moment!
>
> Of course if it just a research project to burn up some money, then *that*
> is a different subject altogether!
>
> - Mike KB3EIA -

2498. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 15:51:26 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Guydnb4TXqKV6s_enZ2dnUVZ_sidnZ2d@crocker.com>
Source record: 68645

"Cecil Moore" <mycall@arrl.net> wrote in message
news:U3u4f.1290$q%.206@newssvr12.news.prodigy.com...
> Reg Edwards wrote:
>> Which means, in the ideal meter, the voltage tap-off and current
>> tap-off points must be identically located within the instrument.
>
> In my MFJ, the toroid and calibration cap are about 1/2" apart.
>
>> The story that the length of line inside the meter is used to detect
>> and measure standing wave ratios is just another old-wives' tale which
>> confuses CB-ers, novices and professional engineers alike.
>
> And if you will remember, the original question didn't involve the
> SWR meter at all. The question was: Are my 2-foot sections of RG-400
> connected to my SWR meter long enough to ensure that the SWR meter
> reading is valid for the coax? Remember that argument?

and the answer is <.2"

2499. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 16:00:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <UOu4f.4245$Zv5.3697@newssvr25.news.prodigy.net>
Source record: 68646

Dave wrote:
> "Cecil Moore" <mycall@arrl.net> wrote:
>>And if you will remember, the original question didn't involve the
>>SWR meter at all. The question was: Are my 2-foot sections of RG-400
>>connected to my SWR meter long enough to ensure that the SWR meter
>>reading is valid for the coax? Remember that argument?
>
> and the answer is <.2"

Not for 6" diameter hard line. :-)
--
73, Cecil http://www.qsl.net/w5dxp

2500. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 16:30:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l005l1hh17h1c2kgns53h3qiq3timvii12@4ax.com>
Source record: 68647

On Sun, 16 Oct 2005 14:44:09 GMT, Cecil Moore <mycall@arrl.net> wrote:
> > Myth or not, YES or NO?
>Myth YES.

Third-hand knowledge, Junk or Treasure?

2501. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 16:33:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i405l1p350v2dute5i64464lrh7nipun3i@4ax.com>
Source record: 68648

On Sun, 16 Oct 2005 11:01:40 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>Sounds like you're in the Detroit area with 760 as WJR and 950 as WWJ. Am I
>close, or what?

Good job, Walt. Flint.

73's
Richard Clark, KB7QHC

2502. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 16:39:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g905l1lggo09jtitifit3acn1sst1mv674@4ax.com>
Source record: 68649

On Sun, 16 Oct 2005 14:58:52 GMT, Cecil Moore <mycall@arrl.net> wrote:
>How long must the 50 ohm coax connected to the SWR meter be
>for the SWR meter to report a valid SWR on that coax? The
>answer obviously cannot be zero length.
Already back peddling I see.

2503. rf-systems WFL antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 16:57:43 UTC
From: johan aeq <pe1aeq@amsat.og>
Message-ID: <90f46$43528818$52ad139c$15540@news.versatel.nl>
Source record: 68650

Hello,
can you explain this antenna mentioned on this site?
http://www.universal-radio.com/catalog/hamwire/2039.html
A almost flat swr response with such a small antenna must be a folded T2FD antenna.
Is there someone who has tested this antenna?
Greetings Johan PE1AEQ

2504. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 17:32:56 UTC
From: Dave <noone@nowhere.com>
Message-ID: <x8udnQK8lclPE8_enZ2dnUVZ_sqdnZ2d@crocker.com>
Source record: 68651

"Cecil Moore" <mycall@arrl.net> wrote in message
news:UOu4f.4245$Zv5.3697@newssvr25.news.prodigy.net...
> Dave wrote:
>> "Cecil Moore" <mycall@arrl.net> wrote:
>>>And if you will remember, the original question didn't involve the
>>>SWR meter at all. The question was: Are my 2-foot sections of RG-400
>>>connected to my SWR meter long enough to ensure that the SWR meter
>>>reading is valid for the coax? Remember that argument?
>>
>> and the answer is <.2"
>
> Not for 6" diameter hard line. :-)

yeah, in your dreams your hardline as 6" in diameter! its probably not even
6" long!

by the time you put enough adapters on it to get it down to your so-239 or n
connector on your cheap swr meter it will be.

2505. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 17:43:40 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <gjw4f.2908$tV6.1082@newssvr27.news.prodigy.net>
Source record: 68652

Richard Clark wrote:
> Cecil Moore <mycall@arrl.net> wrote:
>>Myth YES.
>
> Third-hand knowledge, Junk or Treasure?

Actually, it doesn't rise to the definition of a myth.
It wasn't a popular belief. :-)
--
73, Cecil http://www.qsl.net/w5dxp

2506. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 17:45:16 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <a235l197lr495rs56h976s01plsg20j68e@4ax.com>
Source record: 68653

On Sun, 16 Oct 2005 14:58:52 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Walter Maxwell wrote:
>> The line impedance of either the input or load transmission line is irrelevant
>> to the basis for the Zo of the device, therefore a length of line is unnecessary
>> to establish a Zo environment, the current sample and voltage sample establish
>> it..
>
>Walt, there's one thing I don't understand about what Dave reported.
>As I understand it, these were the test setups.
>
>TDR---50 ohm coax---MFJ---50 ohm coax---50 ohm load
>
>The TDR doesn't see the MFJ wattmeter.

The TDR doesn't see the wattmeter because there is no discontinuity.

>TDR---75 ohm coax---MFJ---75 ohm coax---75 ohm load
>
>The TDR sees the MFJ wattmeter.

It seems to me the amount of the discontinuity the wattmeter calibrated to 50
ohms the TDR sees would be determined by the tightness of coupling of the
sampling inductance and capacitance to the main line.

>If the MFJ in the second setup were recalibrated for 75 ohms,
>would the TDR not see it?

I believe the TDR would not see it.

>**
>
>The threads for the past few days have all diverged from the
>original question which was:
>
>How long must the 50 ohm coax connected to the SWR meter be
>for the SWR meter to report a valid SWR on that coax? The
>answer obviously cannot be zero length.

Cecil, as I explained earlier, if we're considering the Bruene type SWR
indicator, the setting of the sampling cap in relation to the inductive sampling
determines the measurement reference, not the length or Zo of the coax. So I
repeat, with this SWR indicator zero coax length is sufficient. It will produce
the same answer with a lumped impedance as the load as it will with the same
impedance appearing as the input impedance of a coax.

Walt, W2DU

2507. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 17:49:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Yow4f.2912$tV6.2594@newssvr27.news.prodigy.net>
Source record: 68654

Owen Duffy wrote:
> The myth: Measurements with a Bird 43 of the conditions on the
> Thruline section are invalid unless it has some minimum length of 50
> ohm line on both sides of itself.
>
> Myth or not, YES or NO?

Actually, upon closer examination, the definition of "myth"
proves the above is NOT a myth. It is not a traditional story.
It is not a parable allegory. It is not a popular belief.

So, no Owen, it is not a myth.
--
73, Cecil http://www.qsl.net/w5dxp

2508. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 17:53:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <un35l1tkl7u9do4t7h5d8hhlpkff50e5tr@4ax.com>
Source record: 68655

On Sun, 16 Oct 2005 10:43:18 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>We are discussing the Bruene version of the device in which the inductance
>derives a sample of the current and C1 derives a sample of the voltage. When C1
>is adjusted to obtain the correct voltage for the voltage-current ratio to equal
>Zo at that point, such as 50 ohms, the device provides the correct readings when
>the line impedance on the load side is Zo. The line impedance Zo on the input
>side is irrelevant.

Hi Walt,

You might force what appears to be SWR meter action, but what you
describe above is not sufficient to offer the original accuracy; and
at that point why bother putting a screwdriver in and twisting things?
To accomplish the purpose being discussed takes TWO changes (of the
THREE variables of design) as I have already discussed.

Except under the most fortuitous of circumstances, there is nothing
inside the meter that even closely approaches Z0 - or has to.

As an aside to your comments and directed to the novitiates, any
number of Bruene variants can be found where those variants offer less
than optimal performance. However, quality equipment offers that the
line transiting between input and output connectors and thru the
sensing core IS Z0. This consideration takes so little effort, that
those designs that do not are probably suffering other short-cuts away
from intelligence. This opprobrium goes equally for arguments that
presume there is no line either.

73's
Richard Clark, KB7QHC

2509. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:00:12 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <ag45l1p1bi2b7r088r0m7715jfhn54esdo@4ax.com>
Source record: 68656

On Sun, 16 Oct 2005 09:33:00 -0700, Richard Clark <kb7qhc@comcast.net> wrote:

>On Sun, 16 Oct 2005 11:01:40 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>Sounds like you're in the Detroit area with 760 as WJR and 950 as WWJ. Am I
>>close, or what?
>
>Good job, Walt. Flint.
>
>73's
>Richard Clark, KB7QHC

Richard, I grew up listenting to those stations. WJR was originally on 750, but went up one slot after the NARBA agreement in the early 1940's. Incidentally, WJR was originally WCX, transmitter at Pontiac, which I listened to beginning in 1925, but changed to WJR in 1929 when it was purhased by the Jewett Radio Corp.

I grew up in Mt. Pleasant, 115 mi NW airline from Detroit. Even with 500 W WBCM on 1440 40 miles away in Bay City, we had no primary BC service, which is what prompted me to build a local station after returning home after WW2. I engineered and built WCEN, 500 W 1150 in 1948, and on the air in 1949.

Mt. Pleasant is in almost the exact center of lower MI, it is the home of CMU, Central Michigan University. I considered both WMTP and WCEN for the call sign, but decided on WCEN. However, when I applied for it, FCC said it was already assigned to a Coast Guard vessel. After some research I discovered that vessel had been decommissio;n 10 years earlier, so I contacted Treasury and asked them the release the call back to the FCC for reassignment to me. They did and the FCC did. Sadly, the station was sold in 2004 to a Saginaw based outfit, retaining the FM outlet, but deleting the AM.

Walt

2510. Re: V/I ratio is forced to Z0:was Mythbusters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:03:50 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <aCw4f.2914$tV6.446@newssvr27.news.prodigy.net>
Source record: 68657

Walter Maxwell wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>How long must the 50 ohm coax connected to the SWR meter be
>>for the SWR meter to report a valid SWR on that coax? The
>>answer obviously cannot be zero length.
>
> Cecil, as I explained earlier, if we're considering the Bruene type SWR
> indicator, the setting of the sampling cap in relation to the inductive sampling
> determines the measurement reference, not the length or Zo of the coax. So I
> repeat, with this SWR indicator zero coax length is sufficient. It will produce
> the same answer with a lumped impedance as the load as it will with the same
> impedance appearing as the input impedance of a coax.

But Walt, there no SWR possible on a zero length line. I think it
was Reg who said that first. I can now see how the initial confusion
arose and why the thread drifted.

Source---75 ohm line---SWR meter---load

The SWR meter will not report the actual SWR on the external 75 ohm line.

Source--75 ohm line--50 ohm line--SWR meter--load

The SWR meter will report the actual SWR on the external 50 ohm coax if
the external 50 ohm coax is _______ long.

Turns out the answer is a lot smaller than I previously thought.
The answer is less than one inch for the most popular 50 ohm coax's.

I didn't mean for the original question to be a trick question but it
apparently turned out that way.
--
73, Cecil http://www.qsl.net/w5dxp

2511. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:14:53 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11l564rca8fq2ec@corp.supernews.com>
Source record: 68658

Let us be clear: Richard Clark is not in the neighborhood of Flint.

A few factories still exist in the Flint neighborhood that are likely
significantly to attenuate AM broadcast signals (due to the plant's
construction). Square miles of such factories have been leveled to bare
ground in the I75 corridor.

One must conclude that the programming of local AM broadcasting stations
is not desired by the person having difficulty. Almost all of the local (to
Flint) stations are strong enough where the plants are located to be heard
inside of a plant.

A scheme that could be used to listen to WJR or WWJ is to have the audio
of an AM receiver in a vehicle located in an adjacent parking lot modulate a
small FM transmitter. A conventional FM receiver inside of the plant is
likely to receive a suitable signal. The power required by the system in
the vehicle could be small.

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:i405l1p350v2dute5i64464lrh7nipun3i@4ax.com...
> On Sun, 16 Oct 2005 11:01:40 -0400, Walter Maxwell <walt@w2du.com>
> wrote:
>
> >Sounds like you're in the Detroit area with 760 as WJR and 950 as WWJ. Am
I
> >close, or what?
>
> Good job, Walt. Flint.
>
> 73's
> Richard Clark, KB7QHC

2512. Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:28:36 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F174C016B0Cspectrumhogstarbandn@207.106.93.175>
Source record: 68659

Currently I have a coax fed trapped 75/40M dipole up between two trees. The spacing of the trees (a bit over 110 feet) allows this antenna with no extra length allowed, except for minimal support line and insulator length.

I plan on replacing this dipole with 450 ohm ladder line feed doublet so I can operate on more than just 75/40M, however a full 1/4 wave length for 75 would be too long to fit between these trees.

My QUESTION(s): How effective would a balanced fed dipole of about 100 feet length be on 75M ? Should it tune OK with a tuner such as the new MFJ balanced tuner? Or, if I were to put either the old 40M traps, or wind coils for the new dipole to shorten 75M resonance, would it then tune OK on all bands from 75M down with balanced feed?

Ed K7AAT

2513. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:31:27 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <n175l1p1jji3d06cadl29blei9v90v0vor@4ax.com>
Source record: 68660

On Sun, 16 Oct 2005 14:14:53 -0400, "J. Mc Laughlin" <jcm@power-net.net> wrote:

>Let us be clear: Richard Clark is not in the neighborhood of Flint.
>
> A few factories still exist in the Flint neighborhood that are likely
>significantly to attenuate AM broadcast signals (due to the plant's
>construction). Square miles of such factories have been leveled to bare
>ground in the I75 corridor.
>
> One must conclude that the programming of local AM broadcasting stations
>is not desired by the person having difficulty. Almost all of the local (to
>Flint) stations are strong enough where the plants are located to be heard
>inside of a plant.
>
> A scheme that could be used to listen to WJR or WWJ is to have the audio
>of an AM receiver in a vehicle located in an adjacent parking lot modulate a
>small FM transmitter. A conventional FM receiver inside of the plant is
>likely to receive a suitable signal. The power required by the system in
>the vehicle could be small.
>
> 73 Mac N8TT

Hi Mac,

Richard's mention of Flint is that apparently is where sofasurfer lives.

Walt

2514. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:33:34 UTC
From: chuck <nospam@nospam.net>
Message-ID: <22x4f.15263$vw6.6978@newsread1.news.atl.earthlink.net>
Source record: 68661

Thanks for the info, Frank.

Actually, the RSS125 on the site doesn't contain the procedure, but
RSS181, also available at that site, does.

FWIW, the procedure is basically what has been discussed, except that
the signal generator output to be recorded as the receiver's sensitivity
is that level which produces a 12 dB SINAD at 50% of rated audio output!
Probably a more realistic test than allowing the AF stage to operate at
a low-distortion level of something like 1% of rated output.

73,

Chuck
NT3G

Frank wrote:

>
> The old Canadian Department of Communications Document RSS 125 Issue 1,
> Released August 1st, 1976, precisely describes the method of SINAD
> measurements for SSB equipment. In the past 25 years or so, HP's distortion
> analyzers (such as the HP8903B) were used for this measurement. In the late
> 60s and early 70s I have seen Heathkit distortion analyzers used for SINAD
> measurements. The latest versions of RSS125 seem to be more in line with
> FCC standards, where receiver specifications are not required for
> certification purposes (See
> http://www.agiletestgroup.com/ICCertifications.html).
>
> 73,
>
> Frank
>
>

2515. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:45:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3s75l117b6lpa25qlb9u7jdjho47ific0a@4ax.com>
Source record: 68662

On Sun, 16 Oct 2005 17:43:40 GMT, Cecil Moore <mycall@arrl.net> wrote:
>> Cecil Moore <mycall@arrl.net> wrote:
>>>Myth YES.
>> Third-hand knowledge, Junk or Treasure?
>Actually, it doesn't rise to the definition of a myth.
>It wasn't a popular belief. :-)
Junkï¿½

2516. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 18:47:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5v75l1prkea1g1ien67ni55hvte9slpjd5@4ax.com>
Source record: 68663

On Sun, 16 Oct 2005 14:44:09 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Myth YES.
On Sun, 16 Oct 2005 17:49:44 GMT, Cecil Moore <mycall@arrl.net> wrote:
>not a myth.
must be a democrat from Massachusetts running for president.

2517. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:00:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <dae4c$4352a383$97d558d8$13098@ALLTEL.NET>
Source record: 68664

A G5RV would fit and meet your needs for all band operation with a tuner.

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96F174C016B0Cspectrumhogstarbandn@207.106.93.175...
>
> Currently I have a coax fed trapped 75/40M dipole up between two
> trees. The spacing of the trees (a bit over 110 feet) allows this
> antenna with no extra length allowed, except for minimal support line and
> insulator length.
>
> I plan on replacing this dipole with 450 ohm ladder line feed doublet
> so I can operate on more than just 75/40M, however a full 1/4 wave length
> for 75 would be too long to fit between these trees.
>
>
> My QUESTION(s): How effective would a balanced fed dipole of about
> 100 feet length be on 75M ? Should it tune OK with a tuner such as the
> new MFJ balanced tuner? Or, if I were to put either the old 40M traps,
> or wind coils for the new dipole to shorten 75M resonance, would it then
> tune OK on all bands from 75M down with balanced feed?
>
> Ed K7AAT

2518. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:05:45 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11l594jaadilp98@corp.supernews.com>
Source record: 68665

I am running a 100 ft bowtie antenna ok with link coupled transmatch, fed
with 450 ohm twin lead and it tunes 75 thru 10 meters
Each side of center feedpoint has a pair of 50 ft wires, that are connected
at the ends with a piece of 6 ft wire.
"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96F174C016B0Cspectrumhogstarbandn@207.106.93.175...
>
> Currently I have a coax fed trapped 75/40M dipole up between two
> trees. The spacing of the trees (a bit over 110 feet) allows this
> antenna with no extra length allowed, except for minimal support line and
> insulator length.
>
> I plan on replacing this dipole with 450 ohm ladder line feed doublet
> so I can operate on more than just 75/40M, however a full 1/4 wave length
> for 75 would be too long to fit between these trees.
>
>
> My QUESTION(s): How effective would a balanced fed dipole of about
> 100 feet length be on 75M ? Should it tune OK with a tuner such as the
> new MFJ balanced tuner? Or, if I were to put either the old 40M traps,
> or wind coils for the new dipole to shorten 75M resonance, would it then
> tune OK on all bands from 75M down with balanced feed?
>
> Ed K7AAT

2519. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:06:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <je85l11aob2da8qm8nr8qgkl07vc31q20r@4ax.com>
Source record: 68666

On Sun, 16 Oct 2005 18:28:36 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:
> I plan on replacing this dipole with 450 ohm ladder line feed doublet

Hi Ed,

The answers to your questions are found in the quote above.

If those bands on the old antenna were already resonant, and they
matched, then you didn't need 450 Ohm ladder line.

If you are going to use 450 Ohm ladder line on a generic doublet, it
stands to reason you won't be resonant much anywhere (or you don't
count on it) and you anticipate tuning and use this line for low loss.

The only thing left to be said is about the lobe structure at any
particular frequency. Long, long antennas at high frequency develop
sharp lobes and nulls. That being said, it is more a matter of where
you are pointed and where you want to be heard. The solution to that
is to use a fan tail design for the higher bands' sake.

Using a doublet, ladder line, and a tuner is classic - it works fine.

73's
Richard Clark, KB7QHC

2520. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:10:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8b95l157me52gqaoa0pn8gg6u4vrdf1ock@4ax.com>
Source record: 68667

On Sun, 16 Oct 2005 14:31:27 -0400, Walter Maxwell <walt@w2du.com>
wrote:
>Richard's mention of Flint is that apparently is where sofasurfer lives.

Hi Walt,

ï¿½3dB

73's
Richard Clark, KB7QHC

2521. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:18:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jn95l1tn1hsqv3917vq5s1l3umn166ssc9@4ax.com>
Source record: 68668

On Sun, 16 Oct 2005 14:14:53 -0400, "J. Mc Laughlin"
<jcm@power-net.net> wrote:
> Almost all of the local (to
>Flint) stations are strong enough where the plants are located to be heard
>inside of a plant.

Hi Mac,

According to our poster:
>On 15 Oct 2005 01:52:04 -0700, sofasurfer@blclinks.net wrote:
>
>>5.One day as I was fiddling with the wires on the back of the radio AM
>>suddenly came in loud and clear with no static for about 1 second. I
>>was unable to repeat this and that makes no sense to me.

proves you are quite right. His problem is a simple one of
installation, not performance nor availability.

73's
Richard Clark, KB7QHC

2522. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:38:14 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <G_x4f.793$S24.49713@news.xtra.co.nz>
Source record: 68669
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:CIidnWD3VOKnUszeRVn-oQ@adelphia.com...
> Ari Silversteinn wrote:
>> On Tue, 04 Oct 2005 19:40:18 -0400, Mike Coslo wrote:
>>
>>
>>> The Republicans are going to take care of all those problems! Darned
>>> Democrats anyhow!
>>>
>>> - Mike KB3EIA -
>>
>
> I won't deny it!
>
> Now, if you want my honest assessment, I find the whole thing fraught with
> ethical questions.
>
> What if someone isn't listening to the radio when the message is
> broadcast? What about the people who don't live near railroad tracks?
>
> If this thing is to *actually* work, it would have to be space based. Work
> with a database of the frequencies in use in the affected areas. broadcast
> on them as the need arises. FM will be easy. AM will be some more work. Of
> course you'll still have to deal with the people who aren't listening at
> the moment!
>
> Of course if it just a research project to burn up some money, then *that*
> is a different subject altogether!
>
> - Mike KB3EIA -

Space-based wouldn't work. You can't get a spot footprint small enough on
the earth's surface to make this do-able. Iridium comes about the closest,
but would you put up a constellation to provide the footprints and not use
it 99.999999999% of the time? :-)

Cheers.

Ken

2523. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:39:32 UTC
From: sofasurfer@blclinks.net
Message-ID: <1129491572.268237.281830@f14g2000cwb.googlegroups.com>
Source record: 68670

Walt and Richard. Yes, Flint area is right on. Actually I live in Davison and work in Lake Orion, which is where I am trying to get the signal at work.

2524. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:47:30 UTC
From: sofasurfer@blclinks.net
Message-ID: <1129492050.513321.302200@g47g2000cwa.googlegroups.com>
Source record: 68671

Actually, I just spoke to a guy at work who used an FM transmitter to broadcast an AM ballgame into the plant. He built the transmitter. I'd consider it a failure if I had to use a system where I have to go outside to change my station but if I can't get anywhere with this I may go that route. Beats having nothing to listen to.

2525. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:48:31 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <n8b5l11ml2gflgq97ag1th526b70f2hi77@4ax.com>
Source record: 68673

On Sun, 16 Oct 2005 17:49:44 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> The myth: Measurements with a Bird 43 of the conditions on the
>> Thruline section are invalid unless it has some minimum length of 50
>> ohm line on both sides of itself.
>>
>> Myth or not, YES or NO?
>
>Actually, upon closer examination, the definition of "myth"
>proves the above is NOT a myth. It is not a traditional story.
>It is not a parable allegory. It is not a popular belief.
>
>So, no Owen, it is not a myth.

Cecil, this is the opposite to your stated YES opinion just three
hours ago.

I am beginning to form the view that your opinion is just the opposite
of that expressed in the last posting you read, that you will argue
for arguments sake. When I look for consistency in you postings, it is
that they are consistently arguments against other propositions, even
if it means you have to change your own position to remain opposed. To
be kind, the devil's advocate.

Owen
--

2526. Re: rf-systems WFL antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:49:43 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <r9y4f.17193$q1.9848@newsread3.news.atl.earthlink.net>
Source record: 68672

"johan aeq" <pe1aeq@amsat.og> wrote in message
news:90f46$43528818$52ad139c$15540@news.versatel.nl...
> Hello,
> can you explain this antenna mentioned on this site?
> http://www.universal-radio.com/catalog/hamwire/2039.html
> A almost flat swr response with such a small antenna must be a folded T2FD
> antenna.
> Is there someone who has tested this antenna?
> Greetings Johan PE1AEQ
>

It sounds like someone is trying to sell junk at a high price. Unless the
price is also for the supporting poles. Oxygen-free copper wire sounds like
the HI-FI boys and their Monster Wire are at it again.

2527. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 19:58:40 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Qhy4f.17197$q1.15584@newsread3.news.atl.earthlink.net>
Source record: 68674

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96F174C016B0Cspectrumhogstarbandn@207.106.93.175...
>
> Currently I have a coax fed trapped 75/40M dipole up between two
> trees. The spacing of the trees (a bit over 110 feet) allows this
> antenna with no extra length allowed, except for minimal support line and
> insulator length.
>
> I plan on replacing this dipole with 450 ohm ladder line feed doublet
> so I can operate on more than just 75/40M, however a full 1/4 wave length
> for 75 would be too long to fit between these trees.
>
>
> My QUESTION(s): How effective would a balanced fed dipole of about
> 100 feet length be on 75M ? Should it tune OK with a tuner such as the
> new MFJ balanced tuner? Or, if I were to put either the old 40M traps,
> or wind coils for the new dipole to shorten 75M resonance, would it then
> tune OK on all bands from 75M down with balanced feed?
>
> Ed K7AAT

If you are not satisified with the antenna you have then I would put up about 130 feet of wire and feed it in the middle with the balanced feed. If you can not get up the full 130 feet or so of wire, put it all up and let the ends hang down. That is the support ropes could be attached 10 to 15 feet from each end and then you let whatever is left over hang down. Just don't let the ends reach close enough to the ground where someone could reach them. Shock and RF burns.

If you go to the 100 feet and feed it with open wire , you are trying to make the antenna into a g5rv if you use whatever length of feedline the g5rv calls for. Not really that good of an antenna for working all bands.

2528. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 20:18:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xAy4f.2235$D13.1759@newssvr11.news.prodigy.com>
Source record: 68739

Ed wrote:
> My QUESTION(s): How effective would a balanced fed dipole of about
> 100 feet length be on 75M ?

Make it 102 ft. and you will have the G5RV length about which
virtually everything in the world is known. It works so well
on 75m that you should not be able to notice the difference.
How easy/hard it is to match will depend upon the feedline
length.
--
73, Cecil http://www.qsl.net/w5dxp

2529. F9FT website

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 20:35:26 UTC
From: Rafał Likus <rgl@azot.tlen.pl>
Message-ID: <diudikjtn1@atlantis.news.tpi.pl>
Source record: 68675

Hello!

Because F9FT website is offline for some time and I'm looking for some
informations from this www.

Have anybody mirrored this website and could share it for me?

--
Regards,
Rafal Likus SQ9CWN SP5PIP/SN5P Team http://www.sp5pip.waw.pl/eng/
remowe azot. from my email address...

2530. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 20:36:26 UTC
From: richardharrison@webtv.net
Message-ID: <23479-4352B9CA-778@storefull-3257.bay.webtv.net>
Source record: 68726

Jerry Martes wrote:
"It is difficult for me to believe that you installed (properly) an amplified AM antenna from a modern car, on te outside of the metal building, and didn`t get decent reception."

The usual AM car antenna has an impedance of about 5000 ohms. Car coax is special. It has a fine-wire center conductor inside an air-dielectric covered by metal braid. It marches the 5000-ohm antenna.

50-ohm coax makes a capacitive voltage divider (uigh-value attenuator) when used with a car antenna. The longer the 50-ohm coax, the more severe the attenuation.

The active (amplified) antenna could easily be designed for a high input impedance and a low output impedance. It coulf use a an emitter follower as an output stage. What Sofasurfer has is unknown.

A low-impedance shielded line is less susceptible to noise pickup than unshielded wire. Coax is OK. Balanced twisted pair is not too susceptible to noise. But as Sofasurfer`s experience shows, severe mismatch is a killer. He needs either a low-impedance antenna or a matching device to step the high-impedance antenna output down to the line`s impedance. A hollower can do that almost without losing voltage. A broadcast loop for the AM band is a low-impedance because the wavelengrh is so long or it can be tapped or loop-coupled to a low impedance.

Best regards, Richard Harrison, KB5WZI

2531. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 21:20:22 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1sf5l1dv5hbee2lour8mijr6vrlsphfh11@4ax.com>
Source record: 68727

On Sun, 16 Oct 2005 18:28:36 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>

> My QUESTION(s): How effective would a balanced fed dipole of about
>100 feet length be on 75M ? Should it tune OK with a tuner such as the
>new MFJ balanced tuner? Or, if I were to put either the old 40M traps,
>or wind coils for the new dipole to shorten 75M resonance, would it then
>tune OK on all bands from 75M down with balanced feed?

Ed,

When you analyse the performance of a centre fed dipole antenna system, you will find that for most practical dipoles, the challenge is getting most of the power to the feed point, rather than the ohmic losses in the radiator itself.

By the time the dipole is long enough to obtain acceptable performance from a practical feed system, the loss in the radiator itself is typically less than 0.5dB (unless you contrive do something pretty silly).

It turns out that it becomes quite challenging to implement an efficient feed system (especially over a wide frequency range) where the dipole is less than about 35% of a wavelength at the lowest frequency.

Now, the 100' you nominate is so close to the length of a G5RV that you could draw some information from analyes of the G5RV. I wrote one that focusses on the performance of common distortions of G5RV's design and examines particularly the feed system performance, which I suggest to you is the most significant influence on antenna system efficiency in this case. Unlike many other analyses of the G5RV, this does not just consider ham band performance, it models performance every 100KHz from 1MHz to 30MHz, so you can see a continuous view of the behaviour. The article is at http://www.vk1od.net/G5RV/ .

But you weren't asking about a G5RV were you. Look at Figure 10 and the "Classic tune feeder" topic which is a 30m dipole fed with 23m of ideal 600 ohm open wire feeder. (Ladder line won't perform quite that well, especially when wet). That topic is directly relevant to your proposal.

Nothing in the feed system affects the pattern (in three dimensions), that is determined by the length of the dipole, and its environment.

Owen
--

2532. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 21:36:32 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <AJz4f.3371$t12.1539@trnddc03>
Source record: 68728

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:23479-4352B9CA-778@storefull-3257.bay.webtv.net...
> Jerry Martes wrote:
> "It is difficult for me to believe that you installed (properly) an
> amplified AM antenna from a modern car, on te outside of the metal
> building, and didn`t get decent reception."
>
> The usual AM car antenna has an impedance of about 5000 ohms. Car coax
> is special. It has a fine-wire center conductor inside an air-dielectric
> covered by metal braid. It marches the 5000-ohm antenna.
>
> 50-ohm coax makes a capacitive voltage divider (uigh-value attenuator)
> when used with a car antenna. The longer the 50-ohm coax, the more
> severe the attenuation.
>
> The active (amplified) antenna could easily be designed for a high input
> impedance and a low output impedance. It coulf use a an emitter follower
> as an output stage. What Sofasurfer has is unknown.
>
> A low-impedance shielded line is less susceptible to noise pickup than
> unshielded wire. Coax is OK. Balanced twisted pair is not too
> susceptible to noise. But as Sofasurfer`s experience shows, severe
> mismatch is a killer. He needs either a low-impedance antenna or a
> matching device to step the high-impedance antenna output down to the
> line`s impedance. A hollower can do that almost without losing voltage.
> A broadcast loop for the AM band is a low-impedance because the
> wavelengrh is so long or it can be tapped or loop-coupled to a low
> impedance.
>
> Best regards, Richard Harrison, KB5WZI

Hi Richard

I had assumed that the OP was just interested in just getting an AM radio
to work inside the metal building. And, actually I'm no expert on the
design of AM receivers. I have considered the "car AM antenna" to be more
of a probe of the currents conducted on the outside of the car. I thought
the reason that the "high impedance coax" to be used for car AM radios was
because that high impedance is more importantly the lowest shunt capacity.
I've been considering the car's feed line to be a capacitor shunting the AM
signal across the receiver's input, and across the antenna connection.

There are many cars today that have amplifiers mounted in the base of
their AM antennas. Those "amplified antennas", like in even VWs will work
OK even with a lower impedance coax to the receiver.

The antenna doesnt need to be on the top of the building. It only needs to be outside, as you know.
The cost of the entire radio and antenna amplifier from a wrecked VW is probably affordable in Detroit.
I have aQST article that deal with this "amplified AM antennas" subject.
I thought it was best to wait for sofasurfer's response before my writing alot about the theory and/or details.

Jerry

2533. Re: rf-systems WFL antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 21:47:00 UTC
From: jgboyles@aol.com
Message-ID: <1129499219.974415.312130@f14g2000cwb.googlegroups.com>
Source record: 68729

johan aeq wrote:
> Hello,
> can you explain this antenna mentioned on this site?
> http://www.universal-radio.com/catalog/hamwire/2039.html
> A almost flat swr response with such a small antenna must be a folded T2FD
> antenna.
> Is there someone who has tested this antenna?
> Greetings Johan PE1AEQ
Hi Johan, I think you have the right idea. A broadband power
limited small antenna suggests resistive loading at the feedpoint. It
will work, just not very well until you get above the frequency at
which the wire portion starts having some efficiency. As a guess, this
one might do OK above 14 MHZ.
A magnetic loop generally refers to a small loop with a very narrow
bandwith, tuned by a variable capacitor. The claim that this is a
magnetic loop on low bands does not hold up because of the broad band
claim.
Gary N4AST

2534. Re: rf-systems WFL antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 21:56:50 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <17958$4352ccea$97d558d8$28903@ALLTEL.NET>
Source record: 68730

Especially since oxygen free is another term for pure copper.

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:r9y4f.17193$q1.9848@newsread3.news.atl.earthlink.net...
>
> "johan aeq" <pe1aeq@amsat.og> wrote in message
> news:90f46$43528818$52ad139c$15540@news.versatel.nl...
> > Hello,
> > can you explain this antenna mentioned on this site?
> > http://www.universal-radio.com/catalog/hamwire/2039.html
> > A almost flat swr response with such a small antenna must be a folded
T2FD
> > antenna.
> > Is there someone who has tested this antenna?
> > Greetings Johan PE1AEQ
> >
>
> It sounds like someone is trying to sell junk at a high price. Unless the
> price is also for the supporting poles. Oxygen-free copper wire sounds
like
> the HI-FI boys and their Monster Wire are at it again.
>
>

2535. Re: F9FT website

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 21:59:09 UTC
From: FredSmith <nospam@nospam.net>
Message-ID: <n8j5l1litra0c3cr39h861qun2ton8g3so@4ax.com>
Source record: 68731

http://www.ra3dq.newmail.ru/f9ft.html
has some dimensions

On Sun, 16 Oct 2005 22:35:26 +0200, Rafaï¿½ Likus <rgl@azot.tlen.pl>
wrote:

>Hello!
>
>Because F9FT website is offline for some time and I'm looking for some
>informations from this www.
>
>
>Have anybody mirrored this website and could share it for me?

2536. Non Radiative Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 22:06:33 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_4352c300@fidonet.org>
Source record: 68732

Hi,

Please, somebody explain the following to me:

/ What will be the next great invention on the order of the laser? We
don't know, but clever new ideas keep coming along. The
second-place award in the technological innovation competition went
to Marin Soljacic (MIT) for his concept of wireless, non-radiative
energy transmission. Just as in the quantum case in which the
Schrodinger equation allows for a wave trapped in a box to tunnel
out, so Maxwell's equations allow for the leakage of electromagnetic
energy from an electromagnetic resonance object. If another such
object were placed not far from the first one, and the resonant
frequencies of both were the same, then the energy could be
transferred between them with very little energy lost to other
objects in the nearby environmental that do not share the same
resonant frequency. The transmitted energy, although
electromagnetic in nature, would not be referred to as "radiation"
since it is bound to the resonant objects. It is rather an example
of "near-field" physics. Soljacic avoids words like "antenna,"
since the process does not involve broadcasts of energy in the usual
sense. In contrast, the vast majority of energy radiated by
antennas is typically wasted and lost into free space, while only a
small portion is picked up by the eventual receivers. Instead,
Soljacic uses terms like "source" and "drain" in analogy with
transistors to describe the movement of energy. An exemplary setup
might consist of a transmitter in a ceiling and devices in that room
(e.g robots, or computers) being powered wirelessly by this energy.
/

A*s*i*m*o*v

... Light at the end of the tunnel may be an oncoming train!

2537. Re: Non Radiative Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 22:33:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ghk5l1dcqfat2u8q4vq4mc8mn8ae70uirf@4ax.com>
Source record: 68733

On Sun, 16 Oct 2005 22:06:33 GMT, "Asimov"
<Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote:

>Hi,
>
>Please, somebody explain the following to me:

it is called parsing:
>
>/ What will be the next great invention on the order of the laser? We
> don't know, but clever new ideas keep coming along.

The usual side-show opening.

[material that followed and not included here, parsed to 0]

>The transmitted energy

the radiated energy [need one actually go on?]

>, although electromagnetic in nature

electromagnetic transmitted energy

>would not be referred to as "radiation" since it is bound to the resonant objects.

All things resonant radiate - a fact of life

If the authors intend that the energy moves by any method, even by a
speculative means, resonance is immaterial.

>It is rather an example of "near-field" physics.

which is a characteristic of radiation

>Soljacic avoids words like "antenna,"

How do you make a chocolate cake when the recipe does not call for
chocolate? Use Cocoa.

> since the process does not involve broadcasts of energy in the usual
> sense.

in the un-usual sense does not change physics, it simply changes an
expression to un-chocolate cake.

[material that followed and not included here, parsed to 0]

>An exemplary setup
> might consist of a transmitter in a ceiling and devices in that room

> (e.g robots, or computers) being powered wirelessly by this energy.

and have been with us since Tesla. They are called transformers.

2538. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 23:21:31 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <3pn5l1ddt24q9lln2osdqlu9bdca5862j5@4ax.com>
Source record: 68734

On Sun, 16 Oct 2005 21:20:22 GMT, Owen Duffy <owen@no.where> wrote:

>On Sun, 16 Oct 2005 18:28:36 GMT, Ed
><Huckleberry_REMOVE_@bigvalley.net> wrote:
>
>>
>
>> My QUESTION(s): How effective would a balanced fed dipole of about
>>100 feet length be on 75M ? Should it tune OK with a tuner such as the
>>new MFJ balanced tuner? Or, if I were to put either the old 40M traps,
>>or wind coils for the new dipole to shorten 75M resonance, would it then
>>tune OK on all bands from 75M down with balanced feed?
>
>Ed,
>
>When you analyse the performance of a centre fed dipole antenna
>system, you will find that for most practical dipoles, the challenge
>is getting most of the power to the feed point, rather than the ohmic
>losses in the radiator itself.
>
>By the time the dipole is long enough to obtain acceptable performance
>from a practical feed system, the loss in the radiator itself is
>typically less than 0.5dB (unless you contrive do something pretty
>silly).
>
>It turns out that it becomes quite challenging to implement an
>efficient feed system (especially over a wide frequency range) where
>the dipole is less than about 35% of a wavelength at the lowest
>frequency.
>
>Now, the 100' you nominate is so close to the length of a G5RV that
>you could draw some information from analyes of the G5RV. I wrote one
>that focusses on the performance of common distortions of G5RV's
>design and examines particularly the feed system performance, which I
>suggest to you is the most significant influence on antenna system
>efficiency in this case. Unlike many other analyses of the G5RV, this
>does not just consider ham band performance, it models performance
>every 100KHz from 1MHz to 30MHz, so you can see a continuous view of
>the behaviour. The article is at http://www.vk1od.net/G5RV/ .
>
>But you weren't asking about a G5RV were you. Look at Figure 10 and
>the "Classic tune feeder" topic which is a 30m dipole fed with 23m of
>ideal 600 ohm open wire feeder. (Ladder line won't perform quite that
>well, especially when wet). That topic is directly relevant to your

>proposal.
>
>Nothing in the feed system affects the pattern (in three dimensions),
>that is determined by the length of the dipole, and its environment.

Hmmm.

Duffy (http://www.vk1od.net/G5RV/) says, see Cebik
(http://www.cebik.com/wire/g5rv.html)

Cebik (http://www.cebik.com/wire/g5rv2.html) says, see Duffy
(http://www.vk1od.net/G5RV/)

I'm going around in circles. :-)

2539. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-16 23:45:42 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <e9o5l11iaq0tggmpqd8edkaoqr5c34gopl@4ax.com>
Source record: 68735

On Sun, 16 Oct 2005 16:21:31 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>
>Hmmm.
>
>Duffy (http://www.vk1od.net/G5RV/) says, see Cebik
>(http://www.cebik.com/wire/g5rv.html)
>
>Cebik (http://www.cebik.com/wire/g5rv2.html) says, see Duffy
>(http://www.vk1od.net/G5RV/)
>
>
>I'm going around in circles. :-)

Wes,

A bit of mutual citation, bit obvious isn't it when there isn't some
indirection like a few intermediate authors / articles!

Nevertheless, LB Cebik deals more with patterns, and I deal more with
the feed system, and of course the big picture means considering them
both. I happily link to LB for people to read some useful info on the
other aspect. Is that too cosy for you?

More importantly, if you found any faults with my analysis, let me
know?

Owen
--

2540. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 00:04:18 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <2UB4f.445105$5N3.395971@bgtnsc05-news.ops.worldnet.att.net>
Source record: 68736

Cecil Moore wrote:

> And if you will remember, the original question didn't involve the
> SWR meter at all. The question was: Are my 2-foot sections of RG-400
> connected to my SWR meter long enough to ensure that the SWR meter
> reading is valid for the coax? Remember that argument?
>
> The threads for the past few days have all diverged from that
> original question which was:
>
> How long must the 50 ohm coax connected to the SWR meter be
> for the SWR meter to report a valid SWR *on that coax*? The
> answer obviously cannot be zero length.

Cecil,

What has become quite clear from this lengthy thread and the experiments reported is that what you seek is impossible. The design and physical configuration of the Bird 43, and probably most or all simple SWR meters, is such that the measurement is completely unaware of the external "environment". The Bird 43 correctly reports system mismatch, such as that from a load that differs from 50 ohms, but it ignores any artificial mismatch from the adjacent coax.

A report of the valid SWR *on that coax* will happen only by coincidence. The meter does not care about the length. Zero is just as good an answer as any other length.

And who would really care to know such a thing? The unknown of interest is generally a load or matching device, not the improper coax.

If you really need to know the "valid SWR" on the mismatched coax you are going to need a different technique and instrument.

73,
Gene
W4SZ

2541. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 00:05:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <qjp5l19pleh9e5kpplq07oa5s5l8o15imq@4ax.com>
Source record: 68737

On Sat, 15 Oct 2005 00:40:34 GMT, "W3JDR" <joe@roccis.com> wrote:

>Recently, it has become quite easy to do true RMS measurement at audio
>frequencies using DSP techniques. In fact at audio you can even do an
>accurate RMS measurement in DSP using a PIC microcontroller to sample the
>signal and perform the calculations.

I mentioned in an earlier post that I had done some comparisons of true RMS response based SINAD measurements and average responding meters.

I have just rerun the test.

I have a receiver with 2400Hz wide IF , fed with SSG and connected to a HP334A Distorion Analyser. I have adjusted the SSG for 12dB indicated SINAD on the HP334A.

The HP334A's meter is boldly labelled RMS, but it is an average responding meter scaled for RMS with a sine wave.

I measured the output from the HP334A using a no-name true RMS voltmeter that covers the audio frequencies involved (trap there... some dont make it past power frequencies), and measured SINAD of 11.3dB.

I connected the HP334A output to a PC running FSM and measured the following figures for Vtotal and Vfiltered

total filtered
V Average 2708 679
V RMS 2753 763
V Peak 4287 2302

(The three detectors in FSM are all calibrated to read the same on a sine wave.)

The FSM measurements indicate a SINAD of 11.1dB RMS responding and 12dB average responding.

Overall, the two / three methods are reasonably consistent indicating around 12dB SINAD using an average response meter, and around 11.2 dB using RMS responding meters.

That suggests to me that using an average responding instrument may overestimate the SINAD by a little less than a dB. However, given the statistical variance of the noise, I would not be fretting about it, especially on an FM rx where it might only need a smaller change in C/N for that SINAD change.

I connected the rx to a Motorola R1013A which indicated 12dB SINAD (it is most unlikely to have an RMS responding ALC and meter).

Owen
--

2542. "Fan" Full Wave Loops?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 00:16:22 UTC
From: Bill Cherepy <wb4wtn@mindspring.com>
Message-ID: <96r5l15hkrp526ose6g5prisrnkpdjmij7@4ax.com>
Source record: 68738

During a discussion of loops someone asked me if you can have a full wave 40 meter loop inside a full wave 80 meter loop and I don't know the answer. Anyone?

Bill Cherepy
Grayson, GA

2543. Re: "Fan" Full Wave Loops?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 01:16:44 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <tkab23-713.ln1@p400bob.personal.cox.net>
Source record: 68740

Hi Bill

Well I quite happily ran a 6M loop inside a 15M one. Seperate feedpoints etc. In my case I was trying to use the same mounting points (trees).

I didnt check how effective they were but the TX was happy and I spoke to people on them!. Used 75r Q sections on each.

The 40 vs 80 might have some detuning effect on 40M and major pattern change due to the harmonic relationship. You can always try modelling it..

Cheers Bob VK2YQA

Bill Cherepy wrote:
>
> During a discussion of loops someone asked me if you can have a full
> wave 40 meter loop inside a full wave 80 meter loop and I don't know
> the answer. Anyone?

2544. More BPL...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 02:20:23 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <hi26l1patev73i5n3l643acrl1tesq9fi4@4ax.com>
Source record: 68741

Dang, dang, dang...

http://www.nytimes.com/2005/10/17/technology/17powerlines.html

bob
k5qwg

2545. Re: "Fan" Full Wave Loops?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 02:27:20 UTC
From: richardharrison@webtv.net
Message-ID: <23479-43530C08-798@storefull-3257.bay.webtv.net>
Source record: 68742

Bill Cherepy wrote:
"---can have a full wave 49 meter loop inside a full wave 80 meter loop---?"

Bill Orr, W6SAI wrote a book, "All About Cubical Quad Antennas". One topic is "Concentric Quad Antennas" starting on page 49. Bill Orr says: "Interaction between the antennas of a two-band Quad is quite low." Orr suggests separate feedlines for each antenna and making feedline lengths odd multiples of a 1/4-wave so that the open-circuit of the unused feedline will appear as a short-circuit at its antennas resonant frequency at its feedpoint. Thus the unused assembly won`t likely respond much at other frequencies.
Of course, antennas have a second resonance at about double their first resonant frequency. Having the open end of the unused feedline available, one could deliberately detune the second antenna to reduce interaction.

Best regards, Richard Harrison, KB5WZI

2546. Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 02:35:05 UTC
From: Rockinghorse Winner <rockinghorse@phreaker.net>
Message-ID: <1129516505.077205.187460@g49g2000cwa.googlegroups.com>
Source record: 68743

Hey. I'm newly licensed tech (studying for General). I looked up my questions in Handbook but could not find info. I am construct-ing a dipole antenna for 15 Meters from insulated 18 guage battery wire from the auto parts store. Since I will be going QRP for the first weeks or month, I am not worried about power handling capacity. But, will I have to upgrade my wire when I go to 50 or 100 watts output? Also, I have a question about the insulated wire: is the insulation an impediment to the functioning of the antenna on HF? Thanks for being patient with a newbie.

Rockinghorse Winner
KI6AZS

2547. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 02:44:54 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F1C8E56BC7Cspectrumhogstarbandn@207.106.93.175>
Source record: 68744

>> Ed wrote:
>> My QUESTION(s): How effective would a balanced fed dipole of
about
>> 100 feet length be on 75M ?

> Make it 102 ft. and you will have the G5RV length about which
> virtually everything in the world is known. It works so well
> on 75m that you should not be able to notice the difference.
> How easy/hard it is to match will depend upon the feedline
> length.

Thank you, Cecil. Very few here responded to my questions the way I had hoped, although there was some very good info in those responces.

I had wondered what the effect of inductance in the dipole legs would have on a balanced fed antenna. It now appears that to get decent results on 75M I don't need to do that, anyway.

I had not thought much about adding dropping wires to the ends of my dipole legs, as one fellow suggested, because the trees are so conical shaped that their lower branches would likely be in the way of the vertical wires coming down off the ends.

I guess I need to research the G5RV antenna. Someone else here posted a nice URL to a site on it and I will be perusing it more.

Cecil, I definitely can make my dipole 102 feet accross the top. I am guesstimating that I will need approximately 35 or 40 feet of feedline from the shack to the feedpoint. Do you see any issues with that?

Ed K7AAT

2548. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 02:48:13 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F1C975E5D8Fspectrumhogstarbandn@207.106.93.175>
Source record: 68745

> If those bands on the old antenna were already resonant, and they
> matched, then you didn't need 450 Ohm ladder line.
>
> If you are going to use 450 Ohm ladder line on a generic doublet, it
> stands to reason you won't be resonant much anywhere (or you don't
> count on it) and you anticipate tuning and use this line for low loss.

Thanks, Richard.

My main concern was that trying to tune a 100 foot dipole on 75M
might cause problems due to the dipole being shorter than halfwave on
75M. From what I am now concluding from your comments, and others',
this probably won't be an issue?

Ed

2549. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 02:52:44 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F1CA3A2E987spectrumhogstarbandn@207.106.93.175>
Source record: 68746

```
).
>
> It turns out that it becomes quite challenging to implement an
> efficient feed system (especially over a wide frequency range) where
> the dipole is less than about 35% of a wavelength at the lowest
> frequency.

Yes, my 100 foot length would be about 42% ofthe wavelength of my
lowest operating band, 75M.... perhaps it wouldn't be any problem for my
cheap MFJ balanced line tuner to feed it?

I appreciate your comments. I'm off shortly to study the website you
pointed me to. Thanks.

Ed K7AAT
```

2550. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 03:00:55 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F1CB9D1F2ACspectrumhogstarbandn@207.106.93.175>
Source record: 68747

> Hey. I'm newly licensed tech (studying for General). I looked up
> my questions in Handbook but could not find info. I am construct-
> ing a dipole antenna for 15 Meters from insulated 18 guage battery
> wire from the auto parts store. Since I will be going QRP for the
> first weeks or month, I am not worried about power handling
> capacity. But, will I have to upgrade my wire when I go to 50
> or 100 watts output? Also, I have a question about the insulated
> wire: is the insulation an impediment to the functioning of the
> antenna on HF? Thanks for being patient with a newbie.
>

Short answers: 18 guage will handle 100 watt transmitter. Insulated
wire will provide no discernable effect to your antenna performance.

Ed K7AAT

2551. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 03:09:11 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <fn46l1hajq1vpmcfulj87k38a1nt5vgdaf@4ax.com>
Source record: 68748

On Mon, 17 Oct 2005 00:05:18 GMT, Owen Duffy <owen@no.where> wrote:

This is seriously bad, replying to one's own post... but.

It occurs to me a quick test to reveal whether a SINAD meter is RMS responding or average responding is to test it with a 1KHz square wave. I am not suggesting this as a cal procedure, just a test that is more sensitive to the meter response than noise testing.

IIRC, the Taylor series coefficients for a square wave are: all even harmonics are 0, the others are 4/pi/n.

So, theoretically:
- an ideal average responding meter should read (1-2/pi)% which is 36.3% or 8.8dB on an perfect square wave;
- an ideal RMS responding meter should read (1-(2^-0.5*4/PI())^2)^0.5*100% which is 43.5% or 7.23dB.

Does the maths make sense?

I observe that my R1013A indicates 9dB on a good square wave, and the HP334A around 35% (9.1dB)... so another indication that they are average responding. I expect the readings a little low because neither instrument has infinite bandwidth.

Owen
--

2552. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 03:28:07 UTC
From: Rockinghorse Winner <rockinghorse@phreaker.net>
Message-ID: <1129519687.685527.147920@g49g2000cwa.googlegroups.com>
Source record: 68749

Thank's, Ed!

73

Rockinghorse Winner
KI6AZS

2553. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 03:40:05 UTC
From: richardharrison@webtv.net
Message-ID: <4152-43531D15-65@storefull-3254.bay.webtv.net>
Source record: 68750

Gene, W4SZ wrote:
"The unknown of interest is generally a load or matching device, not the improper coax."

Bird says:
"The Model 43 THRULINE Directional Wattmeter is a portable insertion-type instrument which accurately measures forward or reflected power in coaxial transmission lines under any load condition."

I accept the above description as I`ve seen confirmation under many conditions.

Bird also says:
"Line section:
The line section is a high precision 50 ohm coaxial air line designed for transmission line insertion between the transmitter and the antenna or load. A socket is provided in each line section for the plug-in element with the desired power rating and frequency range."

The width of the instrument including connectors is given as 4.25 inches. This makes the preciaion coax section longer than its width or spacing. I conclude from this that it is capable of enforcing its 50 ohms.

Bird mentions cable lengths in regard to VHF measurements. They suggest that insertion and removal of the 43 with random length cables attached may affect the load match unless it is made exactly a total of 1/2-wavelength. In the 1/2-wave case, insertion and removal have no effect on the load match. I`ve done this countless times and attest to its effectiveness.

If there were other possible problems with Bird cable lengths, they would have appeared during the past 50 years and been reported.

Best regards, Richard Harrison, KB5WZI

2554. Re: "Fan" Full Wave Loops?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 04:09:14 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <UrF4f.28112$5l.3879@bignews1.bellsouth.net>
Source record: 68751

"Bill Cherepy" <wb4wtn@mindspring.com> wrote in message
news:96r5l15hkrp526ose6g5prisrnkpdjmij7@4ax.com...
> During a discussion of loops someone asked me if you can have a full
> wave 40 meter loop inside a full wave 80 meter loop and I don't know
> the answer. Anyone?
>
> Bill Cherepy
> Grayson, GA

Many folks use that loop and a tuner for multiple band operation, and
therefore the smaller loop would not be needed.

2555. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 04:21:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cc96l1d8hcfk65c8vk5kd6b8ka1hkdqvuf@4ax.com>
Source record: 68752

On Mon, 17 Oct 2005 02:48:13 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

> My main concern was that trying to tune a 100 foot dipole on 75M
>might cause problems due to the dipole being shorter than halfwave on
>75M. From what I am now concluding from your comments, and others',
>this probably won't be an issue?

Hi Ed,

An antenna can be too long, an antenna can be too short. Somewhere
over the span of all the HF bands, one antenna qualifies for one of
those two conditions. The issue is can you cope?

A tuner can usually resolve the problem of match, but it cannot do
anything about line loss for certain situations. Using the ladder
line answers that.

Finally, unless you demand the point shaving of eking out every tenth
dB for contesting, the combination of a 100 foot doublet, a tuner and
ladder line will give you just as good service as a tuned dipole.

73's
Richard Clark, KB7QHC

2556. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 04:25:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <dJF4f.2616$BZ5.1852@newssvr13.news.prodigy.com>
Source record: 68753

Ed wrote:
> Cecil, I definitely can make my dipole 102 feet accross the top. I
> am guesstimating that I will need approximately 35 or 40 feet of feedline
> from the shack to the feedpoint. Do you see any issues with that?

That's a very good length for 40m, 17m, & 10m. You can analyze the
antenna yourself by downloading the free demo version of EZNEC
from www.eznec.com. If you want, I'll send you a model of your
antenna so all you have to do is click the mouse.
--
73, Cecil http://www.qsl.net/w5dxp

2557. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 04:29:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <DMF4f.2617$BZ5.2352@newssvr13.news.prodigy.com>
Source record: 68754

Ed wrote:
> My main concern was that trying to tune a 100 foot dipole on 75M
> might cause problems due to the dipole being shorter than halfwave on
> 75M. From what I am now concluding from your comments, and others',
> this probably won't be an issue?

Walter Maxwell of "Reflections" fame recommends a minimum length
for a dipole of 3/8 wavelength. 102 ft is 3/8 wavelength on
about 3.6 MHz so it should and does work well. That's the length
of my dipole.
--
73, Cecil http://www.qsl.net/w5dxp

2558. Re: Non Radiative Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 04:57:18 UTC
From: richardharrison@webtv.net
Message-ID: <26930-43532F2E-878@storefull-3253.bay.webtv.net>
Source record: 68755

Asimov wrote:
"The transmitted energy, although electromagnetic in nature, would not be referred to as "radiation" since it is bound to the resonant objects."

A mistaken idea is expressed above. Radiation happens from conductors carrying radio frequencies. Radiation escapes. That`s a definition of radio. It`s the energy that gets away. It may be hard to contain.

When a conductor is swept by r-f, the current which flows upon or within a conductor depends on its impedance. Unless the conductor is without significant reactance, little current flows. A resonant, and low-resistance conductor may have a large current flow, depeending also on the strength of the electromagnetic (r-f) field.

Induced current on a conductor will all be re-radiated if there is no loss to a load or heat conversion. There is coupling between source and receiving conductors. A synonym is mutual impedance. Maximum available power out to a load on an antenna is 50% of that captured. The other 50% is lost in the antenna`s source impedance (its radiation resistance). In other words, it is re-radiated.

Mutual impedance does not trap energy on or in a conductor or limit excitation of multiple conductors.

Necessity is said to be the mother of invention. Identify the greatest needs and you may forecast some invention.

Best regards, Richard Harrison, KB5WZI

2559. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 05:09:06 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1ac6l1lkejh84je8qllbhsj1i1r85d7h4e@4ax.com>
Source record: 68756

On Mon, 17 Oct 2005 03:09:11 GMT, Owen Duffy <owen@no.where> wrote:

>So, theoretically:
>- an ideal average responding meter should read (1-2/pi)% which is
>36.3% or 8.8dB on an perfect square wave;

I think this is close to the right answer, but for the wrong reason. I
think it needs to be evaluated iteratively, and I get an answer closer
to 34.3% or 9.3dB.

Owen
--

2560. Re: More BPL...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 10:46:02 UTC
From: gsm@mendelson.com
Message-ID: <slrndl7038.7kp.gsm@cable.mendelson.com>
Source record: 68757

In article <hi26l1patev73i5n3l643acrl1tesq9fi4@4ax.com>, Bob Miller wrote:
> Dang, dang, dang...
>
> http://www.nytimes.com/2005/10/17/technology/17powerlines.html

They laughed at me when I asked them to boycott Google. Now it's come home
to roost. Current Communications is funded partily by Google.

I hate being right.

Geoff.

--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (077)-424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
Support the growing boycott of Google by radio users and hobbyists.
It's starting to work, Yahoo has surpassed Google.

2561. Free Competition - Win an Icom IC-V82

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 10:59:42 UTC
From: Richard g4tut <g4tut@southgatearc.org>
Message-ID: <i017l151ns77jesnsmman4k9uoe45nbas4@4ax.com>
Source record: 68758

There is a free competition running on the Southgate Amateur Radio
Club's website.

The prize is a brand-new Icom IC-V82 high-power handheld transceiver,
kindly donated by Icom-UK Ltd

To enter the competition, you just need to answer a simple question.
The competition page can be found at:
http://www.southgatearc.org/competitions/ic-v82.htm

The competition closes on the 4th January, so there's plenty of time
to get your entries in. You can make one entry per day.

Good Luck!

Daily Amateur Radio News Service
http://www.southgatearc.org

RSS News Feed
http://www.southgatearc.org/sarc.rss

2562. Re: More BPL...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 11:36:01 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <romdnZi-TsRtEc7eRVn-pw@comcast.com>
Source record: 68759

ARRL has recently reported quite acceptable compatibility results in
some BPL programs they have been testing.

I forget the details, 68 years old and suffering from occasional 'old
timers disease', but the info should be available from ARRL.

It is possible that acceptable BPL technology has arrived!

AK

Bob Miller wrote:
> Dang, dang, dang...
>
> http://www.nytimes.com/2005/10/17/technology/17powerlines.html
>
> bob
> k5qwg

2563. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 11:38:19 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <romdnZu-TsTkEM7eRVn-pw@comcast.com>
Source record: 68760

Also, in addition to Ed's comment, #16 AWG will handle 1 KW with no problem.

AK

Rockinghorse Winner wrote:

> Hey. I'm newly licensed tech (studying for General). I looked up
> my questions in Handbook but could not find info. I am construct-
> ing a dipole antenna for 15 Meters from insulated 18 guage battery
> wire from the auto parts store. Since I will be going QRP for the
> first weeks or month, I am not worried about power handling
> capacity. But, will I have to upgrade my wire when I go to 50
> or 100 watts output? Also, I have a question about the insulated
> wire: is the insulation an impediment to the functioning of the
> antenna on HF? Thanks for being patient with a newbie.
>
> Rockinghorse Winner
> KI6AZS
>

2564. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 12:27:08 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <0857l15mdfh6ms7cnb1bvvk0j4s8cde2h1@4ax.com>
Source record: 68761

On Sun, 16 Oct 2005 23:45:42 GMT, Owen Duffy <owen@no.where> wrote:

>On Sun, 16 Oct 2005 16:21:31 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>>
>>Hmmm.
>>
>>Duffy (http://www.vk1od.net/G5RV/) says, see Cebik
>>(http://www.cebik.com/wire/g5rv.html)
>>
>>Cebik (http://www.cebik.com/wire/g5rv2.html) says, see Duffy
>>(http://www.vk1od.net/G5RV/)
>>
>>
>>I'm going around in circles. :-)
>
>Wes,
>
>A bit of mutual citation, bit obvious isn't it when there isn't some
>indirection like a few intermediate authors / articles!
>
>Nevertheless, LB Cebik deals more with patterns, and I deal more with
>the feed system, and of course the big picture means considering them
>both. I happily link to LB for people to read some useful info on the
>other aspect. Is that too cosy for you?

Clearly you have missed the humo(u)r that I intended.

>
>More importantly, if you found any faults with my analysis, let me
>know?

To be honest, I didn't look at it closely enough to do any such thing.
You always to seem to be quite thorough, so I would not expect any
glaring errors.

2565. FS: Azden PCS 5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 12:35:07 UTC
From: Steve <sahd@hotmail.com>
Message-ID: <DOadndVTUYEdB87eRVn-1Q@comcast.com>
Source record: 68762

I have from and estate sale a Azden PCS-5000 FM 2 meter Radio
work fine, No manual or original box.

Has Mounting bracket and mic.

Price is $90

Steve

2566. Re: More BPL...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 13:40:22 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <1ba7l1t78opgujf92ft4bbh3ieapqt7mcs@4ax.com>
Source record: 68763

On Mon, 17 Oct 2005 07:36:01 -0400, Amos Keag <A.K01@comcast.net>
wrote:

>ARRL has recently reported quite acceptable compatibility results in
>some BPL programs they have been testing.
>
>I forget the details, 68 years old and suffering from occasional 'old
>timers disease', but the info should be available from ARRL.
>
>It is possible that acceptable BPL technology has arrived!
>
>AK

Motorola has a system that uses the low voltage side of the pole
transformer; supposedly, it has less interferance problems.

bob
k5qwg

>
>Bob Miller wrote:
>> Dang, dang, dang...
>>
>> http://www.nytimes.com/2005/10/17/technology/17powerlines.html
>>
>> bob
>> k5qwg

2567. Re: More BPL...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 14:06:01 UTC
From: gsm@mendelson.com
Message-ID: <slrndl7bpl.9j0.gsm@cable.mendelson.com>
Source record: 68764

In article <romdnZi-TsRtEc7eRVn-pw@comcast.com>, Amos Keag wrote:
> ARRL has recently reported quite acceptable compatibility results in
> some BPL programs they have been testing.
>
> I forget the details, 68 years old and suffering from occasional 'old
> timers disease', but the info should be available from ARRL.
>
> It is possible that acceptable BPL technology has arrived!

No.

It's acceptable to the ARRL because they "notch out" the ham bands. This means that it interfers with everyone except ham radio operators so they wash their hands of it.

What will happen is as people complain about interference from BPL, operators will move the frequencies it uses to avoid the complaints. If they bother at all, an engineer will take a portable radio to the site, pull up the antenna and listen. If he does not hear English, he'll log that there is nothing to prevent them moving the notch there and that frequency will be used.

Since HF propigation changes from hour to hour and day to day, a frequency can still be in use but he wouldn't notice it. Eventually due to demand and no one complaining too loudly all frequencies in the HF band will be in use. By that time no one will listen to the few hams that complain.

My experience with a starting a Google boycott shows me that hams really don't care. The operator of one very popular site dedicate to ham radio and I discussed it and he said that they could not afford to eliminate the "Ads by Google" and gave me a polite rationalization of why they should do nothing.

This is called the boiled lobster effect. A lobster placed in a pot of cold water will be happy for the change. As the pot gets warmer the lobster gets drowsy. By the time the water gets hot enough to cook it, the lobster has been lulled into oblivion. That's what will happen with BPL.

It's already started.

Geoff.

--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (077)-424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838

You should have boycotted Google while you could, now Google supported
BPL is in action. Time is running out on worldwide radio communication.

2568. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 14:58:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <w_O4f.3053$tV6.1432@newssvr27.news.prodigy.net>
Source record: 68765

Fred W4JLE wrote:
> A G5RV would fit and meet your needs for all band operation with a tuner.

Hi Fred,
The standard G5RV is a pretty good antenna for 80m, 40m, 20m, & 12m.
Not bad on 15m, but the SWR on the coax for 30m, 17m, & 10m is
greater than 40:1 according to EZNEC.

I have optimized my G5RV for 40m, 17m, & 10m operation by making the
series balanced section 36 feet of 450 ohm ladder-line.
--
73, Cecil http://www.qsl.net/w5dxp

2569. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 15:28:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <EqP4f.1797$dO2.1407@newssvr29.news.prodigy.net>
Source record: 68766

Owen Duffy wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>Actually, upon closer examination, the definition of "myth"
>>proves the above is NOT a myth. It is not a traditional story.
>>It is not a parable allegory. It is not a popular belief.
>>
>>So, no Owen, it is not a myth.
>
> Cecil, this is the opposite to your stated YES opinion just three
> hours ago.

Yes, when I'm wrong about something, I change my mind. What do
you do when you are wrong about something?

Your "myth" is false but it doesn't rise to the definition of a
myth so *YOU WERE ABSOLUTELY WRONG TO CALL IT A MYTH*. I was wrong
but so were you, so we're even.

Get it? If not, close your eyes and concentrate on your legs.
:-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-)
--
73, Cecil http://www.qsl.net/w5dxp

2570. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 15:45:43 UTC
From: bob/wa2eaw <drbob92031@aol.com>
Message-ID: <1129563943.003115.235410@g47g2000cwa.googlegroups.com>
Source record: 68767

Rockinghorse Winner wrote:
> Hey. I'm newly licensed tech (studying for General). I looked up
> my questions in Handbook but could not find info. I am construct-
> ing a dipole antenna for 15 Meters from insulated 18 guage battery
> wire from the auto parts store. Since I will be going QRP for the
> first weeks or month, I am not worried about power handling
> capacity. But, will I have to upgrade my wire when I go to 50
> or 100 watts output? Also, I have a question about the insulated
> wire: is the insulation an impediment to the functioning of the
> antenna on HF? Thanks for being patient with a newbie.
>
> Rockinghorse Winner
> KI6AZS

The only thng that can alter the power output and freq. of the
insulated wire is; if water gets between the insulation and the wire.
As in rain water. Other wise "goforitQRP is great fun!!!
73 de Bob,WA2EAW...HW8 enthusiast with solar panals.

2571. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 15:53:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <dOP4f.1802$dO2.979@newssvr29.news.prodigy.net>
Source record: 68768

Owen Duffy wrote:
> The article is at http://www.vk1od.net/G5RV/ .

Owen, that's the best G5RV article I've ever seen. When
anyone has questions on the G5RV, I'm going to point them
to that article.

However, it does contain an error. You say:

" ... it ... does not have acceptable feed performance on
any WARC bands"

Yet your own SWR data shows a low SWR point at 25 MHz. The
G5RV actually has a lower SWR on the coax on 24.95 MHz
than it does on 21.3 MHz according to EZNEC.

Also, someone is preparing an article showing how length
selection of the "matching section" using relays can transform
the G5RV into a truly all-HF-band antenna requiring no tuner.
After that article is published, it would be nice if you
included that information in your article.
--
73, Cecil http://www.qsl.net/w5dxp

2572. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 16:05:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CZP4f.1803$dO2.860@newssvr29.news.prodigy.net>
Source record: 68769

Owen Duffy wrote:
> More importantly, if you found any faults with my analysis, let me
> know?

Just found one and replied to your posting. You and Cebik
seem to disagree about 12m where you say it won't work on
any WARC band and he says the impedance at the twinlead/coax
junction is "Resistive (90-100 Ohms)", i.e. SWR=2:1
--
73, Cecil http://www.qsl.net/w5dxp

2573. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 16:06:18 UTC
From: Dave <noone@nowhere.com>
Message-ID: <W-GdnXQG289mVs7eRVn-3w@crocker.com>
Source record: 68770

"Cecil Moore" <mycall@arrl.net> wrote in message
news:EqP4f.1797$dO2.1407@newssvr29.news.prodigy.net...
> Owen Duffy wrote:
>
>> Cecil Moore <mycall@arrl.net> wrote:
>>>Actually, upon closer examination, the definition of "myth"
>>>proves the above is NOT a myth. It is not a traditional story.
>>>It is not a parable allegory. It is not a popular belief.
>>>
>>>So, no Owen, it is not a myth.
>>
>> Cecil, this is the opposite to your stated YES opinion just three
>> hours ago.
>
> Yes, when I'm wrong about something, I change my mind. What do
> you do when you are wrong about something?

hey cecil, what happened??? worldradio pull your 'series' after only one
installment?

2574. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 16:27:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <VhQ4f.1807$dO2.720@newssvr29.news.prodigy.net>
Source record: 68771

Gene Fuller wrote:
> What has become quite clear from this lengthy thread and the experiments
> reported is that what you seek is impossible.

Not true. The question has been answered and it surprised me. Only
a half inch or so of ordinary 50 ohm coax is required to ensure the
SWR on that half inch of coax is the same as the SWR reported by
the SWR meter.

I didn't ask the original question in a very understandable
manner because I don't know of anyone who understood my original
question.

> And who would really care to know such a thing?

History:
Reg and I were arguing about a year ago whether two feet of RG-400
was long enough to ensure that the SWR reported by the SWR meter
was the same as the SWR on the RG-400. I said it was but had no
references that covered the subject so had no proof. There was
no answer to my question forthcoming from this newsgroup at the
time, so I asked the question over on sci.physics.electromag. I
received an answer on that newsgroup but, unfortunately, didn't
question the math. The answer was one foot of RG-213 but the answer
was off by a magnitude due to an accidental shift in a decimal point.
The correct answer was about an inch to reduce the undesired mode
by a factor of 1/e^5, i.e. 1/0.2=5 where 0.2 is the conductor
spacing, e.g. estimated for RG-213.

The error was caused by using 2" instead of 0.2" as the
conductor spacing.

I mistakenly ran with the one foot answer but, wrong as it was,
proved that my two feet of RG-400 was long enough. Now Dave has
set the record straight and caused the decimal point error to
be exposed by Owen and me at about the same time.

The correct answer is surprising to me. 1/2 inch of ordinary
50 ohm coax is enough to ensure a 50 ohm environment in that
1/2 inch piece of coax, i.e. to ensure Vfor/Ifor=Vref/Iref=50.

Nobody else may care, but I learned a lot and thank everyone
who contributed.
--
73, Cecil http://www.qsl.net/w5dxp

2575. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 16:39:25 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1tQ4f.17557$q1.4729@newsread3.news.atl.earthlink.net>
Source record: 68772

Hello Owen,

Seems both average-responding and trms meters use rectifiers, so a
square wave input with perfect symmetry should result in BOTH meters
reading the same: an amount equal to the peak square wave voltage. Am I
confused on this?

Chuck

Owen Duffy wrote:
> On Mon, 17 Oct 2005 03:09:11 GMT, Owen Duffy <owen@no.where> wrote:
>
>
>
>>So, theoretically:
>>- an ideal average responding meter should read (1-2/pi)% which is
>>36.3% or 8.8dB on an perfect square wave;
>
>
> I think this is close to the right answer, but for the wrong reason. I
> think it needs to be evaluated iteratively, and I get an answer closer
> to 34.3% or 9.3dB.
>
> Owen
> --

2576. Re: Mythbusters: V/I ratio is forced to Z0

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 17:07:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ATQ4f.3087$tV6.598@newssvr27.news.prodigy.net>
Source record: 68773

Dave wrote:
> hey cecil, what happened??? worldradio pull your 'series' after only one
> installment?

Katrina was a monster hurricane whose effects extended
all the way to California.
--
73, Cecil http://www.qsl.net/w5dxp

2577. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 17:08:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tam7l11ul4nfht0in4fojbv71p36b2vcpu@4ax.com>
Source record: 68774

On Mon, 17 Oct 2005 16:27:33 GMT, Cecil Moore <mycall@arrl.net> wrote:
>I didn't ask the original question in a very understandable manner
makes sense so far, and consistent too.
>because I don't know of anyone who understood my original question.
well -um- it's still consistent

2578. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 17:41:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dj0nno$e8p$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68775

"Cecil Moore" wrote

> I mistakenly ran with the one foot answer but, wrong as it was,
> proved that my two feet of RG-400 was long enough.

==========

Cecil, bearing in mind Lord Kelvin, can you say what the error in the measured value of the SWR, or the reflection coefficient, would be if the (sufficient) two feet of RG-400 was reduced to 1" inch.

Reg.

2579. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 18:33:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0qqffvl1@engnntp2.cig.mot.com>
Source record: 68580

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0510l1d9fbauafptjd41ul5l036qug97g6@4ax.com...
> On Fri, 14 Oct 2005 13:08:22 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >A meter, a pure 1kHz tone modulated signal generator and a 1kHz notch is
all
> >that is needed. What happens if you don't have a "real" RMS meter? I
don't
> >know.
>
> Hi Steve,
>
> You don't need a "real" RMS meter. The expressed requirement for a
> pure 1kHz tone provides the necessary sine wave shape such that it
> simply becomes a matter of scale calibration. If you had said a
> square wave 1KHz tone (nothing pure about that), then you would have
> to dig deep for a "real" RMS meter. That too, could be scaled, but I
> wouldn't count on it because it would be a rare amplifier chain that
> could faithfully keep it square - and the notch would inject it into
> the measurement as distortion and noise.
>
> 73's

Hi Richard,

I don'r know about that. For the un-notched signal, yes, where the
dominant component is the sine wave. However, not knowing how a non-RMS
meter may respond to the notched-out (predomanantly noise) signal, I'd thing
there is a possible cause for error compared to an RMS meter.
73, Steve, K,9.D;C'I

2580. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 18:42:00 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0r9ogbt1@engnntp2.cig.mot.com>
Source record: 68581

"Owen Duffy" <owen@no.where> wrote in message
news:sg40l11o0pfd08f8jlmtefpmeclb141km7@4ax.com...
> On Fri, 14 Oct 2005 13:08:22 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >Owen, (& crb)
> > Your words are contrary to the way we measured it (Motorola). ...
>
> It was a shabby description in my first post Steve, ...with considerable
clarification...

> Yes, I didn't mention that the 1KHz tone needs to be relatively low
> distortion. ...
> frequency of the tone is important as the notches
> in semi automatic instruments are typically +/10Hz or so, ...
> Owen

Not only that, but 1kHz is important because it is the standard and
usiang another freq, say 2kHz puts is on another part of the de-emphasis
curve and numbers'll change.
73, Steve, K,9.D;C'I

2581. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 18:49:49 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <hnS4f.2683$BZ5.1737@newssvr13.news.prodigy.com>
Source record: 68576

Reg Edwards wrote:
> "Cecil Moore" wrote
>>I mistakenly ran with the one foot answer but, wrong as it was,
>>proved that my two feet of RG-400 was long enough.
>
> Cecil, bearing in mind Lord Kelvin, can you say what the error in the
> measured value of the SWR, or the reflection coefficient, would be if
> the (sufficient) two feet of RG-400 was reduced to 1" inch.

According to Dave's calculations, 1" of 50 ohm coax will
result in a negligible error in the SWR on that 1" of coax.
--
73, Cecil http://www.qsl.net/w5dxp

2582. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 18:52:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0ms7l19namqav259vsnpgmrm1oc37e8vul@4ax.com>
Source record: 68577

On Mon, 17 Oct 2005 18:49:49 GMT, Cecil Moore <mycall@arrl.net> wrote:
>According to Dave's calculations, 1" of 50 ohm coax will
>result in a negligible error in the SWR on that 1" of coax.
Negligible for you, is brighter than the sun for everyone else.

No numbers, hmm?

2583. Mythbusters: The G5RV on 12m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 18:55:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <TsS4f.2685$BZ5.384@newssvr13.news.prodigy.com>
Source record: 68578

The myth: "Contrary to oft stated views, the Classic G5RV is not an all band antenna, it: does not have acceptable feed performance on any WARC bands;" Quoted from: http://www.vk1od.net/G5RV/

12m is a WARC band. The standard G5RV performs very well on 12m band. Therefore, the above statement is a myth. (Hey, this silly myth game is actually fun.) :-)
--
73, Cecil http://www.qsl.net/w5dxp

2584. Re: What is SINAD? RE:Qiock test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:01:41 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0sel$h33$1@engnntp2.cig.mot.com>
Source record: 68582

"Owen Duffy" <owen@no.where> wrote in message
news:fn46l1hajq1vpmcfulj87k38a1nt5vgdaf@4ax.com...
> On Mon, 17 Oct 2005 00:05:18 GMT, Owen Duffy <owen@no.where> wrote:
>
> This is seriously bad, replying to one's own post... but.
>
> It occurs to me a quick test to reveal whether a SINAD meter is RMS
> responding or average responding is to test it with a 1KHz square
> wave. I am not suggesting this as a cal procedure, just a test that is
> more sensitive to the meter response than noise testing.
>
> IIRC, the Taylor series coefficients for a square wave are: all even
> harmonics are 0, the others are 4/pi/n.
>
> So, theoretically:
> - an ideal average responding meter should read (1-2/pi)% which is
> 36.3% or 8.8dB on an perfect square wave;
> - an ideal RMS responding meter should read
> (1-(2^-0.5*4/PI())^2)^0.5*100% which is 43.5% or 7.23dB.
>
> Does the maths make sense?

Wait a minute here. You're percents and dB is confusing.

I don't know about the 1-2/pi. It's been about a year or so since I went through all this for that QST article using a serise resistor in the power line to figure out power supply (and rig) power consumption - unfortunately ignoring the pulsed nature of capacitor input power supply current, BUT...

I don't remember the analytical expressions for these quantities. I'll use the common numbers...

For the meter that responds to average (63% peak - I think this is 2/pi) , but shows RMS which is .707 of peak (1/root2), the ratio for average input to reading = 0.707/.63 . For this I get 2/(2* root2)

Average of a square wave is equal to the peak.

So a 1 volt (pk) square wave should measure 1.11 Volts on one of these (sine average responding, RMS displaying) meters and 1V on an rms meter.

I think I did that right?

73, Steve, K,9.D;C'I

2585. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:05:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0sm8hbc1@engnntp2.cig.mot.com>
Source record: 68583

Nope. See my previous post.

A square wave has an average equal to the RMS equal to the peak. It's just like DC.

The "older types" RESPOND to average of a SINE (63% of peak) but display the value for the RMS (71% of peak), so they have a 1.11 correction factor to get from average to RMS.

73, Steve, K,9.D;C'I

"chuck" <nospam@nospam.net> wrote in message
news:1tQ4f.17557$q1.4729@newsread3.news.atl.earthlink.net...
> Hello Owen,
>
> Seems both average-responding and trms meters use rectifiers, so a
> square wave input with perfect symmetry should result in BOTH meters
> reading the same: an amount equal to the peak square wave voltage. Am I
> confused on this?
>
> Chuck
>
> Owen Duffy wrote:
> > On Mon, 17 Oct 2005 03:09:11 GMT, Owen Duffy <owen@no.where> wrote:
> >
> >
> >
> >>So, theoretically:
> >>- an ideal average responding meter should read (1-2/pi)% which is
> >>36.3% or 8.8dB on an perfect square wave;
> >
> >
> > I think this is close to the right answer, but for the wrong reason. I
> > think it needs to be evaluated iteratively, and I get an answer closer
> > to 34.3% or 9.3dB.
> >
> > Owen
> > --

2586. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:13:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CJS4f.2690$BZ5.191@newssvr13.news.prodigy.com>
Source record: 68579

Richard Clark wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>According to Dave's calculations, 1" of 50 ohm coax will
>>result in a negligible error in the SWR on that 1" of coax.
>
> Negligible for you, is brighter than the sun for everyone else.

When reflections are completely canceled, appear to have
disappeared from everyone else's sight, and you say they are
brighter than the sun (for you), who am I to argue? You have
created your own unreality and everyone who understands the
physics of 1/4WL thin-films in this universe laughs at you
every time you post that "brighter than the sun" nonsense.
In your calculations, you superposed powers which is not
a valid thing to do and you apparently haven't even
comprehended the error of superposing powers.

> No numbers, hmm?

Dave provided the numbers. Check his posting. Simply stated:
The unwanted mode is attenuated by 1/e with each increment
of length equal to the spacing between the two conductors.
If the conductor spacing is 0.1", the unwanted mode is down
to 0.00000001% in one inch. That's a big surprise to me but
I don't see any reason not to believe it.
--
73, Cecil http://www.qsl.net/w5dxp

2587. Re: What is so special about '12 dB' SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:14:49 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0t79hob1@engnntp2.cig.mot.com>
Source record: 68584

Let me try my hand at this...

"crb" <anon@net.com> wrote in message news:diq2l9062i@enews4.newsguy.com...
> Still not sure what it is.
>
> I know I do a test at work where I put in a 3 KHz deviated, 1 KHz tone
> into the FM receiver port while probing an audio point going to the
> SINAD port on the test equipment.
> Increasing the input level makes for a larger SINAD value (which makes
> sense) Looking for at least 12 dB SINAD.
> What is so special about 12?
>
> Can't get my mind around it. Is the test tone 12 dB stronger than noise
> + distortion?

That's the simplest way to look at it. The desired signal (tone) is
(approximately) 12 dB above the junk.

> Is the the input value in dBm on the test equipment the sensitivity of
> the receiver at 12 dB SINAD.

Yep. That's it! The INPUT level, which gives this special output
condition, IS the sensitivity.

When measuring sensitivity, you need some kind of a reference point and the
signal to noise ratio at the receiver output (after a fashion) is what is
used here. . If I recall correctly, way back, AM receiver sensitivity was
the input signal (with some standard modulation) which produced the rater
power output (audio) with the volume cranked all the way up.

2588. Re: What is so special about '12 dB' SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:21:16 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0tjchup1@engnntp2.cig.mot.com>
Source record: 68587

"Fred McKenzie" <fmmck@aol.com> wrote in message
news:fmmck-1510051507490001@ac8a5544.ipt.aol.com...
> In article <diq2l9062i@enews4.newsguy.com>, crb <anon@net.com> wrote:
>
> >
> Years ago sensitivity might have been measured using a "20 dB quieting"
> method. You would inject an unmodulated carrier and increase its level
> until the noise output of the receiver decreased to one tenth of the
> no-signal value. [...snip...]
>
> Isn't SINAD an acronym for "Signal In the presence of Noise And
> Distortion"? I don't fully understand how it works, but assume there is a
> 1 KHz filter feeding one channel that is compared to an un-filtered
> channel.
> What I want to know is how to build one. Does anyone know of any SINAD
> construction articles?
> 73, Fred, K4DII

I for got about the 20 dBQ method. That's another reference for
sensitivity on FM receivers.

That's right Fred. It's explained up thread, but basically it is the ratio
of the un-notched audio to the notched audio. The "audio" is the result a
1kHz FM modulation at 60% of rated system deviation. Originally, for 5kc
ssytems dev., the 3kc deviation was 3.3kc. WHY is this at around 2/3
maximum? Well, in a well designed Tx, the deviation will get up to this
level before the deviation limiting clipper starts to clip and cause
distortion.

73, Steve

73, Steve, K,9.D;C'I

2589. Re: can I / can't I ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:22:08 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0tl0$i3r$1@engnntp2.cig.mot.com>
Source record: 68588

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dirroabcv1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> > Any reason I shouldn't use a choke balun out of my tuner to feed
> ladderline
> > up to a dipole?
>
> ==========
>
> There's no reason whatsoever. In fact it is the obvious thing to do.
>
> The choke allows you to connect an unbalanced tuner to any balanced
> feedline via the choke.
>
> A balanced tuner is entirely unnecessary in almost all circumstances.
>
> The choke is simply a pair of wires wound together around a ferrite
> toroid. Or it is a coaxial pair wound round a toroid (which for
> various reasons is slightly less efficient and is physically less
> convenient.) So the pair of parallel wires is the better form of
> construction.
>
> The choke behaves as a short length of transmission line of the same
> length as the pair of wires wound on the choke. Which is very short
> when a ferrite toroid is used.
>
> Because the length of line is an impedance transformer it transforms
> the input impedance of the transmission line to somewhat different
> values especially at the higher frequencies. At the lower frequencies
> it may just as well not be there.
>
> Which means that the tuner L and C settings are different to those
> which occur when the choke is not there. But often, when the choke is
> in use, the tuner finds it easier to match the line and antenna to the
> transmitter. Which is the sole purpose of the tuner.
>
> The number of turns wound on the choke must provide an inductance and
> a reactance of about 4 or 5 times the load resistance required by the
> transmitter, usually 50 ohms, at the lowest frequency of operation.
> This depends on the permeability of the ferrite core material.
>
> At the higher frequencies it is best that the length of line wound on
> the torroid should not exceed 1/8th of a wavelength at the free-space
> velocity. This is usually not too difficult to manage.

>
> To simplify, get a 2" outside diameter ferrite ring, of HF grade
> marerial, wind on 14 or 18 turns, and get on with it.
>
> A choke balun is the most simple of radio components to construct, yet
> its behaviour is amongst the most complicated of components to
> analyse.
> ----
> Reg, G4FGQ.
>
>

2590. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:32:12 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0u7siht1@engnntp2.cig.mot.com>
Source record: 68589

No time to read all the other posts, but in short...

You are proposing a slightly shorter than 1/2 wave dipole for 75. This should be no problem as it will have a little capacitive reactance and a tuner should handle it.

The G5RV is pretty much the same thing, except it has some feed line gymnastics to get a "fairly good" (50 ohm) match on many bands. This is nothing more than an "antenna tuner in feed line" which doesn't require a knob rather than one in a box which does. (:-)

My 40M dipole works on 30M as a slightly LONG dipole. [[It also works on 75 as a really short one, but not too good]]

73, Steve, K,9.D;C'I

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message news:Xns96F1CA3A2E987spectrumhogstarbandn@207.106.93.175...
>).
> >
> > It turns out that it becomes quite challenging to implement an
> > efficient feed system (especially over a wide frequency range) where
> > the dipole is less than about 35% of a wavelength at the lowest
> > frequency.
>
> Yes, my 100 foot length would be about 42% ofthe wavelength of my
> lowest operating band, 75M.... perhaps it wouldn't be any problem for my
> cheap MFJ balanced line tuner to feed it?
>
> I appreciate your comments. I'm off shortly to study the website you
> pointed me to. Thanks.
>
>
> Ed K7AAT
>

2591. Focused waves WAS: Non Radiative Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:47:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj0v3l$j49$1@engnntp2.cig.mot.com>
Source record: 68593

All just symmantics.

HOWEVER...

OT, but... For something that sounds too good to be true search on "Woody"
Elwood G. Norris. I researched this and he has something here. Not
previously unknown, just previously unused.

HyperSonicTM Sound by Elwood G. Norris 6/07/97

73, Steve, K.9.D;C'I

"Asimov" <Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote in message
news:MSGID_1=3a167=2f133.0_4352c300@fidonet.org...
> Hi,
>
> Please, somebody explain the following to me:
>
> / What will be the next great invention on the order of the laser? We
> don't know, but clever new ideas keep coming along. The
> second-place award in the technological innovation competition went
> to Marin Soljacic (MIT) for his concept of wireless, non-radiative
> energy transmission. Just as in the quantum case in which the
> Schrodinger equation allows for a wave trapped in a box to tunnel
> out, so Maxwell's equations allow for the leakage of electromagnetic
> energy from an electromagnetic resonance object. If another such
> object were placed not far from the first one, and the resonant
> frequencies of both were the same, then the energy could be
> transferred between them with very little energy lost to other
> objects in the nearby environmental that do not share the same
> resonant frequency. The transmitted energy, although
> electromagnetic in nature, would not be referred to as "radiation"
> since it is bound to the resonant objects. It is rather an example
> of "near-field" physics. Soljacic avoids words like "antenna,"
> since the process does not involve broadcasts of energy in the usual
> sense. In contrast, the vast majority of energy radiated by
> antennas is typically wasted and lost into free space, while only a
> small portion is picked up by the eventual receivers. Instead,
> Soljacic uses terms like "source" and "drain" in analogy with
> transistors to describe the movement of energy. An exemplary setup
> might consist of a transmitter in a ceiling and devices in that room
> (e.g robots, or computers) being powered wirelessly by this energy.
> /
>
> A*s*i*m*o*v
>

>
> ... Light at the end of the tunnel may be an oncoming train!
>

2592. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 19:50:10 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <umv7l1dff2hr2931ovrieh661fdg201dsu@4ax.com>
Source record: 68585

On Mon, 17 Oct 2005 16:39:25 GMT, chuck <nospam@nospam.net> wrote:

>Hello Owen,
>
>Seems both average-responding and trms meters use rectifiers, so a
>square wave input with perfect symmetry should result in BOTH meters
>reading the same: an amount equal to the peak square wave voltage. Am I
>confused on this?

Leaving aside the rectifier point which is arguable:

If we accept that the RMS responding instrument reads correctly on all types of waveforms, the issue is with the average responding instrument.

The average responding instrument is (usually) calibrated for the form factor of a sine wave, and its scaling in RMS is only valid for waveforms with the same form factor.

There are two cases to consider, the square wave, and the square wave with the fundamental removed. The form factor of both are different to the form factor of a sine wave, and more importantly to each other, so the average responding meter does not provide an accurate ratio of the (true) power of each wave.

Does that make sense?

Owen
--

2593. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:06:16 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <YuT4f.29630$Io.26244@clgrps13>
Source record: 68586

"chuck" <nospam@nospam.net> wrote in message
news:22x4f.15263$vw6.6978@newsread1.news.atl.earthlink.net...
> Thanks for the info, Frank.
>
> Actually, the RSS125 on the site doesn't contain the procedure, but
> RSS181, also available at that site, does.
>
> FWIW, the procedure is basically what has been discussed, except that
> the signal generator output to be recorded as the receiver's sensitivity
> is that level which produces a 12 dB SINAD at 50% of rated audio output!
> Probably a more realistic test than allowing the AF stage to operate at
> a low-distortion level of something like 1% of rated output.
>
> 73,
>
> Chuck
> NT3G

Thanks Chuck, forgot all about RSS 181, even though I have type approval tested countless SSB transceivers to that specification. Interesting that it has not been updated since 1971. Note that he sensitivity is defined as that input that will produce 12 dB SINAD or that input which will produce at least 50% of the rated audio output. The fact is that most of the testing that I did was measured at full audio output, just below the threshold of audio clipping. I do not recall any unit where the receiver gain was a factor in sensitivity. Also note they still refer to "A3j", and not J3E, etc. All these old specifications are based on tube designs. With TDA2002 type audio chips, you could typically get 5W out at < 1% distortion. It was so easy to drop in an extra IF stage if you could not meet the 50% min audio output at threshold sensitivity.

73,

Frank

2594. Re: More BPL...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:17:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj10sl$ke5$1@engnntp2.cig.mot.com>
Source record: 68597

"Geoffrey S. Mendelson" <gsm@mendelson.com> wrote in message
news:slrndl7bpl.9j0.gsm@cable.mendelson.com...
> In article <romdnZi-TsRtEc7eRVn-pw@comcast.com>, Amos Keag wrote:
> > ARRL has recently reported quite acceptable compatibility results in
> > some BPL programs they have been testing.
> >
> > I forget the details, 68 years old and suffering from occasional 'old
> > timers disease', but the info should be available from ARRL.
> > It is possible that acceptable BPL technology has arrived!
>
> No.
> It's acceptable to the ARRL ...

Geoff.,

Your words not theirs. "They" (I'm in contact with "them") have
reservations and are aware of the outside-notch problem.
The advantage of this system (I'm not saying it's the solution or even a
great idea, but an attempt to provide an alternative in light of the
relentless push to do it regardless of interference potential) is that is
takes less energy to get from the pole to the house than down the whole
medium voltage power grid. The HomePlug(tm) protocol will be / is in homes
already, so even without this style of BPL, the garbage'll be in the air --
and not necessarily with the limited protection mechanisims (for HF users)in
this system.. It's an attempt to find an approach to satisfy both sides,
which no one else is attempting to do, including the his Ignorance at the
top.

> ...because they "notch out" the ham bands. This
> means that it interfers with everyone except ham radio operators so they
> wash their hands of it. ...
> ... If they bother at all, an engineer will take a portable radio to
> the site, pull up the antenna and listen.

There are much better solutions in the works... Again, I'm not a
proponent, just saying there are those who are trying to minimize the
problems with an, unfortunately, inevitable thing.

The thing here is that Motorola at least kept in contact with one of the
groups opposing BPL rather than just ramming it into a power grid and
totally iognoring all reason/physics, even appropriate complaints.

> ...If he does not hear English,
> he'll log that there is nothing to prevent them moving the notch
> there and that frequency will be used.

You mean if he DOES here Engilsh he will move the notch there and
the frequency will NOT be used? The notches go where the turned-off
carriers are so the residual energy gets attenuated even more.

No argument with the rest of this. BPL is an unfortunately ignorant
approach to a non existent problem.

Interesting that the article ignores the foreign systems which were shut
down, but then they were only given the party line...

'nuf said...

73, Steve, K,9.D'C;I
Yes, you guessed who I work for and what I have knowledge of...

> This is called the boiled lobster effect.

I thought it was a Frog ? ! and I call it de-regulation.

2595. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:19:40 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <hd08l1phnj7arn9b43mac70bdgl2vad00j@4ax.com>
Source record: 68590

On Mon, 17 Oct 2005 16:05:54 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> More importantly, if you found any faults with my analysis, let me
>> know?
>
>Just found one and replied to your posting. You and Cebik
>seem to disagree about 12m where you say it won't work on
>any WARC band and he says the impedance at the twinlead/coax
>junction is "Resistive (90-100 Ohms)", i.e. SWR=2:1

No, I said:

"Contrary to oft stated views, the Classic G5RV is not an all band
antenna, it:
* does not have acceptable feed performance on 1.8MHz;
* does not have acceptable feed performance on any WARC bands;
* does not have acceptable feed performance on 28MHz."

Two main factors were in my mind in determining whether performance
was "acceptable", they were:
- the magnitude of the losses on this particular model in-band for the
band in question; and
- whether the losses changed rapidly on adjacent frequencies, such
that installations with small differences (eg height, earth parameters
etc) were not assured of acceptable losses.

For example, it is possible to tweak a G5RV a little to minimise the
feed losses on 10.1MHz, and they can be low enough, but it is a very
sharp notch and likely to be not realisable with seasonal changes in
soil moisture etc.

I have reviewed the specific case you mention about 25MHz. Two of the
feed arrangments are marginally under the criteria that I set, but
they are under it and for consistency they should have been included
in the "acceptable" category. Omitting them was an error on my part.

I have ammended the article accordingly Cecil, thanks for the
feedback.

It is important to keep in mind that the article is analysis of a set
of common feed configurations of a dipole at a specific height over
specific ground, and that the results may vary in other
configurations.

Owen
--

2596. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:20:53 UTC
From: chuck <nospam@nospam.net>
Message-ID: <FIT4f.17658$q1.5648@newsread3.news.atl.earthlink.net>
Source record: 68591

You're correct, of course, Steve. I was thinking the average-responding meter was calibrated to display average levels, but it is not: it is calibrated to give the rms value of a true sine wave with that average value. So the only way to measure the average value of a non-sinusoidal ac signal is to use an average-responding meter and correct the displayed reading as you have noted. Not relevant to the SINAD discussion but interesting.

Thanks for the clarification.

Chuck

Steve Nosko wrote:
> Nope. See my previous post.
>
>
> A square wave has an average equal to the RMS equal to the peak. It's just
> like DC.
>
> The "older types" RESPOND to average of a SINE (63% of peak) but display the
> value for the RMS (71% of peak), so they have a 1.11 correction factor to
> get from average to RMS.
>
> 73, Steve, K,9.D;C'I
>
>
> "chuck" <nospam@nospam.net> wrote in message
> news:1tQ4f.17557$q1.4729@newsread3.news.atl.earthlink.net...
>
>>Hello Owen,
>>
>>Seems both average-responding and trms meters use rectifiers, so a
>>square wave input with perfect symmetry should result in BOTH meters
>>reading the same: an amount equal to the peak square wave voltage. Am I
>>confused on this?
>>
>>Chuck
>>
>>Owen Duffy wrote:
>>
>>>On Mon, 17 Oct 2005 03:09:11 GMT, Owen Duffy <owen@no.where> wrote:
>>>
>>>
>>>
>>>

>>>>So, theoretically:
>>>>- an ideal average responding meter should read (1-2/pi)% which is
>>>>36.3% or 8.8dB on an perfect square wave;
>>>
>>>
>>>I think this is close to the right answer, but for the wrong reason. I
>>>think it needs to be evaluated iteratively, and I get an answer closer
>>>to 34.3% or 9.3dB.
>>>
>>>Owen
>>>--
>
>
>

2597. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:23:17 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj117l$ko8$1@engnntp2.cig.mot.com>
Source record: 68599

Ditto. No and no.

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96F1CB9D1F2ACspectrumhogstarbandn@207.106.93.175...
> > ...a dipole antenna for 15 Meters from insulated 18 guage battery
> > wire ...
> > But, will I have to upgrade my wire when I go to 50/100 watts output?

NO

> > ...is the insulation an impediment to the functioning

NO

Put it up. For a 40M dipole, I have insulated 20 guage (with the ends
threaded through the end insulators then doubled back and wrapped around the
antenns for about three feet, for easy length adjusting if needed).

73, & Enjoy Steve, K.9,D'C;I

2598. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:25:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <cr18l1pgum9r59u061a3dp1thihkgat1cl@4ax.com>
Source record: 68592

On Mon, 17 Oct 2005 05:27:08 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>>A bit of mutual citation, bit obvious isn't it when there isn't some
>>indirection like a few intermediate authors / articles!
>>
...
>
>Clearly you have missed the humo(u)r that I intended.
>

Wes, I did take it as light hearted, and hence my response above.

I am not an academic, nor do I have the experience of that university environment, but I think there is probably more than a little humour to be had from examples of self-citation, mutual-citation, self-citation indirectly by n levels (more subtle than mutual citation)... etc.

Thing that had my head spinning was trying to follow the logic (I use the term loosely of course) of some recent threads.

Owen
--

2599. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:36:21 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj1205$l8t$1@engnntp2.cig.mot.com>
Source record: 68600

"bob/wa2eaw" <drbob92031@aol.com> wrote in message
news:1129563943.003115.235410@g47g2000cwa.googlegroups.com...
>
> Rockinghorse Winner wrote:
> > ...is the insulation an impediment to the functioning of the
> > antenna on HF? Thanks for being patient with a newbie.
> >Rockinghorse Winner KI6AZS
>
> The only thng that can alter the power output and freq. of the
> insulated wire is; if water gets between the insulation and the wire.
> As in rain water. Other wise "goforitQRP is great fun!!!
> 73 de Bob,WA2EAW...HW8 enthusiast with solar panals.
>

Bob,
Hmmm. I don't think this is a worry either. I have had no protection (nor perceive a need) for this where the insulation ends at the feed point nor at the ends that are just cut (which wrap back on the antenna for about 3 feet for adjusting length. It is stranded wire with lots of opportunity for water egress. The insulation is very brittle after 6 years in the UV & other outdoor environment. I don't see what the problem mechanism could be; a bare wire gets really wet.
What are you thinking?

As a side note, and unrelated situation, aircraft wiring can burst into flames with help from water (Believe it or not) and insulation cracks, but in bundles of wire and where there is significant 400 cycle power distribution energy _between_ wires in a tight cabling bundle, not a single hanging wire.

73, Steve, K,9'D;C.I

2600. Re: What is SINAD? RE:Qiock test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:36:58 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3i28l1hk0af20tfkim7k3hmkss5kl5rtn8@4ax.com>
Source record: 68594

On Mon, 17 Oct 2005 14:01:41 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
>"Owen Duffy" <owen@no.where> wrote in message
>news:fn46l1hajq1vpmcfulj87k38a1nt5vgdaf@4ax.com...
>> On Mon, 17 Oct 2005 00:05:18 GMT, Owen Duffy <owen@no.where> wrote:
>>

>> - an ideal average responding meter should read (1-2/pi)% which is
>> 36.3% or 8.8dB on an perfect square wave;

In another post (1ac6l1lkejh84je8qllbhsj1i1r85d7h4e@4ax.com) I have
identified that that expression is wrong.

The correct ratios are closer to 34.3% or 9.3dB.

>
>Wait a minute here. You're percents and dB is confusing.

Many Distortion analysers are calibrated in % where the % figure is a
voltage ratio.

>
>I don't know about the 1-2/pi. It's been about a year or so since I went

It is wrong, see above.

>through all this for that QST article using a serise resistor in the power
>line to figure out power supply (and rig) power consumption - unfortunately
>ignoring the pulsed nature of capacitor input power supply current,
> BUT...
>
>I don't remember the analytical expressions for these quantities. I'll use
>the common numbers...
>
>For the meter that responds to average (63% peak - I think this is 2/pi) ,
>but shows RMS which is .707 of peak (1/root2), the ratio for average input
>to reading = 0.707/.63 . For this I get 2/(2* root2)
>
>Average of a square wave is equal to the peak.
>
>So a 1 volt (pk) square wave should measure 1.11 Volts on one of these (sine
>average responding, RMS displaying) meters and 1V on an rms meter.
>
>I think I did that right?

The problem is that while the RMS meter provides a true power indication on the square wave, and the filtered square wave (ie without fundamental), the average responding meter does not give an accurate power ratio because the form factors (RMS/AVG) of the two waveforms is different.

Owen
--

2601. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:40:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <2%T4f.17142$6e1.8319@newssvr14.news.prodigy.com>
Source record: 68595

Owen Duffy wrote:
> I have ammended the article accordingly Cecil, thanks for the
> feedback.

So one more myth is busted. You had me thinking that I was the
only one capable of making a mistake.
--
73, Cecil http://www.qsl.net/w5dxp

2602. Help identifying tiny coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:46:59 UTC
From: edard <edard@linuxmail.DOT.org>
Message-ID: <11l83bm3ihoavea@corp.supernews.com>
Source record: 68596

I came across a spool of some very small coax in the hopes that it could be used in 802.11 but now not a clue of what it is. It is on a Raychem reel. The Description tag says 5028A1318-0 440086. As best I can measure it is 0.075 inch OD, 0.055 braid diameter, 0.040 insulation OD and the center conductor measures 0.015. The outer jacket is black and the inner insulation is tan in color. The braid is very dense fine wire as is the center conductor. It looks and feels like high quality stuff. Any help or even a good guess appreciated.

2603. Re: rf-systems WFL antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 20:48:52 UTC
From: johan aeq <pe1aeq@amsat.og>
Message-ID: <3640f$43540fc8$52ad139c$8573@news.versatel.nl>
Source record: 68598

Let's hope someone dismantles one to see what is inside....
<jgboyles@aol.com> schreef in bericht
news:1129499219.974415.312130@f14g2000cwb.googlegroups.com...
>
> johan aeq wrote:
> > Hello,
> > can you explain this antenna mentioned on this site?
> > http://www.universal-radio.com/catalog/hamwire/2039.html
> > A almost flat swr response with such a small antenna must be a folded
T2FD
> > antenna.
> > Is there someone who has tested this antenna?
> > Greetings Johan PE1AEQ
> Hi Johan, I think you have the right idea. A broadband power
> limited small antenna suggests resistive loading at the feedpoint. It
> will work, just not very well until you get above the frequency at
> which the wire portion starts having some efficiency. As a guess, this
> one might do OK above 14 MHZ.
> A magnetic loop generally refers to a small loop with a very narrow
> bandwith, tuned by a variable capacitor. The claim that this is a
> magnetic loop on low bands does not hold up because of the broad band
> claim.
> Gary N4AST
>

2604. Re: Help identifying tiny coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 21:34:05 UTC
From: Dave <noone@nowhere.com>
Message-ID: <oZOdnWvxa4dShcneRVn-vw@crocker.com>
Source record: 68601

a quick visit to raychem.com finds this:
http://catalog.tycoelectronics.com/TE/bin/TE.Connect?C=1&M=BYPN&PID=139441&PN=5028A1318-0&LG=1&I=13

"edard" <edard@linuxmail.DOT.org> wrote in message
news:11l83bm3ihoavea@corp.supernews.com...
>I came across a spool of some very small coax in the hopes that it could be
> used in 802.11 but now not a clue of what it is. It is on a Raychem reel.
> The Description tag says 5028A1318-0 440086. As best I can measure it is
> 0.075 inch OD, 0.055 braid diameter, 0.040 insulation OD and the center
> conductor measures 0.015. The outer jacket is black and the inner
> insulation is tan in color. The braid is very dense fine wire as is the
> center conductor. It looks and feels like high quality stuff. Any help
> or
> even a good guess appreciated.

2605. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 21:34:47 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ml58l1l6l3abi95g4jjn65cmith08dunkb@4ax.com>
Source record: 68602

On 16 Oct 2005 19:35:05 -0700, "Rockinghorse Winner"
<rockinghorse@phreaker.net> wrote:

>or 100 watts output? Also, I have a question about the insulated
>wire: is the insulation an impediment to the functioning of the
>antenna on HF? Thanks for being patient with a newbie.

Don't overlook the fact that in most cases, insulation increases the wind resistance and increases the mass (weight) of wire antennas, so reducing the survival in strong winds, while not improving the radiation performance.

Further, the insulation will degrade more quickly than bare copper in all but the most corrosive environments.

Don't change your plans now... but something to keep in mind for the future, especially for long spans.

You might ask, if insulated stranded annealed copper is a poor choice compared to say single core hard draw copper or Copperweld, why do so many people use insulated stranded annealed copper? I guess it comes down to availability, and that amateurs seem to not design wire antennas to survive high winds.

Owen
--

2606. Re: Help identifying tiny coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 21:45:06 UTC
From: edard <edard@linuxmail.DOT.org>
Message-ID: <11l86odas2co727@corp.supernews.com>
Source record: 68603

Dave wrote:

> a quick visit to raychem.com finds this:
>
http://catalog.tycoelectronics.com/TE/bin/TE.Connect?C=1&M=BYPN&PID=139441&PN=5028A1318-0&LG=1&I=13
>
>
Wow Dave thanks. Who would have thought of trying Raychem? Duhhh

2607. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-17 23:58:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8ke8l15ttrohg6ce734mh4odb1559fbpbv@4ax.com>
Source record: 68604

On Mon, 17 Oct 2005 19:13:38 GMT, Cecil Moore <mycall@arrl.net> wrote:
>everyone who understands the
>physics of 1/4WL thin-films in this universe laughs at you
>every time you post that "brighter than the sun" nonsense.
Just how big IS your universe?

2608. Re: Dumb Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 00:32:14 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <ioX4f.1913$dO2.1170@newssvr29.news.prodigy.net>
Source record: 68605

The 18 gauge shouldn't present a problem, for Power, nor Loss.
It , however may present a problem, in the winter, if you get
ice loading (can streatch, and also break, if has enough stress
(extra weight) applied to it) , but, as far as qrp, on the low
bands, you may ve amazed at the dx you can pull in , even with
power in the milliwatt range, and, with a couple of the older
(10 watt) rigs, like the ft301-s, or the ft-7 (and kenwood,
Icom, and Ten-tec made them, too!), can work reliably several
hundred miles on 75-40 meters, and THOUSANDS on 20-15, and 10!
Have fun-- Jim NN7K

Steve Nosko wrote:
> Ditto. No and no.
>
>
> "Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
> news:Xns96F1CB9D1F2ACspectrumhogstarbandn@207.106.93.175...
>
>>>...a dipole antenna for 15 Meters from insulated 18 guage battery
>>>wire ...
>>>But, will I have to upgrade my wire when I go to 50/100 watts output?
>
>
> NO
>
>
>>>...is the insulation an impediment to the functioning
>
>
> NO
>
> Put it up. For a 40M dipole, I have insulated 20 guage (with the ends
> threaded through the end insulators then doubled back and wrapped around the
> antenns for about three feet, for easy length adjusting if needed).
>
> 73, & Enjoy Steve, K.9,D'C;I
>
>

2609. Re: More BPL...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 00:36:03 UTC
From: gsm@mendelson.com
Message-ID: <slrndl8gr0.go6.gsm@cable.mendelson.com>
Source record: 68606

In article <dj10sl$ke5$1@engnntp2.cig.mot.com>, Steve Nosko wrote:
> There are much better solutions in the works... Again, I'm not a
> proponent, just saying there are those who are trying to minimize the
> problems with an, unfortunately, inevitable thing.

I disagree with that. It's inevitable because Google was one of three companies that invested $100,000,000 in Current Communications. If EVERY HAM boycotted Google and made sure they and their advertisers knew it, they would drop it like a hot potato.

Google exists because of their Adsense product. If advertising with adsense lost customers instead of gaining them, then advertisers would look for alternate ways to spend their money. If they did that, Google would not continue their support of BPL.

> The thing here is that Motorola at least kept in contact with one of the
> groups opposing BPL rather than just ramming it into a power grid and
> totally iognoring all reason/physics, even appropriate complaints.

I have not seen the technical specs of the Motorola system so I can't comment on it, but the rumor is that it does work and does not interfere.

> You mean if he DOES here Engilsh he will move the notch there and
> the frequency will NOT be used? The notches go where the turned-off
> carriers are so the residual energy gets attenuated even more.

Yes. If here he hears English, he will assume there is someone who can point to his power lines and show there is a problem. If he hears another language, he will assume that the people whom he will interfere with are too far away to walk up to his wires and show they are a problem.

> No argument with the rest of this. BPL is an unfortunately ignorant
> approach to a non existent problem.

IHMO exactly.

>
> Interesting that the article ignores the foreign systems which were shut
> down, but then they were only given the party line...

Yes, it has been a dismal failure just about everywhere it has been tested. It causes too much interference and works so poorly that no one could afford it without a big sum of money up front. If they make $10 a month profit from each customer it will take a long time and a lot of users to get back $100,000,000.

>> This is called the boiled lobster effect.
>

> I thought it was a Frog ? ! and I call it de-regulation.

Same thing, but more people know a boiled lobster than boiled frog.
To me it does not matter, they are both nonkosher. :-)

Geoff.

--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (077)-424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
You should have boycotted Google while you could, now Google supported
BPL is in action. Time is running out on worldwide radio communication.

2610. wire antenna masts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 01:34:07 UTC
From: esj@harvee.org
Message-ID: <1129599247.318700.164920@g44g2000cwa.googlegroups.com>
Source record: 68607

looking to the best option for putting up low band wire antennas. I'd like to put up something for 80 m with a bit of gain headed towards Europe etc.. I'm considering a half square antenna. But doing the math for the element says I would need something like 70-80 foot masts and I'm trying to figure out how to make that happen without full-scale antenna towers which would freak out the neighbors.

I think another option might be to do linear loading on the vertical elements of a half square and only go to about 45 foot for the tower elements. Problem being that most of the fiberglass masts I've seen only go to about 35 to 40 feet and some of them get pretty whippy (mfj)

another possibility I'm considering if I can build a fairly inexpensive metal mast to 66 feet (plus 10 feet off ground) is the Spitfire array http://www.yccc.org/Articles/Spitfire/sld003.htm

again suggestions for how to get 66 feet of metal up in the air would be interesting. By the way, I do have access to 3 inch aluminum irrigation tubing. Most of it has been broken into 25 foot lengths so if that would be useful, advice on how to couple shorter pieces together for good electrical and mechanical connections would be welcome.

I would appreciate any suggestions. also, don't worry about e-mailing me directly in addition to posting to the net. I frequently forget about web oriented access until weeks later whereas e-mail is in my face.

--- eric (ka1eec)

speech recognition in use, it makes mistakes, I correct some.

2611. Re: wire antenna masts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 02:51:18 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndl8op7.2vir.bit-bucket@shell.config.com>
Source record: 68608

On 17 Oct 2005 18:34:07 -0700, esj@harvee.org wrote:
> looking to the best option for putting up low band wire antennas.

See this November's QST.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

2612. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 02:57:28 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F2CB09A69EDspectrumhogstarbandn@207.106.92.175>
Source record: 68609

>
> You are proposing a slightly shorter than 1/2 wave dipole for 75.
> This should be no problem as it will have a little capacitive
> reactance and a tuner should handle it.

Thank you, Steve. This was my main concern.

> The G5RV is pretty much the same thing, except it has some feed line
> gymnastics to get a "fairly good" (50 ohm) match on many bands. This
> is nothing more than an "antenna tuner in feed line" which doesn't
> require a knob rather than one in a box which does. (:-)

I have pretty much decided to just feed ladder line with a balanced
tuner rather than make a G5RV. This should give me more flexibility.

Ed

2613. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 02:59:32 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F2CB63922spectrumhogstarbandn@207.106.92.175>
Source record: 68610

>
> That's a very good length for 40m, 17m, & 10m. You can analyze the
> antenna yourself by downloading the free demo version of EZNEC
> from www.eznec.com. If you want, I'll send you a model of your
> antenna so all you have to do is click the mouse.

Thanks for the offer, Cecil, but at this time I will decline. I plan on just putting up as much wire as I can effectively mount between the two trees, about 100 feet, and just feed it at the center with ladder line. A new balanced tuner will tune the whole thing. I expect this to give me a bit more flexibility than the G5RV would.

Ed K7AAT

2614. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 03:18:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jQZ4f.1942$dO2.213@newssvr29.news.prodigy.net>
Source record: 68611

Ed wrote:
> Thanks for the offer, Cecil, but at this time I will decline. I plan
> on just putting up as much wire as I can effectively mount between the
> two trees, about 100 feet, and just feed it at the center with ladder
> line.

That's the antenna I was offering to model for you. You will,
no doubt, run into some pitfalls, for instance an impedance
of 8 ohms or 4000 ohms that your tuner may not be able to handle.
EZNEC can predict such problems before they bite you.

As a data point, the MFJ-974 gives you a matching range of 12-2000
Ohms.

EZNEC can also predict your radiation patterns which are important
on the high bands if you want to hit certain areas of the world.
Rotating my dipole in AZ by 15 degrees made a lot of difference.
--
73, Cecil http://www.qsl.net/w5dxp

2615. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 03:46:42 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <sqp8l1hq26kicok47f5rgevv70apnkv3go@4ax.com>
Source record: 68612

On Mon, 17 Oct 2005 05:09:06 GMT, Owen Duffy <owen@no.where> wrote:

>On Mon, 17 Oct 2005 03:09:11 GMT, Owen Duffy <owen@no.where> wrote:
>
>
>>So, theoretically:
>>- an ideal average responding meter should read (1-2/pi)% which is
>>36.3% or 8.8dB on an perfect square wave;
>
>I think this is close to the right answer, but for the wrong reason. I
>think it needs to be evaluated iteratively, and I get an answer closer
>to 34.3% or 9.3dB.

An analytical approach to solution of the problem.

A unit height square wave has a fundamental component of amplitude
4/pi.

To find the area under the filtered curve, I think we are looking for
the integral from 0 to pi/2 of absolute(1-4/pi*sin(theta))). I will
divide the integral at theta=asin(pi/4) to deal with the absolute
function since the problem function is positive from 0 to asin(pi/4)
and negative from asin(pi/4) to pi/2.

Here is some Perl to evaluate the ratio:

```
#find the zero crossing point
$theta=asin($pi/4);
#find the area under the curve
$area=$theta-4/$pi*(-cos($theta)+cos(0)); #first part
$area+=4/$pi*(-cos($pi/2)+cos($theta))-($pi/2-$theta); #second part
#divide by area under unit square wave
$ratio=$area/($pi/2);
print "Average response ratio is $ratio \n";
```

And the answer is 0.3430678471... or 9.3dB. It is about 9.4dB if you
only consider the harmonics up to 50KHz.

One of you mathematical whizzes might know a better way to put this!

Owen
--

2616. Re: What is a 50-ohm environment. ???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 03:48:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4g_4f.1944$dO2.953@newssvr29.news.prodigy.net>
Source record: 68613

Richard Clark wrote:
> Just how big IS your universe?

A little less than 2,000,000,000,000,000,000,000,000,000,000,000,000
cubic light years.
--
73, Cecil http://www.qsl.net/w5dxp

2617. Re: EZNEC model of sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 05:54:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11l93fpt7q8tsd9@corp.supernews.com>
Source record: 68614

Sorry I missed this -- I've been out of the country and generally unable to access the newsgroups. But it looks like it got resolved satisfactorily. Anyone with a specific question about EZNEC modeling is welcome and encouraged to contact me directly (after making an honest effort at finding the answer in the manual, of course).

Roy Lewallen, W7EL

2618. Re: Help identifying tiny coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 06:03:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11l940uof4kb6c2@corp.supernews.com>
Source record: 68615

This sounds similar to some cable I got surplus a number of years ago. The loss was surprisingly high at 7 MHz. I'm quite sure the reason is that the center conductor is made from several strands of very fine copper-clad steel wire. Although the copper is probably a sizeable fraction of the overall wire thickness, it's still thin in terms of skin depth at the lower part of the HF region because of the very small strand diameter. Consequently, significant current flows in the steel, which is very much more resistive than copper at HF. Loss at VHF is about what you'd expect from a copper center wire.

So I recommend checking the loss before using the cable at HF if loss might be important to the application. I used it as low-weight feedline for Field Day (I generally backpack my FD gear), and was prepared to accept the loss I thought it would have as a trade for the low weight. But I found the loss to be considerably greater than expected.

Roy Lewallen, W7EL

2619. Diameter of cable in coaxial Collinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 08:00:12 UTC
From: David <groups@orbitcoms.com>
Message-ID: <gY15f.21203$U51.10718@news-server.bigpond.net.au>
Source record: 68617

Hi,

I am in the process of making a couple of 9dB Collinear antennas for 920 MHz.

I was wondering if the diameter of the coax is significant.

The design is simply 1/2 wavelength sections soldered centre to braid with a 1/4 wave radiator at the top and a 1/4 wave sleeve choke and a few ferrite toroid baluns at the bottom. The original design uses RG58 coax but I find this difficult to solder in short lengths and the dielectric melts if the iron is left on too long. Instead I am using RG174 PFTE dielectric. The Vp for both is still 0.66.

Thanks for any info

Regards

David

2620. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 08:01:05 UTC
From: sofasurfer@blclinks.net
Message-ID: <1129622465.240479.33150@o13g2000cwo.googlegroups.com>
Source record: 68616

>He needs either a low-impedance antenna or a
>matching device to step the high-impedance >antenna output down to the
>line`s impedance. A hollower can do that >almost without losing voltage.

What is a hollower??

2621. Re: Help identifying tiny coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 10:58:41 UTC
From: Dave <noone@nowhere.com>
Message-ID: <TqSdnVdatOD5SMneRVn-ig@crocker.com>
Source record: 68618

he mentioned use for 802.11 so low freq stuff shouldn't be a problem.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11l940uof4kb6c2@corp.supernews.com...
> This sounds similar to some cable I got surplus a number of years ago. The
> loss was surprisingly high at 7 MHz. I'm quite sure the reason is that the
> center conductor is made from several strands of very fine copper-clad
> steel wire. Although the copper is probably a sizeable fraction of the
> overall wire thickness, it's still thin in terms of skin depth at the
> lower part of the HF region because of the very small strand diameter.
> Consequently, significant current flows in the steel, which is very much
> more resistive than copper at HF. Loss at VHF is about what you'd expect
> from a copper center wire.
>
> So I recommend checking the loss before using the cable at HF if loss
> might be important to the application. I used it as low-weight feedline
> for Field Day (I generally backpack my FD gear), and was prepared to
> accept the loss I thought it would have as a trade for the low weight. But
> I found the loss to be considerably greater than expected.
>
> Roy Lewallen, W7EL

2622. Re: wire antenna masts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 11:51:27 UTC
From: esj@harvee.org
Message-ID: <1129636287.123177.260660@g47g2000cwa.googlegroups.com>
Source record: 68619

yes, that's a very nice antenna design. However, if you notice the specification they want the center point of the antenna at 80 feet. like most hams I've got nothing even vaguely resembling 80 foot worth of antenna support. The best I can do is something around 25 feet but the trees are are not oriented so that I could get the direction I desire.

--- eric

2623. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 14:33:39 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndla1u3.1u50.bit-bucket@shell.config.com>
Source record: 68620

On 18 Oct 2005 01:01:05 -0700, sofasurfer@blclinks.net wrote:
>>He needs either a low-impedance antenna or a
>>matching device to step the high-impedance >antenna output down to the
>>line`s impedance. A hollower can do that >almost without losing voltage.
>
> What is a hollower??

Why, in Texas, it's a wire that's hollow in the center. :-)

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

2624. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 15:37:15 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj34rb$7is$1@engnntp2.cig.mot.com>
Source record: 68622

Owen,

[[[while I suspect the difference is so small that it makes little difference in the receiver sensitivity number arrived at, I proceed anyway.]]]

From your last two posts, it appears you/we have vastly different interpretations of what the question was. You talk about removing the fundamental from the square wave and this puzzles me. I do not believe the intent was to measure SINAD using a square wave modulation. Therefore removing its fundamental and measuring its RMS does not fit the situation.

My understanding of the issue was measuring SINAD with the older "Average-measuring-, RMS-reading" type (call it the "AVG-Type") of meter vs, a "true RMS" reading meter.

While I did talk about measuring a square wave with the "AVG_Type" meter, that was a digression only ment to show (what I think is) the difference for the previously proposed reference measurement. Namely try simply measuring a square wave for comparing the two meter readings, not SINAD measurements. I did this to show a calculation of how the two meters would read knowing the average and RMS values of _some_ waveform. I was thinking that I could do this for the two SINAD waveforms, but as you see here, I gave up...

Back to SINAD.
Therefore, the issue I was addressing was the following:
(for the normal SINAD technique, 1 kHz sine wave tone):
A- Assume the RMS meter gives the "correct" reading.
B- What does the "AVG_Type" show on the display/scale?

So, B has two parts.

1- What does the "AVG-Type" read for the un-notched signal, and
2- What does the "AVG-Type" show for the notched signal.

1- As a first approximation, lets say the un notched reading is dominated by the sine wave. With this assumption, they both read the same. To refine this estimate, I am unable to assess, easily, the effect of the noise on either measurement except that the True RMS mwter will give an indication of the total tone and noise power (actually Erms^2). As a first approximation, we could say that the "AVG-Type" reads the average of the sine plus the average of the noise voltages...and my estimation powers peter-out right there.
2- What does the "AVG_Type" read on the noise (notched signal)... yep, peter once again.

Therefore:

GOTO [[my statement in brackets above]]

Then there's the pronunciation. Some say "sin' add" and some say "sign' add". We said SIN add.

Nice exercise, time for me to move on to other things.

73, Steve, K,9.D;C'I

"Owen Duffy" <owen@no.where> wrote in message news:sqp8l1hq26kicok47f5rgevv70apnkv3go@4ax.com...
> On Mon, 17 Oct 2005 05:09:06 GMT, Owen Duffy <owen@no.where> wrote:
>
> >On Mon, 17 Oct 2005 03:09:11 GMT, Owen Duffy <owen@no.where> wrote:
> >
> >
> >>So, theoretically:
> >>- an ideal average responding meter should read (1-2/pi)% which is
> >>36.3% or 8.8dB on an perfect square wave;
> >
> >I think this is close to the right answer, but for the wrong reason. I
> >think it needs to be evaluated iteratively, and I get an answer closer
> >to 34.3% or 9.3dB.
>
> An analytical approach to solution of the problem.
>
> A unit height square wave has a fundamental component of amplitude
> 4/pi.
>
> To find the area under the filtered curve, I think we are looking for
> the integral from 0 to pi/2 of absolute(1-4/pi*sin(theta))). I will
> divide the integral at theta=asin(pi/4) to deal with the absolute
> function since the problem function is positive from 0 to asin(pi/4)
> and negative from asin(pi/4) to pi/2.
>
> Here is some Perl to evaluate the ratio:
>
> #find the zero crossing point
> $theta=asin($pi/4);
> #find the area under the curve
> $area=$theta-4/$pi*(-cos($theta)+cos(0)); #first part
> $area+=4/$pi*(-cos($pi/2)+cos($theta))-($pi/2-$theta); #second part
> #divide by area under unit square wave
> $ratio=$area/($pi/2);
> print "Average response ratio is $ratio \n";
>
> And the answer is 0.3430678471... or 9.3dB. It is about 9.4dB if you
> only consider the harmonics up to 50KHz.
>
> One of you mathematical whizzes might know a better way to put this!
>
> Owen

> --

2625. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 15:58:39 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <9r6al1l55u2ahna0u95h7k5dgvt7ufd61b@4ax.com>
Source record: 68621

On Tue, 18 Oct 2005 03:18:39 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Ed wrote:
>> Thanks for the offer, Cecil, but at this time I will decline. I plan
>> on just putting up as much wire as I can effectively mount between the
>> two trees, about 100 feet, and just feed it at the center with ladder
>> line.
>
>That's the antenna I was offering to model for you. You will,
>no doubt, run into some pitfalls, for instance an impedance
>of 8 ohms or 4000 ohms that your tuner may not be able to handle.
>EZNEC can predict such problems before they bite you.
>
>As a data point, the MFJ-974 gives you a matching range of 12-2000
>Ohms.
>
>EZNEC can also predict your radiation patterns which are important
>on the high bands if you want to hit certain areas of the world.
>Rotating my dipole in AZ by 15 degrees made a lot of difference.

For any given frequency, would that 8 ohms or 4000 ohms be decided by
the length of the dipole or the length of the ladderline, or both?

bob
k5qwg

2626. Feedpoint of a Half Square

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 16:28:32 UTC
From: Jim Leder <k8cxm@spam.fuse.net>
Message-ID: <e1bfe$435522a8$42a1c3a6$17874@FUSE.NET>
Source record: 68623

For years I've always fed my 30 meter Half Square at a top corner, and it's done a reasonable job in my opinion. Recently I've discovered 2 Eznec files, one for a Half Square and another for it's big brother, a Bobtail Curtain. Both show the feedpoint down just a little bit on the driven element vertical, and NOT dead on the corner. I've studied both Eznec model outputs (corner feed and not corner feed) and indeed the different feedpoint does show a little more gain, about 1.5 DB without altering the antenna impedance much. The one I modeled for 30 has the feedpoint down about 2 inches from the corner. Is what I am seeing accurate? Or, is this just another Eznec anomaly? I realize that 1.5 DB isn't too much to worry about, but if I should make another one, maybe I should alter the feedpoint. Opinions? Thanks.

2627. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 17:28:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <uha5f.17276$6e1.4851@newssvr14.news.prodigy.com>
Source record: 68624

Bob Miller wrote:
> For any given frequency, would that 8 ohms or 4000 ohms be decided by
> the length of the dipole or the length of the ladderline, or both?

Both. For instance the resonant impedance of a G5RV on the lower
part of 80m is usually about 8 ohms. If the feedline for a one
wavelength dipole is 1/2WL, the impedance will be about 4000 ohms.
The feedline impedance seen by your tuner is somewhat unpredictable
and EZNEC can tell you what ballpark impedance to expect. EZNEC
has saved me an enormous amount of time - 10 minutes of simulation
Vs 10 hours of antenna erection time.
--
73, Cecil http://www.qsl.net/w5dxp

2628. Re: Feedpoint of a Half Square

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 17:35:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cna5f.17277$6e1.9514@newssvr14.news.prodigy.com>
Source record: 68625

Jim Leder wrote:

> For years I've always fed my 30 meter Half Square at a top corner, and it's
> done a reasonable job in my opinion. Recently I've discovered 2 Eznec files,
> one for a Half Square and another for it's big brother, a Bobtail Curtain.
> Both show the feedpoint down just a little bit on the driven element
> vertical, and NOT dead on the corner. I've studied both Eznec model outputs
> (corner feed and not corner feed) and indeed the different feedpoint does
> show a little more gain, about 1.5 DB without altering the antenna impedance
> much. The one I modeled for 30 has the feedpoint down about 2 inches from
> the corner. Is what I am seeing accurate? Or, is this just another Eznec
> anomaly? I realize that 1.5 DB isn't too much to worry about, but if I
> should make another one, maybe I should alter the feedpoint. Opinions?

For an antenna like the half-square, I would trust the EZNEC results
as long as you didn't violate any of the EZNEC guide lines.

I once violated the EZNEC guidelines and got an omindirectional antenna
with 20 dBi gain in all horizontal directions. :-(

Another possibility is to feed the half-square at the lowest point
with a matching network to match the high impedance.

Another thought just occured to me - that a 600 ohm feed point must
exist somewhere down the vertical section. Of course, balancing the
currents at that point would be a challenge.
--
73, Cecil http://www.qsl.net/w5dxp

2629. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 18:14:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dj3e23$5tc$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68527

The loss in a switched transmission line tuner is somewhat greater
than in a conventional tuner which can be adjusted for an exact,
low-loss, impedance match.

Reg.

2630. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 18:16:02 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F372A341D43spectrumhogstarbandn@207.106.93.175>
Source record: 68526

> That's the antenna I was offering to model for you. You will,
> no doubt, run into some pitfalls, for instance an impedance
> of 8 ohms or 4000 ohms that your tuner may not be able to handle.
> EZNEC can predict such problems before they bite you.

OK. I'll take you up on the offer, afterall. Figure 100' of #14 copperweld, centerfed with 450ohm ladderline or with 600 ohm open wire line (2"). Height should be about 45' at ends and 35 feet center. Length of feedline is projected at about 45 feet.

I'll go with the 600 ohm wireline feed if I can find it, otherwise, the cheap 450 ohm plastic stuff for now and build wireline next summer.

>
> EZNEC can also predict your radiation patterns which are important
> on the high bands if you want to hit certain areas of the world.
> Rotating my dipole in AZ by 15 degrees made a lot of difference.

Not real concerned with the patterns of anything above 40M. I'm mainly interested in 80/75/60/40M use. I'll take what I get and see how it goes..... might be nice to see 20M and 10M patterns, though. Thanks.

Ed

2631. ESA calls radioamateurs

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 19:08:34 UTC
From: Thierry <->
Message-ID: <43554833$1@news.vo.lu>
Source record: 68528

Hi,

For info
http://www.esa.int/SPECIALS/sseti_express/SEMARJ7X9DE_0.html

73
Thierry, ON4SKY

--
Auteur de "Un si�cle de Physique, 1- La Physique Quantique" aux �ditions
AEGEUS
D�tail sur : http://www.astrosurf.org/lombry

2632. Re: Trying to get AM broadcast at job

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 19:11:04 UTC
From: richardharrison@webtv.net
Message-ID: <23481-435548C8-71@storefull-3257.bay.webtv.net>
Source record: 68529

Sofasurfer wrote:
"What is a follower?"

A follower is an amplifier in which the output signal voltage is nearly the same as it "hollows" the input voltage. Its purpose is to reproduce the input voltage, but make it available at a lower output impedance. Thus it has power gain although it has a slight voltage loss. Its input impedance is high because it has a very large inverse feedback. This gives it a wide frequency response as well.

Suppose you have an ordinary r-f transistor, almost any will do, that works well at 1 milliampere of collector current, and it has a current gain of 100. We have a d-c power supply of 12 volts.

We want to drop about 6 volts across the emitter resistor so our signal can have equal up and down swings. Ohm`s law tells us that a 6000-ohm emmiter resistor will drop 6 volts with 1 milliampere through it.

We can set our forward bias with a pair of 60,000-ohm resistors connected in series to give about 6 volts at their midpoint for the transistor base connection. These are low enough values for stability. That`s all there is to the d-c design.

The follower will present about 30,000 ohms load on the 5,000-ohm AM broadcast antenna whip. The transistor loading on the whip is negligible being about current gain times the emitter resistance.

The follower will present a very low output resistance to its load, the line to the radio it feeds. It is much less than the 6,000 ohm emitter resistance due to the inverse feedback around the transistor.

Capacitors large enough to have negligible reactance at the r-f loads should be used to couple the input and output of the follower to avoid d-c upset. Match transistor and power supply polarities. Transistor manuals have sample circuits.

Best regards, Richard Harrison, KB5WZI

2633. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 19:25:36 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <UZGdnRpTcrJT0cjeRVn-uA@comcast.com>
Source record: 68530

600 ohm open wire line is available from W7FG [800-807-6146].

50 feet $23
100 feet $40.

I've used it for years at the KW level. No problems.

I'm just a satisfied customer and have no financial interest in their
business.

Ed wrote:

>>That's the antenna I was offering to model for you. You will,
>>no doubt, run into some pitfalls, for instance an impedance
>>of 8 ohms or 4000 ohms that your tuner may not be able to handle.
>>EZNEC can predict such problems before they bite you.
>
>
> OK. I'll take you up on the offer, afterall. Figure 100' of #14
> copperweld, centerfed with 450ohm ladderline or with 600 ohm open wire
> line (2"). Height should be about 45' at ends and 35 feet center.
> Length of feedline is projected at about 45 feet.
>
> I'll go with the 600 ohm wireline feed if I can find it, otherwise,
> the cheap 450 ohm plastic stuff for now and build wireline next summer.
>
>
>
>>EZNEC can also predict your radiation patterns which are important
>>on the high bands if you want to hit certain areas of the world.
>>Rotating my dipole in AZ by 15 degrees made a lot of difference.
>
>
> Not real concerned with the patterns of anything above 40M. I'm
> mainly interested in 80/75/60/40M use. I'll take what I get and see
> how it goes..... might be nice to see 20M and 10M patterns, though.
> Thanks.
>
>
> Ed
>
>

2634. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 20:18:34 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <fblal1tavo45g9093j6q35g9hjajalqkgv@4ax.com>
Source record: 68531

On Tue, 18 Oct 2005 10:37:15 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>Owen,
>

> From your last two posts, it appears you/we have vastly different
>interpretations of what the question was. You talk about removing the
>fundamental from the square wave and this puzzles me. I do not believe the
>intent was to measure SINAD using a square wave modulation. Therefore
>removing its fundamental and measuring its RMS does not fit the situation.
>

Some discussion arose about the extent of errors when using an aveage
responding meter to measure SINAD (compared to a true RMS meter).

My experimental evidence is that when measuring SINAD on a 2.4KHz wide
receiver at SINAD=12dB, the error is less than 1dB. Of course, it will
be less for higher SINAD ratios, and worse for lower ones.

I offered that a simple test of whether a SINAD meter was average
responding or true RMS responding, was to measure the SINAD of a good
square wave. The average responding meter will indicate about 9.3dB
whereas an RMS responding meter will indicate around 7.3dB.

I think we both understood that.

>
>Back to SINAD.
>Therefore, the issue I was addressing was the following:
>(for the normal SINAD technique, 1 kHz sine wave tone):
>A- Assume the RMS meter gives the "correct" reading.
>B- What does the "AVG_Type" show on the display/scale?
>
>So, B has two parts.
>
>1- What does the "AVG-Type" read for the un-notched signal, and
>2- What does the "AVG-Type" show for the notched signal.
>
>1- As a first approximation, lets say the un notched reading is dominated by
>the sine wave. With this assumption, they both read the same. To refine
>this estimate, I am unable to assess, easily, the effect of the noise on
>either measurement except that the True RMS mwter will give an indication of
>the total tone and noise power (actually Erms^2). As a first approximation,
>we could say that the "AVG-Type" reads the average of the sine plus the
>average of the noise voltages...and my estimation powers peter-out right

>there.
>2- What does the "AVG_Type" read on the noise (notched signal)... yep, peter
>once again.

As I stated above, and you stated, the comparison will depend on the extent to which the sine wave dominates the total signal, and so will depend on the SINAD being measured. I suggest that it will also depend on the noise bandwidth.

Repeating, my experimental evidence is that when measuring SINAD on a 2.4KHz wide receiver at SINAD=12dB, the error is less than 1dB.

At the end of the day, it doesn't matter that much for normal applications if the SINAD meter is average responding, they appear to overestimate the SINAD, but by a very small amount.

>
>Therefore:
>
>GOTO [[my statement in brackets above]]
>

You are trying to send Wes in a loop.

>Then there's the pronunciation. Some say "sin' add" and some say "sign'
>add". We said SIN add.

Dangerous territory, this could become an international incident when you bring pronunciation into scope. There, and you all (mostly) thought I didn't know how to spell... all those esses where they should be zeds, no thats zees isn't it.

Owen
--

2635. Re: What is SINAD?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 21:29:14 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dj3pfa$mr4$1@engnntp2.cig.mot.com>
Source record: 68532

"Owen Duffy" <owen@no.where> wrote in message
news:fblal1tavo45g9093j6q35g9hjajalqkgv@4ax.com...
> On Tue, 18 Oct 2005 10:37:15 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> [...]
>
> I offered that a simple test of whether a SINAD meter was average
> responding or true RMS responding, was to measure the SINAD of a good
> square wave. The average responding meter will indicate about 9.3dB
> whereas an RMS responding meter will indicate around 7.3dB.
>
> I think we both understood that.

Nope, I missed that concept. Thanks for the clarify.

2636. Re: Diameter of cable in coaxial Collinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 23:05:41 UTC
From: Bob Nielsen <nielsen@oz.net>
Message-ID: <pan.2005.10.18.23.05.41.392898@oz.net>
Source record: 68533

On Tue, 18 Oct 2005 09:00:12 +0000, David wrote:

> Hi,
>
> I am in the process of making a couple of 9dB Collinear antennas for 920
> MHz.
>
> I was wondering if the diameter of the coax is significant.
>
> The design is simply 1/2 wavelength sections soldered centre to braid
> with a 1/4 wave radiator at the top and a 1/4 wave sleeve choke and a
> few ferrite toroid baluns at the bottom. The original design uses RG58
> coax but I find this difficult to solder in short lengths and the
> dielectric melts if the iron is left on too long. Instead I am using
> RG174 PFTE dielectric. The Vp for both is still 0.66.

The Vp for PFTE is more like 0.695. I would suggest semi-rigid for this
application.

Bob, N7XY

2637. Re: Diameter of cable in coaxial Collinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-18 23:08:42 UTC
From: David <groups@orbitcoms.com>
Message-ID: <_ff5f.21729$U51.5235@news-server.bigpond.net.au>
Source record: 68534

Bob,

Thanks for your response. Why would you recommend semi-rigid ?

Bob Nielsen wrote:
> On Tue, 18 Oct 2005 09:00:12 +0000, David wrote:
>
>
>>Hi,
>>
>>I am in the process of making a couple of 9dB Collinear antennas for 920
>>MHz.
>>
>>I was wondering if the diameter of the coax is significant.
>>
>>The design is simply 1/2 wavelength sections soldered centre to braid
>>with a 1/4 wave radiator at the top and a 1/4 wave sleeve choke and a
>>few ferrite toroid baluns at the bottom. The original design uses RG58
>>coax but I find this difficult to solder in short lengths and the
>>dielectric melts if the iron is left on too long. Instead I am using
>>RG174 PFTE dielectric. The Vp for both is still 0.66.
>
>
> The Vp for PFTE is more like 0.695. I would suggest semi-rigid for this
> application.
>
> Bob, N7XY
>

2638. Re: Mosley Ta-33

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 00:13:25 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <Fcg5f.16318$vw6.8652@newsread1.news.atl.earthlink.net>
Source record: 68535

On the way via e-mail.

Dan/W4NTI

"avidfan" <n0ny@nospam.mn.rr.com> wrote in message
news:be3d53526404499026e126f6dd7d2fdf@localhost.talkaboutradio.com...
>I need a manual for this antenna. Looking for a link to a website that has
> one as a freebie.
>

2639. Ruggedized antenna for NOAA sats?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 00:16:52 UTC
From: David Findlay <david@davsoft.com.au>
Message-ID: <Ufg5f.21830$U51.18187@news-server.bigpond.net.au>
Source record: 68536

I'm currently building a VHF APT image receiver for my vehicle, and need a suitable antenna design that is rugged enough to survive the rigors of being hit by hail and strong winds. It also needs to be relatively compact because I need to fit other antennae on the roof too. I was thinking some sort of helical. Anyone got suggestions of what would be best? Thanks,

David

2640. Re: Ruggedized antenna for NOAA sats?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 00:27:07 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <vpg5f.4576$t12.3099@trnddc03>
Source record: 68537

"David Findlay" <david@davsoft.com.au> wrote in message
news:Ufg5f.21830$U51.18187@news-server.bigpond.net.au...
> I'm currently building a VHF APT image receiver for my vehicle, and need a
> suitable antenna design that is rugged enough to survive the rigors of
> being hit by hail and strong winds. It also needs to be relatively compact
> because I need to fit other antennae on the roof too. I was thinking some
> sort of helical. Anyone got suggestions of what would be best? Thanks,
>
> David

David

I have some experience with APT imaging and antennas for NOAA satellites.
You can contact me at my E-mail address for more info and pictures.
I wouldnt be optimistic about being able to get good images with an
antenna that is permanently mounted above the top of a car.
Are you aware that Walter Maxwell frequents this news group? He has to
be the best source of guidance on APT antennas *anywhere*.

Jerry

2641. Re: Doublet Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 00:53:45 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F3B6127B623spectrumhogstarbandn@207.106.93.175>
Source record: 68538

> 600 ohm open wire line is available from W7FG [800-807-6146].
>
> 50 feet $23
> 100 feet $40.
>

Thanks. I've noted the number (what an interesting set up numbers!),
and will call in a few weeks when I'm ready to order.

Ed

2642. Re: Diameter of cable in coaxial Collinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 01:27:51 UTC
From: Bob Nielsen <nielsen@oz.net>
Message-ID: <pan.2005.10.19.01.27.47.486152@oz.net>
Source record: 68539

On Wed, 19 Oct 2005 00:08:42 +0000, David wrote:

> Bob,
>
> Thanks for your response. Why would you recommend semi-rigid ?

In my experience, you can more precisely control the length of the tubing
than with a braid shield. There is some mechanical rigidity advantage, as
well, although that isn't a big factor if you use some sort of dielectric
tube to contain the antenna.

>
> Bob Nielsen wrote:
>> On Tue, 18 Oct 2005 09:00:12 +0000, David wrote:
>>
>>
>>>Hi,
>>>
>>>I am in the process of making a couple of 9dB Collinear antennas for 920
>>>MHz.
>>>
>>>I was wondering if the diameter of the coax is significant.
>>>
>>>The design is simply 1/2 wavelength sections soldered centre to braid
>>>with a 1/4 wave radiator at the top and a 1/4 wave sleeve choke and a
>>>few ferrite toroid baluns at the bottom. The original design uses RG58
>>>coax but I find this difficult to solder in short lengths and the
>>>dielectric melts if the iron is left on too long. Instead I am using
>>>RG174 PFTE dielectric. The Vp for both is still 0.66.
>>
>>
>> The Vp for PFTE is more like 0.695. I would suggest semi-rigid for this
>> application.
>>
>> Bob, N7XY
>>

2643. Re: Help identifying tiny coax

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 11:05:00 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <scKdnfDjsuq3tcveRVn-oQ@bright.net>
Source record: 68540

Hey, that stuff might be great to use as an attenuator between an HF
radio and a transverter...hmmm....

Scott
N0EDV

Roy Lewallen wrote:

> This sounds similar to some cable I got surplus a number of years ago.
> The loss was surprisingly high at 7 MHz. I'm quite sure the reason is
> that the center conductor is made from several strands of very fine
> copper-clad steel wire. Although the copper is probably a sizeable
> fraction of the overall wire thickness, it's still thin in terms of skin
> depth at the lower part of the HF region because of the very small
> strand diameter. Consequently, significant current flows in the steel,
> which is very much more resistive than copper at HF. Loss at VHF is
> about what you'd expect from a copper center wire.
>
> So I recommend checking the loss before using the cable at HF if loss
> might be important to the application. I used it as low-weight feedline
> for Field Day (I generally backpack my FD gear), and was prepared to
> accept the loss I thought it would have as a trade for the low weight.
> But I found the loss to be considerably greater than expected.
>
> Roy Lewallen, W7EL

2644. HyGain 18HT HyTower -17Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 11:06:57 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <hLp5f.37138$Lp.28327@bignews5.bellsouth.net>
Source record: 68541

Any tricks to adding a 1/4 wave 17 meter stub to the 18HT....???

Do I have to remove the 15 meter stub and replace it with a 17 stub?

I looked at the stub Hygain sell for the conversion and it looks about a foot + too long for 17 is there a reason for this?

Thanks, before I get more grey hair!!

-Bill
kc4pe@bellsouth.net

2645. Sandpiperaerials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 21:08:34 UTC
From: Thierry <->
Message-ID: <4356b5d2@news.vo.lu>
Source record: 68542

Hi,

Has someone out there already used or do you know the company
http://www.sandpiperaerials.co.uk/
They seems to sale portable antennas of quite good quality, vertical, loop,
beam etc . But never heard from...
This is US friend living in Kuweit who provided me the link.

Thanks
Thierry, ON4SKY

--
Auteur de "Un si�cle de Physique, 1- La Physique Quantique" aux �ditions
AEGEUS
D�tail sur : http://www.astrosurf.org/lombry

2646. Re: Mythbusters: The G5RV on 12m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 21:10:13 UTC
From: Thierry <->
Message-ID: <4356b635$1@news.vo.lu>
Source record: 68543

"Cecil Moore" <mycall@arrl.net> wrote in message
news:TsS4f.2685$BZ5.384@newssvr13.news.prodigy.com...
> The myth: "Contrary to oft stated views, the Classic G5RV is not
> an all band antenna, it: does not have acceptable feed performance
> on any WARC bands;" Quoted from: http://www.vk1od.net/G5RV/
>
> 12m is a WARC band. The standard G5RV performs very well on 12m
> band. Therefore, the above statement is a myth. (Hey, this silly
> myth game is actually fun.) :-)

I confirm. I used both G5RV and OCF for Dxing with as good results as on the
other bands.

Thierry, ON4SKY
http://www.astrosurf.org/lombry/

> --
> 73, Cecil http://www.qsl.net/w5dxp
>

2647. Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 22:29:17 UTC
From: fh03 <fh03.1x6krk@news.radiobanter.com>
Message-ID: <fh03.1x6krk@news.radiobanter.com>
Source record: 68546

Hello guys,

I am building an RF tag that will transmit some data using a microcontroller and a 433 Mhz transmitter. But I do not want to place any buttons on the device nor have it be on at all times. So I was wondering is there a way to create a magnetic field at the source to generate an induced current in this tag to perhaps flip a switch to turn on the internal battery? And once the tag is out of the fields range the switch will open again?

I know systems such as the Sunpass or other electronic toll payments use something like this.

If anyone has any information on how this can be done, please help.

Thanks.

--
fh03

2648. LINDA WEST likes to put peoples names on moving contracts without THEIR Knowledge of CHIPMAN UNITED VAN LINES (925) 876-7441 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 22:51:42 UTC
From: aiccor <judool@hotmail.com>
Message-ID: <1129762302.510185.13860@g14g2000cwa.googlegroups.com>
Source record: 68544
Cross-posted to: alt.guitar.amps,rec.gambling.poker,hfx.general,rec.radio.amateur.antenna

LINDA WEST likes to put peoples names on moving contracts without
THEIR Knowledge of CHIPMAN UNITED VAN LINES (925) 876-7441 925-825-5000

likes to commit Fraud & Forgery and she likes to put peoples
names on moving contracts without THEIR Knowledge.

LINDA WEST likes to commit Fraud & Forgery of CHIPMAN UNITED VAN LINES
(925) 876-7441 L...@chipmancorp.com 925-825-5000
CHIPMAN UNITED VAN LINES likes to commit Fraud & Forgery and she
likes to put peoples names on moving contracts without THEIR Knowledge.

Caton Mayflower Moving & Storage Movers & Relocation Dublin,ca &
concord,ca 925-887-5515, 925-825-5000, (925) 876-7441,
800-825-3866,800-447-9771, 925-609-1800, 800-447-1771,
925-935-4073, 925-828-3985 Linda West United Van Lines
CHIPMAN RELOCATIONS Voice Mail: 925/887-5515, 800/447-9771,
Fax: 925/687-8304 5060 Forni Dr, Ste. C Concord,Cs 94520 (510) 839-4444

Alamo,ca Danville,ca Blackhawk,ca San Ramon,ca Pleasanton,ca

2649. Re: LINDA WEST likes to put peoples names on moving contracts without THEIR Knowledge of CHIPMAN UNITED VAN LINES (925) 876-7441 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-19 23:29:00 UTC
From: Robot Man <robot_man64@hotmail.com>
Message-ID: <0FA5f.34867$lo.31686@clgrps13>
Source record: 68545
Cross-posted to: alt.guitar.amps,rec.gambling.poker,hfx.general,rec.radio.amateur.antenna

ahhhhhhhh , shut up already......
no one here gives a rats ass.............

"aiccor" <judool@hotmail.com> wrote in message
news:1129762302.510185.13860@g14g2000cwa.googlegroups.com...
> LINDA WEST likes to put peoples names on moving contracts without
> THEIR Knowledge of CHIPMAN UNITED VAN LINES (925) 876-7441 925-825-5000
>
>

2650. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 06:46:27 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <7r-dnXcvN8i7oMreRVn-iA@web-ster.com>
Source record: 68547

fh03 wrote:
> Hello guys,
>
> I am building an RF tag that will transmit some data using a
> microcontroller and a 433 Mhz transmitter. But I do not want to place
> any buttons on the device nor have it be on at all times. So I was
> wondering is there a way to create a magnetic field at the source to
> generate an induced current in this tag to perhaps flip a switch to
> turn on the internal battery? And once the tag is out of the fields
> range the switch will open again?
>
> I know systems such as the Sunpass or other electronic toll payments
> use something like this.
>
> If anyone has any information on how this can be done, please help.
>
> Thanks.
>
>
Some of the passive RFID stuff powers the card from the incoming carrier
wave -- but I have no direct experience with them. I don't know how
close you need to be other than having heard of them being used on
railroad cars passing a fixed installation.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2651. Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 10:17:46 UTC
From: oldcrow <oldcrow1@pobox.com>
Message-ID: <1129803465.953662.187300@g47g2000cwa.googlegroups.com>
Source record: 68548

Hi!

If I was to take yagi antenna for 1.2 gHz and then double the length of each element. Would that work on 2.4 gHz?

Bob

2652. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 11:17:17 UTC
From: sixfoot7@sccoast.net
Message-ID: <1129807037.819534.243890@f14g2000cwb.googlegroups.com>
Source record: 68549
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.equipment

If you want to see an unpolite newsgroup, post a home owner message at
alt.hvac and watch it fly.

Stretch

2653. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 11:29:00 UTC
From: HankG <hank@invalid.com>
Message-ID: <ItSdnZOVpfjn4sreRVn-tw@comcast.com>
Source record: 68550

"oldcrow" <oldcrow1@pobox.com> wrote in message
news:1129803465.953662.187300@g47g2000cwa.googlegroups.com...
> Hi!
>
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?

Newbie here. Doesn't higher frequency = shorter wavelength? Therefore,
shorter elements? Also, probably need to adjust spacing of elements per the
formula.

HankG

2654. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 11:38:31 UTC
From: F8BOE <f8boe@bluemail.ch>
Message-ID: <43578137$0$7338$636a55ce@news.free.fr>
Source record: 68551

Hello,

Be careful! Thin Ice!

try it with: wavelength_in_meter = 300 / frequency_in_MHz

or go to your local phone shop and by a WLAN antenna.

73 de F8BOE Olivier ...-.-

oldcrow trolled:

> Hi!
>
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?
>
> Bob

2655. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 12:54:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <isM5f.6492$Zv5.2715@newssvr25.news.prodigy.net>
Source record: 68552

oldcrow wrote:
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?

Cut all 1.2 gHz dimensions in half for 2.4 gHz.
--
73, Cecil http://www.qsl.net/w5dxp

2656. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 13:23:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11lf6ivffqga244@corp.supernews.com>
Source record: 68553

No.

If you begin with a Yagi antenna made for exactly 1.2 GHz and *reduce*
the element length, element diameter, and element spacing all by a
factor of two, it would work at exactly 2.4 GHz. That's assuming that
the effect of the boom is negligible. If the boom is large enough to
have an effect (typically the case), you'll also have to reduce the
diameter of the boom by a factor of two.

There's an infinite number of other combinations which will work; for
example, you can leave the element and boom diameters the same and
change only the spacing and element length. But then the spacing and
element length will need to be changed by some factor other than two,
and there's no simple way to calculate the factor.

Roy Lewallen, W7EL

oldcrow wrote:
> Hi!
>
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?
>
> Bob
>

2657. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 13:23:45 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <2smdne1wPdQFB8reRVn-qg@comcast.com>
Source record: 68554

No!

A Yagi is a moderately complex design. Generally a computer, or computer generated graphics and length tables are used for element length, spacing and boom length.

A 2.4 GHz Yagi would be close to 1/2 size, in all dimensions, of a 1.2 GHz antenna.

Your best bet is to buy a commercial antenna for your application.

AK

oldcrow wrote:

> Hi!
>
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?
>
> Bob
>

2658. Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 13:44:55 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1129815895.553583.77090@z14g2000cwz.googlegroups.com>
Source record: 68555

Hi folks,

I have some questions. If I had two power amps at 15W each, 2 feet apart, and they are connected to two similar isotropic antennas, would the two far-field patterns add up? How would I calculate the power received by a receiver at a certain distance?

I wonder since each antenna will have 0dB gain, then ideally the loss that I would need to take into account would just be free space path loss, eh? Will the antenna patterns change in terms of beamwidth and gain? What other changes/factors do I need to know about?

Thanks!

2659. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 14:10:34 UTC
From: Rus <n8nne@comcast.net>
Message-ID: <1129817434.675858.218540@z14g2000cwz.googlegroups.com>
Source record: 68556

Remember that the relationship between wavelength and Frequency is
defined by the equation ---

c = Lambda X Nu

where
c = 300,000,000 meters per second
Lambda = wavelength (in meters)
Nu = Frequency in cycles per second

Thus solving for either lambda or nu reveals an inversely proportional
relationship between the two.

Consequently as the number of cycles per second (frequency) increases,
the wavelength shortens.

Rus

2660. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 14:11:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <_zN5f.17646$6e1.6485@newssvr14.news.prodigy.com>
Source record: 68557

CD wrote:
> I have some questions. If I had two power amps at 15W each, 2 feet
> apart, and they are connected to two similar isotropic antennas, would
> the two far-field patterns add up?

Will the two outputs of the "power amps" be phase-locked?
--
73, Cecil, http://www.qsl.net/w5dxp

2661. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 14:36:05 UTC
From: richardharrison@webtv.net
Message-ID: <13358-4357AB55-246@storefull-3258.bay.webtv.net>
Source record: 68558

Jim Richardson wrote:

"Primarily two things, alerting pre-evac and at grade crossing alerts
that a high speed locomotive is approaching."

Trains are a big part of successful evacuation. When Rita approached
Texas, officials asked for more Amtrack trains and got them , though not
enough, to evacuate Galveson and surrounding areas. No reports pf
injuries to evacuees on trains, but many in autos and aboard busses died
in traffic jams on highways.
The nation needs a rail system especially in emergencies.

Best regards, Richard Harrison, KB5WZI

2662. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 14:44:17 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <676dnSXporPmMMreRVn-vw@comcast.com>
Source record: 68559

If they are ABSOLUTELY in phase, the far fields will add.

Typically, the fields will not be in phase, unless the signal SOURCE and ALL cables are precisely controlled [phase locked and absolute phase velocity controlled], and the resulting pattern will be the vector sum of the individual fields. a distorted pattern will result.

AK

CD wrote:

> Hi folks,
>
> I have some questions. If I had two power amps at 15W each, 2 feet
> apart, and they are connected to two similar isotropic antennas, would
> the two far-field patterns add up? How would I calculate the power
> received by a receiver at a certain distance?
>
> I wonder since each antenna will have 0dB gain, then ideally the loss
> that I would need to take into account would just be free space path
> loss, eh? Will the antenna patterns change in terms of beamwidth and
> gain? What other changes/factors do I need to know about?
>
> Thanks!
>

2663. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 14:48:06 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <7ank23-tmk.ln1@p400bob.personal.cox.net>
Source record: 68560

I guess a magnetic reed switch wouldnt be sensitive enough? This device that is often used for door and window alarms by moving a magnet towards or away from the switch. I am guessing that 20-30mm is the normal actuation distance. No doubt you could increase that distance by using a stronger electromagnet

Cheers Bob VK2YQA

fh03 wrote:
> So I was
> wondering is there a way to create a magnetic field at the source to
> generate an induced current in this tag

2664. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 15:14:03 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <sqok23-5ok.ln1@p400bob.personal.cox.net>
Source record: 68563

Making my brain work again!! (So some of this may be through my hat!)

The far field pattern would no longer be isotropic. You didnt specify the frequency in use but genenerally speaking you would get more radiation perpendicular to a line between the two antennas than in line with them. As you go lower in frequency this effect becomes less and less. As you go higher than frequencies where the distance between become more than a wavelength (or so) the pattern will tend to break into more than one lobe in each (general) direction. This assumes of course that the antennas are also being fed in phase, probably from the same transmitter.

This pattern is a result of the addition and cancellation of the voltages due to the phase differences. If your antennas dont run from the same TX and the freq/phase is changing the pattern will be changing at the rate of the freq difference.

Calculate the power in theoretical terms of an AC voltage either perfectly in phase (ie twice) or if some phase difference occurs, being somewhat less.

I am sure that you know about the squishable rubber ball analogy of antanna radaition patterns.

Modeling your setup through 4NEC2, EZNEC etc will give you a far better appreciation of the outcome. I'll admit I dont know how to input an isotropic in these pgms though.

As a general rule of thumb when one combines two antennas (usually ones with gain) at the correct spacing you get inbetween a 2dB and (just under) 3dB power gain increase in the desired direction. As you get close to the maximum gain possible though you also see "extra" sidelobes that depending on your use may be undesirable.

Hope you find this of some use and not too confusing!

Cheers Bob VK2YQA in W5

CD wrote:
>
> Hi folks,
>
> I have some questions. If I had two power amps at 15W each, 2 feet
> apart, and they are connected to two similar isotropic antennas, would
> the two far-field patterns add up? How would I calculate the power
> received by a receiver at a certain distance?

2665. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 15:27:08 UTC
From: CD <mr.whatever@gmail.com>
Message-ID: <1129822028.356533.20390@g44g2000cwa.googlegroups.com>
Source record: 68561

I'm not sure if they are phase-locked. I think my friend just added a coupler or splitter (?) from his transmitter and fed them off the two power amps.

2666. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 15:32:50 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ou6dnR4N39o3JcreRVn-tQ@crocker.com>
Source record: 68562

why not use one of the readily available systems that has the problems already worked out? there are rfid tags that you can program with your data to track things, and there are the smart rf activated credit card type devices for users. both of these use a short range hf signal that is received by the tag, converted to power the internal circuitry, then to send out the data burst to identify the tag or card and dump their data. the card is only active while in the activating field, otherwise it doesn't have any power source. electronic toll payment systems usually use a more active device since they have to work over longer distances, most of these have a battery in the client device that powers the receiver... the receiver may only come on for short checks every second or two to see if it is in range and needs to send it's identification and data so battery life can be very long.

"fh03" <fh03.1x6krk@news.radiobanter.com> wrote in message news:fh03.1x6krk@news.radiobanter.com...
>
> Hello guys,
>
> I am building an RF tag that will transmit some data using a
> microcontroller and a 433 Mhz transmitter. But I do not want to place
> any buttons on the device nor have it be on at all times. So I was
> wondering is there a way to create a magnetic field at the source to
> generate an induced current in this tag to perhaps flip a switch to
> turn on the internal battery? And once the tag is out of the fields
> range the switch will open again?
>
> I know systems such as the Sunpass or other electronic toll payments
> use something like this.
>
> If anyone has any information on how this can be done, please help.
>
> Thanks.
>
>
> --
> fh03

2667. NYTimes pro-BPL editorial

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 16:15:32 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <dggfl1h5bkq4painh1i330g1hrb6q0nudl@4ax.com>
Source record: 68564

Time to write these folks a letter.

http://www.nytimes.com/2005/10/20/opinion/20thur4.html

Bob
k5qwg

2668. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 16:45:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <kQP5f.17685$6e1.841@newssvr14.news.prodigy.com>
Source record: 68565

CD wrote:
> I'm not sure if they are phase-locked. I think my friend just added a
> coupler or splitter (?) from his transmitter and fed them off the two
> power amps.

That's probably asking for trouble in the far-field.
--
73, Cecil, http://www.qsl.net/w5dxp

2669. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 18:07:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d5mfl1130olkhf4r4c2l2pd93bm6nnbe0r@4ax.com>
Source record: 68566

On 20 Oct 2005 06:44:55 -0700, "CD" <mr.whatever@gmail.com> wrote:
>would the two far-field patterns add up?

Yes.

>How would I calculate the power
>received by a receiver at a certain distance?

With considerable contortions of phase math, or simply by using EZNEC.

Unfortunately, EZNEC does not model a isotropic radiator (but you
don't really have two of them anyway, do you?), so you may have to
slog through the vector additions. They are not that very difficult,
conceptually (although it seems to have baffled the crew so far).

Phase at a frequency is equivalent to distance, and you already know
both the frequency and the distances. Beyond this, it is no more
difficult than making a three bank shot in billiards.

73's
Richard Clark, KB7QHC

2670. Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 18:57:21 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <kvpfl1dgvg5575f7l0chd91s886nu3anp7@4ax.com>
Source record: 68567

Messed Up Ground Radials Can Generate Spurious Signals

In 1948 I was the consulting engineer for the proposed first AM broadcast station in Mt. Pleasant, Michigan, obtaining a construction permit and license for WCEN, 500 watts on 1150 KHz. Using a National HRO receiver, I was performing a hands-on search for an available frequency for the new station, when I encountered an interesting and unusual signal that was entirely out of place in the AM broadcast band-a CW Morse-code station illegally transmitting five-letter-word code groups at 30 words per minute. The illegal signal was S9 +40 dB on 1297.8 KHz, producing a 2200 Hz beat-note with the 1300 KHz frequency of WOOD, Grand Rapids, thus producing a an audible CW signal with the receiver BFO disabled.

The format of the coded messages appeared to be military, IDing as NSS. We know that NSS is the flagship station of the U.S. Navy in Annapolis, MD, but in the AM broadcast band? It appeared that either an NSS transmitter was producing a spurious emission, or a station using NSS as a fraudulent call sign was operating clandestinely in the AM broadcast band. I deemed it important to find out which.

As a former FCC monitoring officer at the Allegan, Michigan monitoring station, the next step was to report the situation to the Allegan station. Although Allegan was 90 airline miles away, the monitoring personnel there could not hear the spurious signal, even though it was S9 +40 dB at Mt. Pleasant. I let the FCC monitors hear the signal through the telephone, but they still heard nothing on their receivers tuned to 1297.8 KHz. Thus the signal must be of local origin near Mt. Pleasant, and not from NSS. However, to be on the safe side, FCC notified the Navy of the spurious signals, and the NSS operators began combing all their transmitters for spurious signals, and found none. The situation is now becoming even more strange.

I then copied five minutes of the coded text and sent a copy to the FCC, who relayed it to NSS for comparison to their transmissions. The situation is now both perplexing and frustrating, because the text I copied on 1297.8 KHz agreed exactly with a transmission that had been made by NSS. How could that signal have been transmitted on 1298.7 KHz if no spurious signals were emanating from NSS? But it's not likely to have been a fraudulent station. What then?

A partial answer came shortly thereafter. As I resumed the search for a useable frequency for the new station, I proceeded downward from 1298.7 KHz, going through 1280 KHz and hearing WFYC, Alma, 1000 watts, 15 miles away, also S9 +40 dB. But on continuing further downward I immediately came across another S9 +40 dB thumping CW signal. I switched on the BFO and discovered the CW was also a five-letter-word coded transmission at about 30 wpm, the same as NSS. I retuned to 1298.7 KHz and the NSS signal was also there, as before. So I cranked up a second receiver to monitor both frequencies simultaneously. Surprise! Both frequencies were showing identical simultaneous transmissions. I then measured the frequency of the lower-frequency signal-1262.2 KHz. Voila! The higher CW

frequency was 17.8 KHz above WFYC's 1280 frequency and the lower CW frequency was 17.8 KHz below WFYC's frequency. A quick reference to the Berne frequency listing showed NSS assigned to 17.8 KHz. This situation now appeared to indicate something very wrong going on at WFYC. The low-frequency world-wide ground-wave signal from NSS was apparently somehow mixing with the signal from WFYC, and producing the 1297.8 and 1262.2 sum and difference frequencies. But what non-linear device in WFYC's system could perform that mixing? Don't know, but I reported this new information to the FCC and that was the last I heard of the situationï¿½untiliï¿½

Fast forward now to 1955. I was now employed as an electrical engineer at the RCA Laboratories, the David Sarnoff Research Center in Princeton, NJ. An assignment took me to Washington, D.C. to attend the annual conference of the NAB, the National Association of Broadcasters. President Dwight D. Eisenhower gave the keynote address. However, one of the technical forums was presented by Jack Young, Chief Engineer of the RCA Broadcast Division. His topic was on the solution of mutual interference between two broadcast stations in Los Angeles, KFI and KNX.

It seems that in a section of the Los Angeles area it was impossible to hear one of these stations without hearing both simultaneously-when tuned to 640 KHz for KFI, both KFI and KNX were heard, and when tuned to 1070 KHz for KNX, both KNX and KFI were heard. Young was assigned the task of determining the cause of the interference and eliminating it. To make a long story short, he discovered that there were ancient and rusty oil well derricks in the affected area. Currents from both KFI and KNX transmissions were being induced in the oil well towers, and the rusty joints were acting as mixers for the two frequencies, producing both the sum and difference frequencies, as well as re-radiating both signals on their original frequencies. When the derricks were removed the interference stopped.

So how is this incident relevant to the NSS problem? Well, at the conclusion of Young's presentation I had the opportunity to talk with him, and because of the similarity of the problems, I told him of my discovery of the NSS signals appearing in the AM broadcast band. Talk about coincidences! He was surprised and excited to learn that I had discovered the NSS problem at WFYC, because he was the one assigned to determine the cause of the problem. He had never been told how that problem originated, or how the problem had been discovered.

He then explained that he had found the ground radial system under the WFYC antenna a horrible mess. Cold solder joints throughout, and far ends of the radials hanging loose in the water of the nearby Pine River, establishing the non-linear mixer condition that resulted in the sum and difference frequencies being generated between the NSS and WFYC signals. Cleaning up the messed-up radials ended the appearance of the NSS signals in the AM broadcast band, thus concluding an interesting journey.

Walt, W2DU

2671. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 19:20:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <40rfl11aiqucfcl5o6tfi1svlhq6v65k40@4ax.com>
Source record: 68568

On Thu, 20 Oct 2005 14:57:21 -0400, Walter Maxwell <walt@w2du.com>
wrote:

>thus concluding an interesting journey.

Hi Walt,

I want to point out that your story has all the elements demanded of a
well written English composition. Some engineers who've been
horse-whipped through bone-head grammar classes bristle at the topic.
However, one simple lesson was probably lost (given it appears so
seldom here) in that punishment. A story (or any posting) needs:
a beginning;
a middle;
an end;
and should be have no spelling errors to speak of.

You've surpassed those simple elements by a consistently engaging in
good yarns.

Thanx,
Richard Clark, KB7QHC, B.A.

2672. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 19:31:58 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11lfs5ljuppr778@corp.supernews.com>
Source record: 68569

No. It would work at 600 MHz.. You went the wrong way.

If you cut ALL dimensions in half it would work at 2.4 GHz.. However, ALL dimensions include element diameters, boom diameters, element lengths and spacing.

Jim

"oldcrow" <oldcrow1@pobox.com> wrote in message
news:1129803465.953662.187300@g47g2000cwa.googlegroups.com...
> Hi!
>
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?
>
> Bob
>

2673. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 19:39:49 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <9LudncWtPbdUb8renZ2dnUVZ_sudnZ2d@comcast.com>
Source record: 68570

Richard Clark wrote:

SNIPPED

story (or any posting) needs:
> a beginning;
> a middle;
> an end;
> and should be have no spelling errors to speak of.
>

I just recently read that a good Preacher should follow a similar structure:

A Good beginning
A Good ending
And as little as possible in the middle

Oh well !!!

2674. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 19:44:23 UTC
From: Larry Benko <xxw0qe@comcast.net>
Message-ID: <gO-dna1xN_gLbsreRVn-pw@comcast.com>
Source record: 68571

Walter Maxwell wrote:
> Messed Up Ground Radials Can Generate Spurious Signals

Walt,

Keep up the stories. They are very interesting....

73,
Larry, W0QE

2675. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 20:16:37 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <reufl1du9kajnabjcpfplssmsk10aui0d2@4ax.com>
Source record: 68572

On Thu, 20 Oct 2005 12:20:35 -0700, Richard Clark <kb7qhc@comcast.net> wrote:

>On Thu, 20 Oct 2005 14:57:21 -0400, Walter Maxwell <walt@w2du.com>
>wrote:
>
>>thus concluding an interesting journey.
>
>Hi Walt,
>
>I want to point out that your story has all the elements demanded of a
>well written English composition. Some engineers who've been
>horse-whipped through bone-head grammar classes bristle at the topic.
>However, one simple lesson was probably lost (given it appears so
>seldom here) in that punishment. A story (or any posting) needs:
> a beginning;
> a middle;
> an end;
>and should be have no spelling errors to speak of.
>
>You've surpassed those simple elements by a consistently engaging in
>good yarns.
>
>Thanx,
>Richard Clark, KB7QHC, B.A.

Richard, your approval of my writings is like receiving a million-dollar jack pot. Words cannot descibe how much your approval as an English major is appreciated.

Walt, W2DU, B.S.

2676. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 20:18:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <oYS5f.5204$tV6.1002@newssvr27.news.prodigy.net>
Source record: 68573

Amos Keag wrote:

> Richard Clark wrote:
>
> SNIPPED
>
> story (or any posting) needs:
>
>> a beginning;
>> a middle;
>> an end;
>> and should be have no spelling errors to speak of.
>>
>
> I just recently read that a good Preacher should follow a similar
> structure:
>
> A Good beginning
> A Good ending
> And as little as possible in the middle
>
> Oh well !!!

I'm a part-time GED teacher. Writing is one of the most difficult
GED tests as it is not multiple choice. We teach the following
format for the writing test.

A beginning - a one paragraph statement of a principle or premise
A middle - three paragraphs based on three major points of argument
An end - A one paragraph conclusion summarizing the three points

The people in Austin who grade the GED writing tests like that format.
--
73, Cecil, http://www.qsl.net/w5dxp

2677. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 20:26:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <j4T5f.5205$tV6.5115@newssvr27.news.prodigy.net>
Source record: 68574

Walter Maxwell wrote:
> Richard, your approval of my writings is like receiving a million-dollar jack
> pot. Words cannot descibe how much your approval as an English major is
> appreciated.

Y'all shudda did ah reright in Suthurn so us Texians kud unnerrstan.
--
73, Cecil, http://www.qsl.net/w5dxp

2678. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 20:44:22 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <i60gl19ibafb986sedjgc3q6tnof9m28uc@4ax.com>
Source record: 68575

On Thu, 20 Oct 2005 20:26:55 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Walter Maxwell wrote:
>> Richard, your approval of my writings is like receiving a million-dollar jack
>> pot. Words cannot descibe how much your approval as an English major is
>> appreciated.
>
>Y'all shudda did ah reright in Suthurn so us Texians kud unnerrstan.

Cecil, shud I huv writ my last 3 emales ta ya in Suthurn so ya kud of unnerrstud em sufeeciently ta reeplie?

Waalltre

2679. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 20:49:01 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <je0gl11upckuamikjjbd0ovgr5ljiubcb6@4ax.com>
Source record: 68476

On Thu, 20 Oct 2005 12:20:35 -0700, Richard Clark <kb7qhc@comcast.net> wrote:

Richard, in my previous post I intended to say that my last story I sent to you was the first rough draft. Unfortunately, my first drafts are disasters, and after cleaning it up I submitted it to QST, who has promised to review it.

Walt

2680. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 20:56:00 UTC
From: nm5k@wt.net
Message-ID: <1129841760.401169.189390@g44g2000cwa.googlegroups.com>
Source record: 68477

Cleaning up the messed-up
radials ended the appearance of the NSS signals in the AM broadcast
band, thus
concluding an interesting journey. .....

I think a lot of the MW garbage I receive on 160m, etc, is
generated much the same way. I've even seen people say
that semi corroded stranded copper wire, even insulated
can cause problems like that. And...I've been seeing stronger
and stronger MW energy here every year it seems... I'm starting
to wonder if the standed wire theory may not be too far fetched,
as most all my wire is stranded, and most is getting some age
on it. I also seen to notice even the water heater or pipes seem
to generate spurious MW energy.. Been driving me crazy the last
few years, and seems to be slowly getting worse.
Not to mention all the other sources of trouble like fences, guy
wires, bad connections, etc.
I don't doubt bad radials could cause that for a minute...I've seen
things like that around here in mildew city from all kinds of bad
connections.. Once had a bad "rf in the shack" problem...Turned
out to be nothing more than corroded/rusted balun hardware at
the antenna feedpoint. Cleaned that up, bingo, all gone. MK

2681. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 21:00:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7AT5f.5209$tV6.4686@newssvr27.news.prodigy.net>
Source record: 68478

Walter Maxwell wrote:
> Cecil, shud I huv writ my last 3 emales ta ya in Suthurn so ya kud of unnerrstud
> em sufeeciently ta reeplie?

Walt, I received your .doc attachment at work and I only work
two days a week so it wasn't until today that I could actually
read it. Sorry, I'll probably reply tonight.
--
73, Cecil, http://www.qsl.net/w5dxp

2682. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 21:10:58 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <fc1gl1tpgllps57shuvd2ptv7jgupij45k@4ax.com>
Source record: 68479

On 20 Oct 2005 13:56:00 -0700, nm5k@wt.net wrote:

>Cleaning up the messed-up
>radials ended the appearance of the NSS signals in the AM broadcast
>band, thus
>concluding an interesting journey. ....
>
>
>I think a lot of the MW garbage I receive on 160m, etc, is
>generated much the same way. I've even seen people say
>that semi corroded stranded copper wire, even insulated
>can cause problems like that. And...I've been seeing stronger
>and stronger MW energy here every year it seems... I'm starting
>to wonder if the standed wire theory may not be too far fetched,
>as most all my wire is stranded, and most is getting some age
>on it. I also seen to notice even the water heater or pipes seem
>to generate spurious MW energy.. Been driving me crazy the last
>few years, and seems to be slowly getting worse.
>Not to mention all the other sources of trouble like fences, guy
>wires, bad connections, etc.
>I don't doubt bad radials could cause that for a minute...I've seen
>things like that around here in mildew city from all kinds of bad
>connections.. Once had a bad "rf in the shack" problem...Turned
>out to be nothing more than corroded/rusted balun hardware at
>the antenna feedpoint. Cleaned that up, bingo, all gone. MK

IMD is going to be the least of our problems as the proliferation of
garbage-generating devices continues.

Soon your toothbrush will have an RFID tag, a switching power supply
and a bluetooth link to the toothpaste dispenser.

The tires on your car have RFID tags that will be queried when you
drive by a cell phone site and your GPS-enabled cell phone will report
your speed and a ticket will emailed to you automatically. No need to
respond though, your credit card has already been billed and your
photo is on the perp website.

2683. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 22:31:59 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dj95st$59g$1@mailhub227.itcs.purdue.edu>
Source record: 68480

Very interesting. Are these stories from a book you may have published?

"Walter Maxwell" <walt@w2du.com> wrote in message
news:kvpfl1dgvg5575f7l0chd91s886nu3anp7@4ax.com...
> Messed Up Ground Radials Can Generate Spurious Signals
>
> In 1948 I was the consulting engineer for the proposed first AM
> broadcast
> station in Mt. Pleasant, Michigan, obtaining a construction permit and
> license
[cut]

2684. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-20 22:56:47 UTC
From: oldcrow <oldcrow1@pobox.com>
Message-ID: <1129849007.052871.187870@g44g2000cwa.googlegroups.com>
Source record: 68481

oldcrow wrote:
> Hi!
>
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?
>
> Bob

Hi Guys:

Thanks for the information. I went the wrong way. I meant I have a 2.4
gHz antenna and want to revamp it for 1.2 gHz operation. Frequency
increases element length decreases. Many thanks for the input.

Bob
K2HML

2685. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 00:08:17 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <95cgl19k523vnom4hvb2u4fdk5ln9qnt3f@4ax.com>
Source record: 68482

On Thu, 20 Oct 2005 17:31:59 -0500, "John N9JG" <john@gotwals.xremovey.com>
wrote:

>Very interesting. Are these stories from a book you may have published?>

No, John, but the story about the FCC RID saving lives by locating lost aircraft over the Pacific has been submitted to QST. We'll have to wait and see if they publish it.

Walt

>"Walter Maxwell" <walt@w2du.com> wrote in message
>news:kvpfl1dgvg5575f7l0chd91s886nu3anp7@4ax.com...
>> Messed Up Ground Radials Can Generate Spurious Signals
>>
>> In 1948 I was the consulting engineer for the proposed first AM
>> broadcast
>> station in Mt. Pleasant, Michigan, obtaining a construction permit and
>> license
>[cut]
>

2686. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 01:05:31 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <y7X5f.4615$V67.947@bignews6.bellsouth.net>
Source record: 68483

Good story - I'm impressed. I struggle trying to copy 20 wpm, and you were copying @ 30 wpm.

I noticed also you referred to frequencies in KHZ. But shouldn't that have been "KC" or for historic accuracy.
;-)

2687. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 01:17:07 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <qiX5f.4617$V67.2456@bignews6.bellsouth.net>
Source record: 68484

"CD" <mr.whatever@gmail.com> wrote in message
news:1129815895.553583.77090@z14g2000cwz.googlegroups.com...
> Hi folks,
>
> I have some questions. If I had two power amps at 15W each, 2 feet
> apart, and they are connected to two similar isotropic antennas, would
> the two far-field patterns add up? How would I calculate the power
> received by a receiver at a certain distance?
>
> I wonder since each antenna will have 0dB gain, then ideally the loss
> that I would need to take into account would just be free space path
> loss, eh? Will the antenna patterns change in terms of beamwidth and
> gain? What other changes/factors do I need to know about?
>

Interesting proposal.
Interaction between the 2 would depend on several factors.
Your only stipulation is that they are 2 ft apart, so...
The frequency would matter and [[Relative]] lengths of coax to each antenna
would also matter.
Its possible you could have a phased array.
Under certain conditions gain could be broadside to the two,
in some other conditions, gain could be endfire.
Its probable, though, that all you have

is a mess.

unless

the builder is

one

of

us.

hehe

2688. Re: Ruggedized antenna for NOAA sats?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 01:39:38 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <6MqdnRaDSoNo28XeRVn-rA@comcast.com>
Source record: 68485

"David Findlay" <david@davsoft.com.au> wrote in message
news:Ufg5f.21830$U51.18187@news-server.bigpond.net.au...
> I'm currently building a VHF APT image receiver for my vehicle, and need a
> suitable antenna design that is rugged enough to survive the rigors of
> being hit by hail and strong winds. It also needs to be relatively compact
> because I need to fit other antennae on the roof too. I was thinking some
> sort of helical. Anyone got suggestions of what would be best? Thanks,
>
> David

The Quadrafilar Helix (QFH, QFHA, QHA) is regarded as a good performing
antenna. Some web pages:

Dutch site for building your own (at 137 MHz - it will be tall).
http://www.kunstmanen.nl/antenna.htm

Steve Blackmore had a "how to" build QFA web page -- but it is currently not
up (you can e-mail him)
http://www.pilotltd.net/

Bill Sykes (G2HCG) and Bob Cobey (G0HPO)
http://www.askrlc.co.uk/

QFH - DIY (European site)
http://homepage.ntlworld.com/phqfh1/qfh_diy_guide.htm

g. beat
w9gb

2689. Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 02:02:06 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_435831fd@fidonet.org>
Source record: 68486

"CD" bravely wrote to "All" (20 Oct 05 06:44:55)
--- on the heady topic of "Two antennas and two power amps"

CD> From: "CD" <mr.whatever@gmail.com>
CD> Xref: core-easynews rec.radio.amateur.antenna:219123

CD> I have some questions. If I had two power amps at 15W each, 2 feet
CD> apart, and they are connected to two similar isotropic antennas, would
CD> the two far-field patterns add up? How would I calculate the power
CD> received by a receiver at a certain distance?

CD> I wonder since each antenna will have 0dB gain, then ideally the loss
CD> that I would need to take into account would just be free space path
CD> loss, eh? Will the antenna patterns change in terms of beamwidth and
CD> gain? What other changes/factors do I need to know about?

I'm not sure of the physics involved but when 2 oscillators of nearly
the same frequency are brought within a certain maximum distance of
each other, their frequency and phase will lock together suddenly. You
can experiment the effect with walkie-talkies. I'll bet the same
effect will occur with your transmitters.

A*s*i*m*o*v

... A seminar on Time Travel will be held 2 weeks ago

2690. Is there an aftermarket quadbander HT Antenna for the following bands?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 02:27:33 UTC
From: Buther Boy <me@privacy.net>
Message-ID: <qdkgl1dt7jn9ig2buuokr3lbqia8dnj91g@4ax.com>
Source record: 68487

6M/2M/220/440. I can find some other variations by Diamond (for
instance), but not the aforementioned from any manufacturer.

Buther Boy

--
Remove the word Spam from my e-mail to contact me...
http://www.PrivacySig.com/SIGbutherboySpam-gmail-black.png
~

2691. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 02:32:36 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <uvhgl113bota3n8k9ec4ahkdh2b7rg4p4j@4ax.com>
Source record: 68488

On Thu, 20 Oct 2005 21:05:31 -0400, "Hal Rosser" <hmrosser@bellsouth.net> wrote:

>Good story - I'm impressed. I struggle trying to copy 20 wpm, and you were
>copying @ 30 wpm.

I learned the code at a very early age. When I was an op at AM BC station WMFJ Daytona Beach in 1940 we had no teletype for gathering news, but had a contract with Press Wireless for copying WCX/WJS Brentwood, NY. I copied the news every day for broadcast. The code speed was 35 to 38 wpm.

>I noticed also you referred to frequencies in KHZ. But shouldn't that have
>been "KC" or for historic accuracy.

I understand your thoughts on this, but if I had used KC in a current piece like this one, someone would surely say I should have used KHz. So either way someone would say I should have used the other form.

Walt

2692. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 02:41:52 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <5vjgl19vliod3d5rk64mmejiv3mh8s4bdn@4ax.com>
Source record: 68489

On 20 Oct 2005 06:44:55 -0700, "CD" <mr.whatever@gmail.com> wrote:

>Hi folks,
>
>I have some questions. If I had two power amps at 15W each, 2 feet
>apart, and they are connected to two similar isotropic antennas, would
>the two far-field patterns add up? How would I calculate the power
>received by a receiver at a certain distance?
>
>I wonder since each antenna will have 0dB gain, then ideally the loss
>that I would need to take into account would just be free space path
>loss, eh? Will the antenna patterns change in terms of beamwidth and
>gain? What other changes/factors do I need to know about?
>
>Thanks!

Simple answer. First simplify. Two power amplifiers only cloud the
issue. We could say they are perfect ones and leave it at that but
it makes no difference if we just leave them out.

Assume those same isotropic radiators are feed by an inphase (0degree)
power splitter. What we have then is a pair of isotropic antennas as
an array. at low frequencies it will appear to be a fat radiator, and
at some frequency it will start to appear directional.

Assuming the frequency is high enough (around 5mhz) it will have
measurable directionality. At various points in space around those
two antennas the measurment antenna will recieve different amounts of
RF with varying phase. Why, the distances are with notable exception
unequal. The only place in space that will have the full radiated
power is a plane center between the two radiators and perpendicular
to the line between the two radiators. All other places there will
be a phase difference due to time/distance from the radiators and
measurement antenna. Those places will recieve less than full radiated
power due to the phase difference. The exact power is related to
antenna seperation and operating frequency.

Now if we pick a frequency, say 123mhz, which has a wavelength of
around 8 feet. The pattern (and gain) of the phased array (two
antennas feed in parallel are a phased array) will be similar to a
dipole in free space. For other frequencies the results will differ.

The exact answer obviously is frequency dependent and position
dependent. The exact field strength at a point in space is power
and location dependent. There is a standard calculation for path loss
that can be applied one you know the "gain" or "loss" of the array of

radiators in a particular direction

Allison
KB!GMX

2693. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 02:50:10 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndlglr2.2i19.bit-bucket@shell.config.com>
Source record: 68490

On Thu, 20 Oct 2005 21:05:31 -0400, Hal Rosser wrote:
>
> I noticed also you referred to frequencies in KHZ. But shouldn't that have
> been "KC" or for historic accuracy.
> ;-)

Well, it should've been "kc/s".
More 'short-handedly': "kcs".
A Hertz is a "cycle per second".

Jonesy W3DHJ

2694. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 03:00:49 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <pcmgl1tk13s9mhldnptt2ablord4okifet@4ax.com>
Source record: 68491

On 21 Oct 2005 02:50:10 GMT, Allodoxaphobia <bit-bucket@config.com> wrote:

>On Thu, 20 Oct 2005 21:05:31 -0400, Hal Rosser wrote:
>>
>> I noticed also you referred to frequencies in KHZ. But shouldn't that have
>> been "KC" or for historic accuracy.
>> ;-)
>
>Well, it should've been "kc/s".
>More 'short-handedly': "kcs".
>A Hertz is a "cycle per second".
>
>Jonesy W3DHJ

Then I should have said KHz/s, or KHzs, right?

Walt

2695. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 04:53:05 UTC
From: mcalhoun@ksu.edu
Message-ID: <dj9s7h$sa8@unix1.cc.ksu.edu>
Source record: 68492

Walter Maxwell <walt@w2du.com> writes:
>Messed Up Ground Radials Can Generate Spurious Signals
>....[snip]....

So can a weak alligator clip on a simple homebrew antenna tuner!

Several years ago I was operating CW while my wife was using a "glass TTY" to a remote computer (that shows how long ago this was), when a policeman (who was NOT a ham) knocked on our door and said I was causing lots of RFI and TVI. After thinking "I'm on CW; who would have been able to identify me?", I called a nearby ham. Yep, he said I was interferring on EVERY frequency he could check (AM, FM, TV, ham, etc.!), and since he couldn't phone me, he had called the police.

So I got back on the air and, with his help, started wiggling everything from the transmitter output toward the antenna. The culprit was a rather weak alligator clip in my homebrew antenna tuner, and that poor joint was producing harmonics from DC to daylight!

--Myron, W0PBV.
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2696. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 04:54:29 UTC
From: mcalhoun@ksu.edu
Message-ID: <dj9sa5$6t6@unix1.cc.ksu.edu>
Source record: 68493

LOTS SNIPPED
>I just recently read that a good Preacher should follow a similar structure:
> A Good beginning
> A Good ending
> And as little as possible in the middle

Or: Stand up.
Speak up.
Shut up!

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2697. 2.4 gHz transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 05:26:03 UTC
From: oldcrow <oldcrow1@pobox.com>
Message-ID: <1129872363.320801.40130@g49g2000cwa.googlegroups.com>
Source record: 68494

Hi:

Can anyone put me on as to where I may purchase a small 2.4 gHz
transmitter for sending video from about 1/2 mile.

Bob

2698. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 05:50:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8b0hl1tmji73n5ej4sjvviq7ofo7sm0i7u@4ax.com>
Source record: 68495

On 20 Oct 2005 23:53:05 -0500, mcalhoun@ksu.edu wrote:

> that poor joint was producing harmonics from DC to daylight!

Hi Myron,

Early Cold Fusion.

73's
Richard Clark, KB7QHC

2699. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 06:41:52 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <bnrO09Dw2IWDFA25@ifwtech.co.uk>
Source record: 68496

Cecil Moore wrote:
>I'm a part-time GED teacher. Writing is one of the most difficult
>GED tests as it is not multiple choice.

What's a "GED"... when translated into English? :-)

Yet another version of 1-2-3:
1. Tell 'em what you're going to tell 'em.
2. Then tell 'em.
3. Tell 'em what you've told 'em.

--
73 from Ian G/GM3SEK

2700. Re: Any experience using a Wonderpole?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 07:25:36 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <31303030383738354358A60045@zetnet.co.uk>
Source record: 68507

Question. Do you guys *not* have surplus military equipment around? Surely!!
A hydrolic or pneumatic mast, or even a handrolic mast makes a good
support for wires and the like.
In the UK we have plenty of ex MOD surplus gear for sale in various
guises. Pump up masts used to mount lights, television stations/film
sets use them, and so do the military for Ahem, mounting antenna's.
Do a web search, you might be surprised what turns up.Dave

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

2701. Re: NYTimes pro-BPL editorial

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 09:46:03 UTC
From: gsm@mendelson.com
Message-ID: <slrndlhe5c.g9v.gsm@cable.mendelson.com>
Source record: 68497

In article <dggfl1h5bkq4painh1i330g1hrb6q0nudl@4ax.com>, Bob Miller wrote:
> Time to write these folks a letter.
>
> http://www.nytimes.com/2005/10/20/opinion/20thur4.html

The author does not have a published email adress. I sent a rather scathing letter to the public editor of the Times, asking him to forward it to the author of the article.

I receiced an automated response, but nothing from a real person.

It really was a "puff" piece, a combination of press releases masqerading as a real article. Articles such as this make one question the quality of the Times as a news source.

Geoff.
--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (077)-424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
You should have boycotted Google while you could, now Google supported
BPL is in action. Time is running out on worldwide radio communication.

2702. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 11:02:31 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <z92dnbZ-HbKsVsXeRVn-vw@comcast.com>
Source record: 68498

Hal Rosser wrote:

SNIPPED
>
> Interesting proposal.
>
> Its probable, though, that all you have is a mess.
>
> unless the builder is one of us.
>
> hehe
>

Then, no matter how it works, it will be debates to death, argued about, condemned, praised, and finally you will be judged a fool.

We do have some strong willed 'Know-it-Alls' who read this list.

We also have some very knowledgeable contributors.

"By their fruits ye shall know them."

2703. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 11:08:56 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <E_-dnXDLfZQsUcXenZ2dnUVZ_tOdnZ2d@comcast.com>
Source record: 68500

Walter Maxwell wrote:

SNIPPED
> I understand your thoughts on this, but if I had used KC in a current piece like
> this one, someone would surely say I should have used KHz. So either way someone
> would say I should have used the other form.
>
> Walt
>

C'mon Walt, you can do better than this 'weak' response.

You could define a new term. One that includes CPS for historical accuracy, and also includes Hz for contemporary usage. What about combining both into a new contraction, 'CZ' ? ;-)

2704. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 11:09:16 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <loSdnQaILue1UcXenZ2dnUVZ_tCdnZ2d@bright.net>
Source record: 68499

It might work better if you HALVE the size. As freq. goes up, size of
elements goes down.

Scott
N0EDV

oldcrow wrote:

> Hi!
>
> If I was to take yagi antenna for 1.2 gHz and then double the length of
> each element. Would that work on 2.4 gHz?
>
> Bob
>

2705. Re: rust?Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 11:15:24 UTC
From: ml <m@di.net>
Message-ID: <m-A158BB.07153221102005@news.verizon.net>
Source record: 68501

In article <oYS5f.5204$tV6.1002@newssvr27.news.prodigy.net>,
Cecil Moore <mycall@arrl.net> wrote:
hmm this kinda makes me wonder about my tvi

as my antenna is near the building master tv antenna

which is pretty rusty espically on the coax to antenna lugs never saw so
much rust surpirzed i can see any station

and it's missing a few elements that broke off

i've been afraid to change it since a new antenna just might be worse
then again it could be much better

wish there was a way to test if the interference was strictly due to
proximity/master amp or tv overload etc or 'sperious emissions' caused
by the tv antennas rust

i need a rust spurious emissions meter

m

2706. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 11:18:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <n846f.3061$dO2.1457@newssvr29.news.prodigy.net>
Source record: 68502

Ian White G/GM3SEK wrote:
> What's a "GED"... when translated into English? :-)

Sorry, that's a USA term - stands for General Education Development.
It's a high school equivalency certificate issued by the state, after
passing a battery of 5 exams, to people who didn't graduate from high
school for whatever reason.
--
73, Cecil http://www.qsl.net/w5dxp

2707. Re:balls? Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 11:21:02 UTC
From: ml <m@di.net>
Message-ID: <m-557B5C.07211921102005@news.verizon.net>
Source record: 68503

In article <sqok23-5ok.ln1@p400bob.personal.cox.net>,
Bob Bob <bob3bob3@cox.net> wrote:

> I am sure that you know about the squishable rubber ball analogy of
> antanna radaition patterns.

what is this theory??

2708. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 11:46:02 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <ZAJ+dhJ6TNWDFAFM@ifwtech.co.uk>
Source record: 68504

Cecil Moore wrote:
>Ian White G/GM3SEK wrote:
>> What's a "GED"... when translated into English? :-)
>
>Sorry, that's a USA term - stands for General Education Development.
>It's a high school equivalency certificate issued by the state, after
>passing a battery of 5 exams, to people who didn't graduate from high
>school for whatever reason.

Thank you - and well done, Cecil, for being part of that program.

--
73 from Ian G/GM3SEK

2709. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 14:07:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0D66f.3082$dO2.1169@newssvr29.news.prodigy.net>
Source record: 68505

Ian White G/GM3SEK wrote:
> Thank you - and well done, Cecil, for being part of that program.

There's a fringe benefit. Some of those kids have pretty
cute grandmas. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

2710. Diamond CP6 vertical HF antenne

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 14:11:48 UTC
From: "Peter J. de Vrijer" <pdevrijer_nospam_@home.nl>
Message-ID: <djasv3svm2@news5.zwoll1.ov.home.nl>
Source record: 68506

Hello,

Has someone experience with the Diamond CP6 6 band HF
antenna. And If so, is it any good?

73's de Peter.

--
| Peter J. de Vrijer e-mail: pdevrijer_nospam_@home.nl
| zendamateurs: pa3ebv_nospam_@amsat.org
|
| And perhaps the horse will learn to sing!

2711. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 14:14:31 UTC
From: K7JEB <k7jeb@no_spam.qsl.net>
Message-ID: <1J66f.3561$i%.2682@fed1read07>
Source record: 68508

Hi Walt,

Enjoyed reading the story. Thanks!

I live about 1/2 mile from a 50 kW broadcast station
on 1360 kHz here in West Phoenix/Glendale and am
within 5 miles of another half-dozen running 5 - 20 kW.
Recently I became quite aware of a bad splice in the
wires on my 80/40-meter dipole through the appearance
of mixing products from the broadcasters all up and
down both bands. Of course, I also saw the problem
on transmit, having one value of SWR at 5 watts and an
entirely different one at 500 watts. I hate to think
of how many "mystery signals" I was generating in the
process of getting that bit of test data! I keep telling
people I am going to cut that bad splice out and patent
it. How many mixer diodes do you know about that can
handle half a kilowatt.

73,
Jim, K7JEB

2712. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 14:23:49 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndlhufm.146g.bit-bucket@shell.config.com>
Source record: 68509

On Thu, 20 Oct 2005 23:00:49 -0400, Walter Maxwell wrote:
> On 21 Oct 2005 02:50:10 GMT, Allodoxaphobia <bit-bucket@config.com> wrote:
>>On Thu, 20 Oct 2005 21:05:31 -0400, Hal Rosser wrote:
>>>
>>> I noticed also you referred to frequencies in KHZ. But shouldn't that have
>>> been "KC" or for historic accuracy.
>>> ;-)
>>
>>Well, it should've been "kc/s".
>>More 'short-handedly': "kcs".
>>A Hertz is a "cycle per second".
>>
>>Jonesy W3DHJ
>
> Then I should have said KHz/s, or KHzs, right?

That would be doubly redundant. :-)
It would be the equivalent to saying "kilo-cycles per second per second".
Some sort of "FM propagation", I suppose.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

2713. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 14:24:06 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <rcuhl1h6mbq760iq1kcmtv5smibiqb7sjf@4ax.com>
Source record: 68510

On Fri, 21 Oct 2005 07:14:31 -0700, "K7JEB" <k7jeb@no_spam.qsl.net> wrote:

>Hi Walt,
>
>Enjoyed reading the story. Thanks!
>
>I live about 1/2 mile from a 50 kW broadcast station
>on 1360 kHz here in West Phoenix/Glendale and am
>within 5 miles of another half-dozen running 5 - 20 kW.
>Recently I became quite aware of a bad splice in the
>wires on my 80/40-meter dipole through the appearance
>of mixing products from the broadcasters all up and
>down both bands. Of course, I also saw the problem
>on transmit, having one value of SWR at 5 watts and an
>entirely different one at 500 watts. I hate to think
>of how many "mystery signals" I was generating in the
>process of getting that bit of test data! I keep telling
>people I am going to cut that bad splice out and patent
>it. How many mixer diodes do you know about that can
>handle half a kilowatt.
>
>73,
>Jim, K7JEB

Interesting, Jim, I believe the US Patent Office is open for business. Looks like I've started something.

Walt

2714. Re: balls? Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 14:30:24 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <1lan23-3vm.ln1@p400bob.personal.cox.net>
Source record: 68511

A rubber ball represents the radiation from an antenna. ie perfectly spherical for an isotropic antenna. You can think of the field strength of the signal as being proprtional to the ball's radius.

When you put gain into the system you take the same amount of "power" and "squash" it into specific directions. You take from the direction you dont want radiation in and put it into the direction you do. You never get something for nothing and gain always implies directivity, even if that directivity is undesirable.

Okay?

ml wrote:
>
> what is this theory??

2715. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 15:04:49 UTC
From: Ian White G/GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Osz72LNROQWDFA0G@ifwtech.co.uk>
Source record: 68512

Cecil Moore wrote:
>Ian White G/GM3SEK wrote:
>> Thank you - and well done, Cecil, for being part of that program.
>
>There's a fringe benefit. Some of those kids have pretty
>cute grandmas. :-)

Do you teach them to spell "incorrigible"?

--
73 from Ian G/GM3SEK

2716. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 16:07:14 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <Sm86f.22543$y_1.3278@edtnps89>
Source record: 68513

> I think a lot of the MW garbage I receive on 160m, etc, is
> generated much the same way. I've even seen people say
> that semi corroded stranded copper wire, even insulated
> can cause problems like that. And...I've been seeing stronger
> and stronger MW energy here every year it seems... I'm starting
> to wonder if the standed wire theory may not be too far fetched,
> as most all my wire is stranded, and most is getting some age
> on it. I also seen to notice even the water heater or pipes seem
> to generate spurious MW energy.. Been driving me crazy the last
> few years, and seems to be slowly getting worse.
> Not to mention all the other sources of trouble like fences, guy
> wires, bad connections, etc.
> I don't doubt bad radials could cause that for a minute...I've seen
> things like that around here in mildew city from all kinds of bad
> connections.. Once had a bad "rf in the shack" problem...Turned
> out to be nothing more than corroded/rusted balun hardware at
> the antenna feedpoint. Cleaned that up, bingo, all gone. MK

I had a similar problem with a W2AU balun. AM stations all over the place. The balun "eye" bolts were severely corroded. Replacing the balun with a stainless steel version eliminated all the AM junk. I notice that W2AU baluns are now advertised as having all "Stainless steel" hardware.

Frank

2717. Re: Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 18:38:38 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <djbcje$d8l$1@engnntp2.cig.mot.com>
Source record: 68514

Debate all you want, here's the scoop.

The answer to your first question (add?) is Yes. That is how multi-element antennas work, regardless of the element shapes.

For your second & third question (how to calc &pattern, beamwidth, gain):

With the described "one transmitter feeding two antenna" system you have nothing more than a phased array. Using two amplifiers is not important as long as you use good techniques connecting everything and match impedances _when both amps are transmitting_. That is if, in the first approximation, you have all the power from each amp going into the respective antenna. I suspect this is a valid assumption for the original poster. I'll speculate that this will be harder with only a splitter (no amps) due to the mutual coupling in the antennas and the impedance change therefrom, but matching things removes this complication.

Gee... do isotropic antennas have any mutual coupling / impedance??
Seems there could be for voltage only. anyway...

The relative phase of the two antenna currents will create the pattern (by summation in the farfield) [[regardless of the shape of the "iron in the sky" as I call it]] I believe (and Lew can corroborate or dispel) you can use EZNEC to get an idea what will happen by looking only at the horizontal plane, or vertical view of two verticals; 1/4 wave should do. This is the "plan view" or the view from above, where the verticals look like two dots. This should represent the view of the two iso's that looks the same (two dots).

With equal power and in phase current, you'll have a figure eight with the nulls broad-side and the depth of the nulls will depend on the frequency... starting from lower freq, at a frequency where the spacing is 1/2 wave, the nulls are deepest and as frequency increases, the pattern will develop more and more lobes/nulls.
IF the two antenna currents/powers are not the same, you should also be able to model this in EZNEC as described and the nulls will not go to zero as expected (well, by me at least).

Looking at the two iso's from the endfire direction (the two iso's look like one dot)..lemme think here...
Oh yea, you'll see a round pattern (perfect circle) of varying diameter as you vary the relative phase/amplitude. This will be equivalent to looking at it at only one angle from the plane equidistant from the two dots. Hard to describe, easy to imagine. As you change the angle of this cone (similar to viewing pattern at differing radiation angles), the circle also changes diameter.

SO... The "gain" will vary depending on Frequency, relative phase of the
two feeds and relative power of the two feeds. I don't thing path loss is
considered in pattern calculations since it is the same for all components
in the field by the time you get to any distance.
Post some pix.

OK, dispute away, I'm done.

Any comments Lew?

Regards, Steve, K,9.D;C'I

"CD" <mr.whatever@gmail.com> wrote in message
news:1129815895.553583.77090@z14g2000cwz.googlegroups.com...
> Hi folks,
>
> I have some questions. If I had two power amps at 15W each, 2 feet
> apart, and they are connected to two similar isotropic antennas, would
> the two far-field patterns add up? How would I calculate the power
> received by a receiver at a certain distance?
>
> I wonder since each antenna will have 0dB gain, then ideally the loss
> that I would need to take into account would just be free space path
> loss, eh? Will the antenna patterns change in terms of beamwidth and
> gain? What other changes/factors do I need to know about?
>
> Thanks!
>

2718. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 19:04:09 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <djbe3aeef1@engnntp2.cig.mot.com>
Source record: 68516

I'll only say that it is interesting that the first comments were about the grammar not the content.

Interesting story Walt. That's what I call an ending!

Brief story 1
The apollo recovery ships had problems in the radars from high power HF transmitters and the rusty deck railing chains.

Brief story 2...well not so brief.
To solve a problem in a 150MHz car telephone in a Caddy and one on a motorcycle, I developed a method for finding what I dubbed "environmental desense" of a similar nature. This amounted to the transmitter being modulated, in its _field_ by near-by noisy joints in the car body or the motorcycle seat springs. This produced virtual noise sidebands on the transmitter. This "modulation" extended out to the receiver frequency. The receiver used the same antenna, thus easily picking up this new "noise modulation.
This is an extension of what I had called "the Screwdriver Effect" in my early 2-way repair days. you are listening to a rather close transmitter (or maybe not so close) and you simply rub a screwdriver across another nearby piece of metal and you hear noise on the received signal. Same effect - field modulation.
To explain in more detail...
1- EVERYTHING conductive is an antenna (receiving).
2- Everything has RF current in it from every transmitter (even YOU).
3- These "everythings" therefore produce small RF fields of their own, from these currents.
4- These fields sum with the original field.
5- If two of these "everythings" come into contact, there can be a change in current due to the new physical arrangement (current through the new connection)
6- This change also changes the resulting fields from the "Everythings"
7- This changes the total resulting field.
8- this is just like a change in the original field and just like a change in the transmitted signal.
9- SO... this is received just like some similar modulation on the original transmitter. Try it, but the screwdriver part has to be near the receive antenna and the main signal not so strong that the noise is too far down. 2M FM may the best place to try.

Noisy screwdriver contact...noisy received signal

73, Steve, K,9.D;C'I

"Walter Maxwell" <walt@w2du.com> wrote in message
news:kvpfl1dgvg5575f7l0chd91s886nu3anp7@4ax.com...
> Messed Up Ground Radials Can Generate Spurious Signals
>
> In 1948 I was the consulting engineer for the proposed first AM
broadcast
> station in Mt. Pleasant, Michigan, obtaining a construction permit and
license
> for WCEN, 500 watts on 1150 KHz. Using a National HRO receiver, I was
performing
> a hands-on search for an available frequency for the new station, when I
> encountered an interesting and unusual signal that was entirely out of
place in
> the AM broadcast band-a CW Morse-code station illegally transmitting
> five-letter-word code groups at 30 words per minute. The illegal signal
was S9
> +40 dB on 1297.8 KHz, producing a 2200 Hz beat-note with the 1300 KHz
frequency
> of WOOD, Grand Rapids, thus producing a an audible CW signal with the
receiver
> BFO disabled.
> The format of the coded messages appeared to be military, IDing as
NSS. We
> know that NSS is the flagship station of the U.S. Navy in Annapolis, MD,
but in
> the AM broadcast band? It appeared that either an NSS transmitter was
producing
> a spurious emission, or a station using NSS as a fraudulent call sign was
> operating clandestinely in the AM broadcast band. I deemed it important to
find
> out which.
> As a former FCC monitoring officer at the Allegan, Michigan
monitoring
> station, the next step was to report the situation to the Allegan station.
> Although Allegan was 90 airline miles away, the monitoring personnel there
could
> not hear the spurious signal, even though it was S9 +40 dB at Mt.
Pleasant. I
> let the FCC monitors hear the signal through the telephone, but they still
heard
> nothing on their receivers tuned to 1297.8 KHz. Thus the signal must be of
local
> origin near Mt. Pleasant, and not from NSS. However, to be on the safe
side, FCC
> notified the Navy of the spurious signals, and the NSS operators began
combing
> all their transmitters for spurious signals, and found none. The situation
is
> now becoming even more strange.
> I then copied five minutes of the coded text and sent a copy to the
FCC,

> who relayed it to NSS for comparison to their transmissions. The situation
is
> now both perplexing and frustrating, because the text I copied on 1297.8
KHz
> agreed exactly with a transmission that had been made by NSS. How could
that
> signal have been transmitted on 1298.7 KHz if no spurious signals were
emanating
> from NSS? But it's not likely to have been a fraudulent station. What
then?
> A partial answer came shortly thereafter. As I resumed the search for
a
> useable frequency for the new station, I proceeded downward from 1298.7
KHz,
> going through 1280 KHz and hearing WFYC, Alma, 1000 watts, 15 miles away,
also
> S9 +40 dB. But on continuing further downward I immediately came across
another
> S9 +40 dB thumping CW signal. I switched on the BFO and discovered the CW
was
> also a five-letter-word coded transmission at about 30 wpm, the same as
NSS. I
> retuned to 1298.7 KHz and the NSS signal was also there, as before. So I
cranked
> up a second receiver to monitor both frequencies simultaneously. Surprise!
Both
> frequencies were showing identical simultaneous transmissions. I then
measured
> the frequency of the lower-frequency signal-1262.2 KHz. Voila! The higher
CW
> frequency was 17.8 KHz above WFYC's 1280 frequency and the lower CW
frequency
> was 17.8 KHz below WFYC's frequency. A quick reference to the Berne
frequency
> listing showed NSS assigned to 17.8 KHz. This situation now appeared to
indicate
> something very wrong going on at WFYC. The low-frequency world-wide
ground-wave
> signal from NSS was apparently somehow mixing with the signal from WFYC,
and
> producing the 1297.8 and 1262.2 sum and difference frequencies. But what
> non-linear device in WFYC's system could perform that mixing? Don't know,
but I
> reported this new information to the FCC and that was the last I heard of
the
> situation.until.
> Fast forward now to 1955. I was now employed as an electrical
engineer at
> the RCA Laboratories, the David Sarnoff Research Center in Princeton, NJ.
An

> assignment took me to Washington, D.C. to attend the annual conference of
the
> NAB, the National Association of Broadcasters. President Dwight D.
Eisenhower
> gave the keynote address. However, one of the technical forums was
presented by
> Jack Young, Chief Engineer of the RCA Broadcast Division. His topic was on
the
> solution of mutual interference between two broadcast stations in Los
Angeles,
> KFI and KNX.
> It seems that in a section of the Los Angeles area it was impossible
to
> hear one of these stations without hearing both simultaneously-when tuned
to 640
> KHz for KFI, both KFI and KNX were heard, and when tuned to 1070 KHz for
KNX,
> both KNX and KFI were heard. Young was assigned the task of determining
the
> cause of the interference and eliminating it. To make a long story short,
he
> discovered that there were ancient and rusty oil well derricks in the
affected
> area. Currents from both KFI and KNX transmissions were being induced in
the oil
> well towers, and the rusty joints were acting as mixers for the two
frequencies,
> producing both the sum and difference frequencies, as well as re-radiating
both
> signals on their original frequencies. When the derricks were removed the
> interference stopped.
> So how is this incident relevant to the NSS problem? Well, at the
> conclusion of Young's presentation I had the opportunity to talk with him,
and
> because of the similarity of the problems, I told him of my discovery of
the NSS
> signals appearing in the AM broadcast band. Talk about coincidences! He
was
> surprised and excited to learn that I had discovered the NSS problem at
WFYC,
> because he was the one assigned to determine the cause of the problem. He
had
> never been told how that problem originated, or how the problem had been
> discovered.
> He then explained that he had found the ground radial system under
the WFYC
> antenna a horrible mess. Cold solder joints throughout, and far ends of
the
> radials hanging loose in the water of the nearby Pine River, establishing
the

> non-linear mixer condition that resulted in the sum and difference
frequencies
> being generated between the NSS and WFYC signals. Cleaning up the
messed-up
> radials ended the appearance of the NSS signals in the AM broadcast band,
thus
> concluding an interesting journey.
>
> Walt, W2DU
>

2719. Re: rust?Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 19:29:05 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <djbfi1feu1@engnntp2.cig.mot.com>
Source record: 68519

"ml" <m@di.net> wrote in message
news:m-A158BB.07153221102005@news.verizon.net...
> In article <oYS5f.5204$tV6.1002@newssvr27.news.prodigy.net>,
> Cecil Moore <mycall@arrl.net> wrote:
> hmm this kinda makes me wonder about my tvi
>
> as my antenna is near the building master tv antenna

Mmmmm Bad sign from the beginning. This opens up a large possibility box.
IM , spurious, overload, you name it.
73, Steve, K,9.D;C'I

2720. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 19:30:32 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <djbfkofgc1@engnntp2.cig.mot.com>
Source record: 68520

Yous guys krack me up.
Steve

"Walter Maxwell" <walt@w2du.com> wrote in message
news:i60gl19ibafb986sedjgc3q6tnof9m28uc@4ax.com...
> On Thu, 20 Oct 2005 20:26:55 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
> >Walter Maxwell wrote:
> >> Richard, your approval of my writings is like receiving a
million-dollar jack
> >> pot. Words cannot descibe how much your approval as an English major is
> >> appreciated.
> >
> >Y'all shudda did ah reright in Suthurn so us Texians kud unnerrstan.
>
> Cecil, shud I huv writ my last 3 emales ta ya in Suthurn so ya kud of
unnerrstud
> em sufeeciently ta reeplie?
>
> Waalltre

2721. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 19:35:39 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <djbfubfpi1@engnntp2.cig.mot.com>
Source record: 68518

The singular (implied plural) was well accepted.

100 kc

Go up 3 kc, please

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrndlglr2.2i19.bit-bucket@shell.config.com...
> On Thu, 20 Oct 2005 21:05:31 -0400, Hal Rosser wrote:
> >
> > I noticed also you referred to frequencies in KHZ. But shouldn't that
have
> > been "KC" or for historic accuracy.
> > ;-)
>
> Well, it should've been "kc/s".
> More 'short-handedly': "kcs".
> A Hertz is a "cycle per second".
>
> Jonesy W3DHJ

2722. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 19:38:40 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <lcgil1de7qa6c59vpqlgfrkk6lsk3b90ov@4ax.com>
Source record: 68515

On 21 Oct 2005 14:23:49 GMT, Allodoxaphobia <bit-bucket@config.com> wrote:

>On Thu, 20 Oct 2005 23:00:49 -0400, Walter Maxwell wrote:
>> On 21 Oct 2005 02:50:10 GMT, Allodoxaphobia <bit-bucket@config.com> wrote:
>>>On Thu, 20 Oct 2005 21:05:31 -0400, Hal Rosser wrote:
>>>>
>>>> I noticed also you referred to frequencies in KHZ. But shouldn't that have
>>>> been "KC" or for historic accuracy.
>>>> ;-)
>>>
>>>Well, it should've been "kc/s".
>>>More 'short-handedly': "kcs".
>>>A Hertz is a "cycle per second".
>>>
>>>Jonesy W3DHJ
>>
>> Then I should have said KHz/s, or KHzs, right?
>
> _That_ would be doubly redundant. :-)
> It would be the equivalent to saying "kilo-cycles per second per second".
> Some sort of "FM propagation", I suppose.
>
>Jonesy

As I see it, Jonesy, kc = kilocycles, but we think of it as kilocycles per sec. kc/s = kilocycles/sec, which accurately specifies it as such, so it is not redundant.

Therefore, KHz is also proper, but KHz/s more accurately specifies it, and is also not redundant.

But aren't we being a little picky picky?

Walt

2723. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 19:39:18 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <djbg56$ft0$1@engnntp2.cig.mot.com>
Source record: 68522

"K7JEB" <k7jeb@no_spam.qsl.net> wrote in message
news:1J66f.3561$i%.2682@fed1read07...
> Hi Walt,
>
> Enjoyed reading the story. Thanks!
>
> ...a bad splice in the
> wires on my 80/40-meter dipole through the appearance
> of mixing products from the broadcasters all up and
> down both bands. ....

> How many mixer diodes do you know about that can
> handle half a kilowatt.
>
> 73,
> Jim, K7JEB
>

Probably all the ones that are on about 20% of all the ham antennas in the
world... (:-)
73, Steve, K,9.D;C'I

2724. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 19:47:58 UTC
From: Bob Spooner <rls19@psu.edu>
Message-ID: <djbglf$11ja$1@f04n12.cac.psu.edu>
Source record: 68517

"Walter Maxwell" <walt@w2du.com> wrote in message
news:lcgil1de7qa6c59vpqlgfrkk6lsk3b90ov@4ax.com...
> On 21 Oct 2005 14:23:49 GMT, Allodoxaphobia <bit-bucket@config.com> wrote:
>
> As I see it, Jonesy, kc = kilocycles, but we think of it as kilocycles per
sec.
> kc/s = kilocycles/sec, which accurately specifies it as such, so it is not
> redundant.
>
> Therefore, KHz is also proper, but KHz/s more accurately specifies it, and
is
> also not redundant.
>
> But aren't we being a little picky picky?
>
> Walt

Actually, the Hertz is is defined as a unit of frequency equal to one cycle per second. That would mean the KHz/s is redundant. But you're right - it is picky unless the meaning isn't clear from the context.

Bob

2725. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 20:17:00 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <djbidisdn1@news.service.uci.edu>
Source record: 68521

Bob Spooner wrote:

> "Walter Maxwell" <walt@w2du.com> wrote in message
> news:lcgil1de7qa6c59vpqlgfrkk6lsk3b90ov@4ax.com...
>
>>On 21 Oct 2005 14:23:49 GMT, Allodoxaphobia <bit-bucket@config.com> wrote:
>>
>>As I see it, Jonesy, kc = kilocycles, but we think of it as kilocycles per
>
> sec.
>
>>kc/s = kilocycles/sec, which accurately specifies it as such, so it is not
>>redundant.
>>
>>Therefore, KHz is also proper, but KHz/s more accurately specifies it, and
>
> is
>
>>also not redundant.
>>
>>But aren't we being a little picky picky?
>>
>>Walt
>
>
> Actually, the Hertz is is defined as a unit of frequency equal to one cycle
> per second. That would mean the KHz/s is redundant.

KHz/s is a sweep rate.

ac6xg

2726. QSL-ware - VOACAP - interface and tools

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 20:32:48 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <11lik3sjmq1jcc7@corp.supernews.com>
Source record: 68523
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

Greetings,

You are invited to download and use the new version of WinCAP Wizard. The default download is known as QSL-ware. Which basically means freeware. <G>

This QSL-ware version provides unlimited point-to point and NCDXF beacon predictions, prefix search, numerous prediction views and more.

www.taborsoft.com

The registered version adds coverage analysis and user batch prediction modes. A 60-day trial key is available upon request.

If you use a competing tool, not to worry, they can surely add a few of the new features. <VBG>

Cheers,
KU5S
--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.

2727. Re: Sandpiperaerials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 20:42:37 UTC
From: Iain Kelly <no.spam@m0pcb.co.uk>
Message-ID: <djbjru$l68$1@pump1.york.ac.uk>
Source record: 68524

Thierry wrote:
> Hi,
>
> Has someone out there already used or do you know the company
> http://www.sandpiperaerials.co.uk/
> They seems to sale portable antennas of quite good quality, vertical, loop,
> beam etc . But never heard from...
> This is US friend living in Kuweit who provided me the link.
>
> Thanks
> Thierry, ON4SKY

I have seen that company attend a number of rallies/shows in this country, and they seem to be reputable. I have no personal experience of the quality of their products, though I have seen and heard good reviews.

Hope that helps,

73, Iain M0PCB/P

2728. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 21:35:19 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndlinon.1en9.bit-bucket@shell.config.com>
Source record: 68525

On Fri, 21 Oct 2005 14:35:39 -0500, Steve Nosko wrote:
> The singular (implied plural) was well accepted.
>
> 100 kc
>
> Go up 3 kc, please

It is _not_ a pluralization. It is k(ilo)c(cycles-per-)s(econd).
The scientific notation for "X per Z" is "X/Z". Ergo, "cycles per
second" (cps) is "c/s". Thousand(s) of cycles per second is "kc/s".
The crude shorthand commonly used in ham radio is (was) "kcs"(, or "mcs")
-- probably due to morse code usage influence.
The pedantic argument back in the Olde Days was that a QSL card
confirming a QSO on "7180 kc" was wrong. (Just as "73s" on the
same QSL card was {and still is} "wrong".)

"7180 kc" is seven million one hundred and eighty thousand cycles.
Period. It could be 2 cycles today, 17 tomorrow, 6 the day after,
400 next week -- and, so on until the total number of cycles are
accumulated.

It's not until the "per Unit Of Time" is specified that we have
a _frequency_ .

(But, then, I think the QSL card should've stated
"41.783 Meter Wavelength".)

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

2729. Re: tnx balls? Two antennas and two power amps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 21:43:43 UTC
From: ml <m@di.net>
Message-ID: <m-9909DF.17435421102005@news.verizon.net>
Source record: 68326

In article <1lan23-3vm.ln1@p400bob.personal.cox.net>,
Bob Bob <bob3bob3@cox.net> wrote:

> A rubber ball represents the radiation from an antenna. ie perfectly
> spherical for an isotropic antenna. You can think of the field strength
> of the signal as being proprtional to the ball's radius.
>
> When you put gain into the system you take the same amount of "power"
> and "squash" it into specific directions. You take from the direction
> you dont want radiation in and put it into the direction you do. You
> never get something for nothing and gain always implies directivity,
> even if that directivity is undesirable.
>
> Okay?
>
> ml wrote:
> >
> > what is this theory??

Ahh yeah ok i kinda knew this but spazed out thank you for helping
appreciate it

m

2730. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-21 21:45:23 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <435960c1$1_2@newsfeed.slurp.net>
Source record: 68327

>> Actually, the Hertz is is defined as a unit of frequency equal to one
>> cycle
>> per second. That would mean the KHz/s is redundant.

"K" means Kelvin (a unit of temperature), so "KHz" is incorrect, also. The correct form is "kHz."

2731. White Space

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 02:05:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bf6jl1tp13cq7bhflghf7ro7f4m18a86t0@4ax.com>
Source record: 68328

Hi All,

As I've so freely wished for new services for Amateur use, such as RADAR, and by extension HAARP, events seem to be anticipating me, or at least my event horizon of imagination is growing. From the New York Times:

>A Bill Advancing Digital TV Is Approved by Senate Panel
>By STEPHEN LABATON
>Published: October 21, 2005
...
>Another behind-the-scenes fight has been brewing over how the
>government should allocate the so-called "white space" on the
>spectrum, which viewers now see on those channels that do not
>carry programs, like Channel 3 in New York. Some technology
>and Internet service providers, along with consumer groups,
>have petitioned the Federal Communications Commission to
>approve a new generation of unlicensed wireless devices to
>make use of the white space.
>
>Their efforts are opposed by the broadcasters, who say that those
>devices would interfere with broadcasting transmission.
>
>The transition has also prompted lobbying by the equipment makers,
>including Cisco Systems and Intel, and by software companies like Microsoft,
>which has urged lawmakers to preserve a significant amount of the spectrum
>for free or unlicensed use. Several lobbyists said this week they had heard
>from lawmakers that in recent months Bill Gates, Microsoft's co-founder,
>had pressed the issue with members of Congress.
>
>A spokeswoman in the Washington office of Microsoft, Ginny Terzano,
>declined to provide details about Mr. Gates's conversations with lawmakers.
>She said the company was not seeking a provision for unlicensed spectrum
>use in the bill adopted on Thursday but generally favors such unlicensed spectrum.

What do I imagine? Amateur TV Broadcasting! Remember the ill-fated neighborhood FM? Interest groups sank that idea like a rock in the ocean. What does "Amateur" mean in this context? Discard the notion of transmitting only to exchange QSL cards and start pumping music and game shows produced at the community level. The prohibition against transmitting entertainment is a antediluvian appeal to the 1930s. "Amateur" in this context means non-commercial. Not even appeals for donations. Do it on your own or go back to vaudeville.

My notion to re-invigorate Amateur radio is to expand neighborhood TV transmission (small service area, AKA Pirate TV) making Hams the non-profit extension of the FCC for site review and inspection. Boost the technical requirements (sort of a low grade General Radiotelephone) for non-profit transmission testing and monitoring. Develop an association for granting area and frequency coverage (just like repeater associations have been doing for years) to co-ordinate allocations. There should even be provisions for networking.

73's
Richard Clark, KB7QHC

2732. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 04:13:05 UTC
From: Mike <room4me@rocketmail.com>
Message-ID: <WdudndxCM9eZIcTeRVn-iQ@comcast.com>
Source record: 68329

A Hall effect device comes to mind. They're relatively inexpensive and should be available in surface mount technology. They are used in the automotive industry for things like engine rpm, throttle position etc. so the technology is robust. There would be a small amount of power consumption. The reed switch already mentioned is the simplest, draws no power when open but they are more prone to shock damage than a solid state device.

Mike

"fh03" <fh03.1x6krk@news.radiobanter.com> wrote in message news:fh03.1x6krk@news.radiobanter.com...
>
> Hello guys,
>
> I am building an RF tag that will transmit some data using a
> microcontroller and a 433 Mhz transmitter. But I do not want to place
> any buttons on the device nor have it be on at all times. So I was
> wondering is there a way to create a magnetic field at the source to
> generate an induced current in this tag to perhaps flip a switch to
> turn on the internal battery? And once the tag is out of the fields
> range the switch will open again?
>
> I know systems such as the Sunpass or other electronic toll payments
> use something like this.
>
> If anyone has any information on how this can be done, please help.
>
> Thanks.
>
>
> --
> fh03

2733. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 08:18:53 UTC
From: Ian Wade <g3nrw@yahoo.co.uk>
Message-ID: <7zzhegIZXfWDFwTH@ntlworld.com>
Source record: 68330

In message <i60gl19ibafb986sedjgc3q6tnof9m28uc@4ax.com>, Walter Maxwell
<walt@w2du.com> writes
>On Thu, 20 Oct 2005 20:26:55 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>Walter Maxwell wrote:
>>> Richard, your approval of my writings is like receiving a
>>>million-dollar jack
>>> pot. Words cannot descibe how much your approval as an English major is
>>> appreciated.
>>
>>Y'all shudda did ah reright in Suthurn so us Texians kud unnerrstan.
>
>Cecil, shud I huv writ my last 3 emales ta ya in Suthurn so ya kud of
>unnerrstud
>em sufeeciently ta reeplie?
>
>Waalltre

Reminds me of my very first trip to the United States back in 1972. I
was working at a computer company in Massachusetts, and while I was
there I gave a training course to a group of Texans from the US
airforce.

It took us nearly a week to get in sync, what with their Texurs drahl
an' my dulcet tones from the old British Empaah, don't y' know ... :-))

They were a great bunch of guys, though. Happy days!

--
73
Ian, G3NRW

g3nrw@yahoo.co.uk

2734. Re: 2.4 gHz transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 08:40:22 UTC
From: Ian Wade <g3nrw@yahoo.co.uk>
Message-ID: <mDjmS8KatfWDFwT9@ntlworld.com>
Source record: 68331

In message <1129872363.320801.40130@g49g2000cwa.googlegroups.com>,
oldcrow <oldcrow1@pobox.com> writes
>Hi:
>
>Can anyone put me on as to where I may purchase a small 2.4 gHz
>transmitter for sending video from about 1/2 mile.
>
>Bob
>

http://www.mobicomm.net
Tel: +31 70 397 49 81
sales@mobicomm.com

http://stores.ebay.com/MobiComm

--
73
Ian, G3NRW

g3nrw@yahoo.co.uk

2735. Re: Sandpiperaerials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 09:19:59 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <3vn6f.1450$JI3.423@newsfe4-gui.ntli.net>
Source record: 68332

"Iain Kelly" <no.spam@m0pcb.co.uk> wrote in message
news:djbjru$l68$1@pump1.york.ac.uk...
> Thierry wrote:
> > Hi,
> >
> > Has someone out there already used or do you know the company
> > http://www.sandpiperaerials.co.uk/
> > They seems to sale portable antennas of quite good quality,
vertical, loop,
> > beam etc . But never heard from...
> > This is US friend living in Kuweit who provided me the link.
> >
> > Thanks
> > Thierry, ON4SKY
>
> I have seen that company attend a number of rallies/shows in this
> country, and they seem to be reputable. I have no personal
experience of
> the quality of their products, though I have seen and heard good
reviews.
>
> Hope that helps,
>
> 73, Iain M0PCB/P

The two well known amateur radio antenna manufacturers in the UK are Sandpiper and Moonraker. Both are small family owned and run businesses which make a reasonable product at a fair price for a specific market. I would not necessarily say that they are whiz-kids in antenna design theory - in fact I somehow doubt that they actually design them themselves (my sincere apologies to either/both if I am wrong) - but they both know what they are talking about from a construction and use standpoint.

--
Woody

harrogate2 at ntlworld dot com

2736. Re: Sandpiperaerials

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 09:36:42 UTC
From: Iain Kelly <no.spam@m0pcb.co.uk>
Message-ID: <djd177sps1@pump1.york.ac.uk>
Source record: 68333

harrogate2 wrote:
> The two well known amateur radio antenna manufacturers in the UK are
> Sandpiper and Moonraker. Both are small family owned and run
> businesses which make a reasonable product at a fair price for a
> specific market. I would not necessarily say that they are whiz-kids
> in antenna design theory - in fact I somehow doubt that they actually
> design them themselves (my sincere apologies to either/both if I am
> wrong) - but they both know what they are talking about from a
> construction and use standpoint.
>
>
> --
> Woody
>
> harrogate2 at ntlworld dot com

I'm certainly sceptical of Moonraker, in both build quality and technical knowledge! I understand that sandpiper will actually construct custom antennas on a one-off basis, or in fact scale some of their range for different bands, I'm not sure if any other manufacturers will do that or not.

Saying that I've had no experience of sandpiper, although the GM3VLB mini-delta looks reasonable, and is not too expensive! I've had some minor things from Moonraker, and the build quality left something to be desired, but that is only a very limited experience of the company.

73, Iain M0PCB/P

2737. Re: EZNEC Lengths for 15 M Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 13:07:33 UTC
From: jgboyles@aol.com
Message-ID: <1129986453.186411.34010@g44g2000cwa.googlegroups.com>
Source record: 68334

Rockinghorse Winner wrote:
> I was checking the lengths for a 15 M dipole up 18 feet and the EZNEC
> calculated length was about 10% longer than using 468/F. I was wondering if
> the EZNEC calculation takes other factors into consideration and what these
> may be? Thanks alot.
>
>
>
>
> CUL8R
>
>
>
> R*Horse
>
>

>
>
> "Take a look behind you - upstream - now you begin to
> recognize this country, don't you?"
>
> "Yes, I do recognize it now. It is the most wonderful
> thing I ever heard of; by a long shot the most
> wonderful - and unexpected."
>
> Mark Twain
> Life on the Mississippi
>
>
>
> http://rwinner.blogspot.com
Hi RH, The proximity to ground, the ground type, and the length will
be the factors that determine the source impedance of the dipole. I
just ran a dipole cut for 21.3 Mhz by the formula, 18' up over real
ground and found it to be off by 3%. Moved it up to 36' and it was off
by 1%. Your 10% sounds a bit high. The conductor size of a wire
dipole will have some effect at 15m, but I did not try anything
different than #12 wire.
Gary N4AST

2738. Re: EZNEC Lengths for 15 M Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 19:59:07 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <BrKdnToGzv5eBMfeRVn-sA@comcast.com>
Source record: 68335

<jgboyles@aol.com> wrote in message
news:1129986453.186411.34010@g44g2000cwa.googlegroups.com...
>
> Rockinghorse Winner wrote:
>> I was checking the lengths for a 15 M dipole up 18 feet and the EZNEC
>> calculated length was about 10% longer than using 468/F. I was wondering
>> if
>> the EZNEC calculation takes other factors into consideration and what
>> these
>> may be? Thanks alot.
>>
>>
>>
>>
>> CUL8R
>>
>>
>>
>> R*Horse
>>
>>
>
>>
>>
>> "Take a look behind you - upstream - now you begin to
>> recognize this country, don't you?"
>>
>> "Yes, I do recognize it now. It is the most wonderful
>> thing I ever heard of; by a long shot the most
>> wonderful - and unexpected."
>>
>> Mark Twain
>> Life on the Mississippi
>>
>>
>>
>> http://rwinner.blogspot.com
> Hi RH, The proximity to ground, the ground type, and the length will
> be the factors that determine the source impedance of the dipole. I
> just ran a dipole cut for 21.3 Mhz by the formula, 18' up over real
> ground and found it to be off by 3%. Moved it up to 36' and it was off
> by 1%. Your 10% sounds a bit high. The conductor size of a wire
> dipole will have some effect at 15m, but I did not try anything
> different than #12 wire.

> Gary N4AST
>
Just to be different, I tried #18 wire. Using 468/f gives a length of 21.9 feet at 21.3 MHz. According to EZneck, this is resonant at about 22 MHz. A length of 22.4 feet gave resonance at just a shade above 21.3 MHz. Making the wire 10% long put the resonance below 21 MHz. All at 18 feet.

I ran SWR from 21 to 22 MHz, with a step size of .05. Number of segments was 19.

Tam/WB2TT

2739. How to receive out of band signals..

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-22 20:56:28 UTC
From: SOMMERGIBILE <nomailtosp@mmers.it.invalid>
Message-ID: <435aa9a1$0$8479$5fc30a8@news.tiscali.it>
Source record: 68336

by an VHF or UHF radio and other projects on:
http://web.tiscali.it/am2zy/index.html

2740. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 01:44:25 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <435AEAF9.86D30898@sympatico.ca>
Source record: 68337

Walter,

that brings back some old memories.

In the early 1960s I was, for a while, in the control tower at RCAF Greenwood Nova Scotia. Our ATC voice hotline linking several facitilites in the maritimes had a constant background of CW from NAA in Cutler, Maine.

A couple of years later I was stationed in Prince Edward Island where the local station, CJRW 1240, was about the same strength as a station in New Brunswick, CKCW 1220. In the background there always seemed to be a discernabile signal from NAA. I always assumed that this was due to the 20 kHz difference mixing with the 24 kHz of NAA and giving a very steady, but rather high pitched for CW, 4 kHz beat.

While in Greenwood it was also common to hear the Grennwood NDB (ZX) while in the car; since the beacon was on the IF commonly used in automobile radios in those days - 248 kHz? or something close.

The last one was really wierd. Some days when the weather was lousy we would hear an intermittent and badly distorted BBC signal on a VHF FM frequency. The technicians were convinced we were either crazy or drunk. Eventually it turned out to be a mixing problem involving two VHF frequencies and a BBC World Service station on the 15 MHz SWBC band. It only happened in bad weather because one of the mixing frequencies was the GCA (Ground Controlled Approach) frequency which was only really active in bad weather.

I don't reallyl think any of the above had anything to do with radials, but they triggered some long ago memories.

Dave

2741. Re: Messed-Up Radials Can Generate Spurious Emissions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 02:10:45 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <esrll1hh5oari6mpa0h4kj2gn48dgaf2vs@4ax.com>
Source record: 68338

On Sat, 22 Oct 2005 21:44:25 -0400, Dave Holford <holford@sympatico.ca> wrote:

>Walter,
>
>that brings back some old memories.
>
>In the early 1960s I was, for a while, in the control tower at RCAF Greenwood Nova
>Scotia. Our ATC voice hotline linking several facitilites in the maritimes had a
>constant background of CW from NAA in Cutler, Maine.

Hi Dave, that was probably because of the relatively short distance between
Cutler and Greenwood with respect to the VLF of NAA, along with its very high
power ground-wave signal. Incidentally, In the pre-war days of WW2 NAA was at
Arlngton, VA.

>A couple of years later I was stationed in Prince Edward Island where the local
>station, CJRW 1240, was about the same strength as a station in New Brunswick, CKCW
>1220. In the background there always seemed to be a discernabile signal from NAA. I
>always assumed that this was due to the 20 kHz difference mixing with the 24 kHz of
>NAA and giving a very steady, but rather high pitched for CW, 4 kHz beat.

That's how I'd explain it, especially if there was non-linear substance deriving
a beat between the two BC stations.

>While in Greenwood it was also common to hear the Grennwood NDB (ZX) while in the
>car; since the beacon was on the IF commonly used in automobile radios in those days
>- 248 kHz? or something close.
>
>The last one was really wierd. Some days when the weather was lousy we would hear an
>intermittent and badly distorted BBC signal on a VHF FM frequency. The technicians
>were convinced we were either crazy or drunk. Eventually it turned out to be a
>mixing problem involving two VHF frequencies and a BBC World Service station on the
>15 MHz SWBC band. It only happened in bad weather because one of the mixing
>frequencies was the GCA (Ground Controlled Approach) frequency which was only really
>active in bad weather.
>
>I don't reallyl think any of the above had anything to do with radials, but they
>triggered some long ago memories.
>
>Dave

Very interesting, Dave, I'm pleased that that you shared those events with us.

Walt

2742. HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 04:00:44 UTC
From: TRABEM <>
Message-ID: <7l2ml1p4e9mjunf4ho30hd6uoj4e25756q@4ax.com>
Source record: 68339

What caps should I use for a resonant loop antenna for VLF? I have some antenna plans and need .2 uf total capacitance to resonate a loop antenna at 60 Khz.

I know I should avoid electrolytic and tantalum due to their poor temperature stability.

Disc ceramics are so poor thermally that they are out of the question, especially since the caps are going to be outdoors.

Silver Mica's are horribly expensive these days, and aren't available much past .01uf anyway.

I have a Mouser catalog and plan to order from them soon, but it's not clear which type of cap I should order.

Any suggestions for 50,000 pF caps that don't cost a fortune?

Note that this is a receive only antenna so voltage rating and current carrying capacity are not an issue.

Thanks.

T

2743. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 05:47:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djf85a$2fp$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68340

<TRABEM> wrote in message
news:7l2ml1p4e9mjunf4ho30hd6uoj4e25756q@4ax.com...
> What caps should I use for a resonant loop antenna for VLF? I have
> some antenna plans and need .2 uf total capacitance to resonate a
loop
> antenna at 60 Khz.
>
> I know I should avoid electrolytic and tantalum due to their poor
> temperature stability.
>
> Disc ceramics are so poor thermally that they are out of the
question,
> especially since the caps are going to be outdoors.
>
> Silver Mica's are horribly expensive these days, and aren't
available
> much past .01uf anyway.
>
> I have a Mouser catalog and plan to order from them soon, but it's
not
> clear which type of cap I should order.
>
> Any suggestions for 50,000 pF caps that don't cost a fortune?
>
> Note that this is a receive only antenna so voltage rating and
current
> carrying capacity are not an issue.
>
> Thanks.
>
> T
==========
Avoid electrolytics and ceramics like the plague!

Since whatever you do, 90 percent of losses will be in the coil
resistance you have a good choice of capacitor types. Any type of
plastic film insulation will do fine. You may wish to have a 2000pF
air-spaced variable in parallel to cover a small frequency range.

0.2 uF = 10 times 0.02 uF. In any case you will need a number of
small value components in parallel for exact tuning of a high-Q
circuit.

The normal 5 or 10 percent tolerance means that you will have to
measure and select values from a larger batch of inexpensive

capacitors.

Don't forget you will have to select from a small number of standard values such as 0.22, 0.1, 0.047, 0.033, etc.

Specially manufactured close tolerance capacitors will cost the Earth.

Temperature coefficients don't matter very much but if you have a choice then select those with the lowest coefficient. But TC is seldom specified by manufacturers. You would need a very good capacitance bridge to measure the small TCs involved although it is easy to make TC measurements.

To reduce size of the capacitor just increase the number of coil turns. You will notice little or no difference in operation.

The most efficient loop has a single turn of very thick wire.
The ONLY reason for multiple coil turns at VLF is to avoid impractical values of capacitance. Receiving sensitivity does not depend on the number of turns, only on the area enclosed by the loop.

A change in the number of coil turns involves only a change in how the loop is Z-matched to the receiver. With a single-turn coupling loop no changes are needed.

You may find program RJELOOP3 useful. It covers multi-turn square loops and other regular shapes of the same enclosed area.

Download program from website below in a few seconds and run immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2744. OT: Selection guide

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 08:07:45 UTC
From: David <groups@orbitcoms.com>
Message-ID: <lxH6f.25522$U51.15008@news-server.bigpond.net.au>
Source record: 68341

This is a bit off topic but I was wondering if anyone knows where
I could find a selection guide for through-hole, small signal RF
Transistors.

I have been using SMD but want to purchase some VHF and UHF transistors
for prototyping. The suppliers have a list of parts available by part
number but no description and is is taken forever to search each part
number to see if it is suitable.

Thanks in advance

Regards
David

2745. The Evolution of Boy Scout Headquarters Station K2BSA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 15:11:58 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <bf8nl1hggrtl3iqviff3jli9asj90h93f4@4ax.com>
Source record: 68342

The Evolution of Boy Scout Headquarters Station K2BSA

It's very likely that you've either heard, or heard of K2BSA, the club station at the National Headquarters of the Boy Scouts of America, located in Dallas, Texas. Then it's also likely that you'd be interested in learning a little background on how the station originated.

It is well known that in 1910, Britisher Lord Baden-Powell founded the Boy Scout movement in England. The movement soon caught on in the US, with its original Headquarters located at 2 Park Avenue, New York City until the early 1960's. After WW2, three top executives at Boy Scout Headquarters were radio amateurs who desperately wanted to have a Boy Scout Headquarters'club station, but there was no room in the crowded office complex for such a frill. These amateurs were Lloyd Everhart, K2CVT, publisher of all Boy Scout publications, the late Harry Harchar, W2GND, editor of Boys' Life, and E.E. 'Hoisy' Hoisington, K2GDR (now W4YTA), Chairman of the Safety and Health Department.

Around 1960 these amateurs came upon some exciting news. Due to the increasingly cramped office space, a move from New York was essential. To make the move possible Headquarters had just acquired some pristine wooded acreage in North Brunswick, NJ, at the intersection of US 1 and US 130, just south of New Brunswick, the location of station WII with its 200 kw Alexanderson alternator transmitter operating on 21.8 kHz. This was the station used to transmit President Wilson's ultimatum to Germany that resulted in the ending of WW1.

Our three amateurs descended onto the property with glee, because in addition to a long nature trail and large office complex building housing the Headquarters' business operations, a large, magnificent museum was built to display Boy Scouting memorabilia from all over the World. Their immediate thought was, "What neat place to operate and display ham radio!" The main display room was about the size of a standard basketball court. At one end of the room an attractive console was constructed in clear maple for the long desired amateur station.

Various manufacturers of amateur gear generously donated equipment to the station. Hallicrafters were the first, donating an HT?-111 transceiver, and an HT-37 RF power amplifier. The late Al Khan, K4FW, (then with Electro-Voice and owner of Ten-Tec) donated an EV-664 microphone, and Telrex donated a tower and its then top-of-the-line three-band beam and rotator. Later on, Hammarlund donated their latest transceiver, and then still later, Heathkit donated an SB-101 transceiver and an SB-200 RF power amplifier.

It was my good fortune to live in Dayton (800 miles east of the Hara Hamvention Dayton), only eight miles south of the new Headquarters on US 130. By sheer coincidence Hoisy, K2GDR, moved in just down the street from me, and naturally, both being hams, we became good friends. What was even more fortunate for me was that he invited me to join with him, Lloyd, and Harry to assemble the station. Guess what? Among other tasks, they gave me the responsibility for the antennas! What joy that task was. We four then formed the 'Boys' Life Radio

Club' and the original call assigned to the new station was K2BFW, which will be featured in an interesting story later on.
The station operation was very successful. Not only did we four of the Club enjoy operating the station, but all scouts and scouters visiting the museum, who were also licensed amateurs, and other visitors who were licensed, were given the opportunity to operate the station in the same manner as those who visit W1AW at the ARRL Headquarters.
But as luck(?) would have it, the K2BFW operations seemed to go awry during the week-ends of JOTA, the yearly October World-Wide Jamboree on the Air. This was the time when we expected to have an exciting bit of operation with the new station, when Boy and Girl Scouts visit nearby amateur stations to talk with other Boy and Girl Scouts over amateur radio. And every year, we at Headquarters had licensed scouts and scouters lined up for twenty-four hour operation of K2BFW throughout the entire JOTA weekends.
But alas, a distressing problem arose during JOTA--every year. A scoutmaster, a licensed amateur in Pennsylvania right across the Delaware River from us, obtained a special event call sign for the JOTA--K3BSA! Wow, the pile ups he drew! Everybody thought he was the Headquarters station. 'Ol K2BFW was left in his dust, and when we announced during every contact that we were the Headquarters station, many of our contacts disbelieved us, and told us to get off Headquarters' frequency. However, we still made many successful contacts, including lots of DX. We were always able to work HB9S, World Scouting Headquarters, in Geneva, Switzerland, where some of our own Scouting executives had the opportunity to talk with their counterparts in Geneva.
After several years of the distressing problem emanating from K3BSA I decided we needed more recognition and visibility than we could possibly get with the call sign K2BFW. So I decided to get us a new call sign that would give us the clout we needed. On checking the Call Book it was obvious that both W2BSA and K2BSA were in use. Well, it was also obvious that W2BS wasn't in use-but better than nothing,
As a former monitoring officer with the Radio Intelligence Division of the FCC I was personally acquainted with Rosel H. Hyde, then Chairman of the FCC. I told him of the situation and asked his advice on how to proceed in obtaining a permanent assignment of the call sign W2BS to the Boy Scout Headquarters station. He suggested that I present the situation in the form of a draft petition that he would take to the Chief of the Safety and Special Services Bureau for his comments. (At that time, the Amateur Division fell under this Bureau's jurisdiction.) Chairman Hyde was in complete agreement with our request. However, the Bureau Chief rejected the petition, saying there were no administrative rules allowing a special call sign to be assigne permanently in cases such as ours. In addition, he stated that old timers who already had two-letter calls would object to a Boy Scout station having a two-letter call. This last comment in his response seemed to me to be a lame excuse.
After learning of this response Chairman Hyde suggested that I revise the petition to include some means for overcoming the Bureau Chief's objections. He also advised me to submit the revised petition directly to the seven FCC Commissioners.
I then started some research. I pored over old Call Books between 1921 and 1928, and to my surprise I found more than 50 two-letter calls assigned to Boy Scout troops all over the Country. (I also discovered the early FRC policy of

assigning two-letter call signs to universities and colleges, all with suffixes beginning with 'y'.)
The revised petition included a report on my findings concerning the two-letter calls assigned to Boy Scout troops in those early days. By this time Chairman Hyde's tenure had expired, and was replaced by Chairman Dean Burch. However, Chairman Hyde remained as my advisor, and heartily approved of the revised petition.
As Chairman Hyde had advised earlier, this time I submitted the new petition directly to the FCC Commissioners on April 16, 1971, One of the arguments in the new petition for a permanent assignment of a call sign for the Headquarters' station I thought would help our position was that in addition of its use at Headquarters, the call could also be used by other scouting groups for their activities in all parts of the Country, simply by obtaining permission from the current trustee of K2BSA, and applying the appropriate /n for the District in which the operation occurs. This aspect of the permanent call sign would then relieve the FCC staff from the paper work required to process special-event call signs for other official Scouting activities, such as Jamborees. (I later took some lumps from the FCC staff on this issue, because some Jamboree leaders later ignored that aspect of the petition and requested special call signs WJ7WSC for World Scouting C?
However, after the usual long wait for bureaucratic action, on April 1, 1969, I received a letter directly from the Chairman of the FCC himself, Dean Burch, saying the Commission found that they believed the call sign K2BSA would give Boy Scout Headquarters the recognition and prestige required to let the amateur community know who we were every time we went on the air. Petition request granted!
It seems that during the time I was doing the research, the call sign K2BSA had become inactive, and was therefore available. K2BSA was thus assigned to our club station of the Boy Scouts of America Headquarters! As word got around concerning the new call sign, our local scouts and scouters started increasing our visibility by putting in more time on the air, and the positive responses we received proved that our recognition as Scouting National Headquarters was also increasing dramatically.
During the first years of operation with the call sign K2BFW, Harry Harchar was trustee of the station, but from the time of the new call sign until Headquarters moved to Dallas, I was the trustee, and also the National JOTA coordinator. As JOTA coordinator I was principally a PR man, publishing the pertinent operating information in the October issues of the various amateur publications, including QST, Ham Radio, CQ, and 73.
However, all did not bode well for the Headquarters' move from New York to New Jersey. It appears that Scouting organizations in the Western portion of the Country felt that the new location should have been more centrally located between East and West to provide a more equalized service to the West. The situation simmered until the 1990's, when the tough decision was made to move to Dallas. For the operation of K2BSA it was not only a tough call, but a fatal one--but fortunately, only temporarily.
Alas, a firm, unbendable high-level Headquarters decision was made that there would be no amateur operation and no antennas erected at the new building in Dallas. PRB-1? Then only in an amateur's dream. What then should become of the present equipment? It was decided to distribute it among the four of us,

Lloyd, Harry, Hoisy and myself. As an affcionado of early equipment it was my good fortune to inherit the original Hallicrafters 111 transceiver and the HT-37 power amplifier, which I still have in my collection.
Fortunately, quite some time after the move to Dallas, a Dallas Scouter who was also an ardent amateur, and then the SCM for the North Texas ARRL District, the late Walter 'Dan' Dansby, Jr.,W5URI, considered it untenable that K2BSA operation was killed simply by bureaucratic executive order. Dan then started a search for a suitable location to house K2BSA and get it back into operation. He initially found a place to house the station at Camp Shuman on Lake Worth near Azle, Texas, and later moved to its permanent home at Camp Wisdom in Dallas. The station's trustee is Ray Moyer, WD8JKV, and the station manager is Frank Krizan, KR1ZAN. K2BSA's equipment consists of two HF operating positions, a VHF/UHF satellite position, VHF/UHF voice and packet position and amateur TV (ATV) operating position. The station is operated during Jamboree on the Air (JOTA) and several other weekends of the year. Maintenance is done by Crew 73 members and Advisors of Richardson, TX.
Since September, 2000, K2BSA has been operating, and open certain Saturdays of each month for visiting Scout groups to tour and talk with other Hams and, perhaps, other Scouts around town, around the country and, often, the world. Watch the K2BSA web site for details or call the Circle Ten Council reservations desk 214-902-6764 (beginning in July 2000) to schedule a visit. Finally, it is comforting to know that through the operation of K2BSA, Amateur Radio is being kept alive within the Boy Scout movement, giving its youth an introduction to our hobby and service, and hopefully instilling a desire for them to become a part of our great Amateur Radio Community.

Walt, W2DU

2746. Re: Antenna problem

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 17:24:39 UTC
From: PN2222A <bipolar@lithium.net>
Message-ID: <rHP6f.6545$tV6.4981@newssvr27.news.prodigy.net>
Source record: 68343

"Rus" <n8nne@comcast.net> wrote in message
news:1129817434.675858.218540@z14g2000cwz.googlegroups.com...
> Remember that the relationship between wavelength and Frequency is
> defined by the equation ---
>
> c = Lambda X Nu
>
In fact, this formula is only valid at night.

Since it is written;

"There is no nu thing under the sun".

-- Ecclesiastes 1:9

PN2222A

2747. antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 20:25:51 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <LjS6f.2672$NJ.431@bignews7.bellsouth.net>
Source record: 68344

Got some dirty, corroded stranded #14 copper antenna wire I need to solder/splice. Limb fell across my antenna during Rita. I need to clean off the ends before soldering. What common household product(s) can I put the ends in overnite to get 'em shiny and ready to solder?

2748. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 20:54:20 UTC
From: Dave <noone@nowhere.com>
Message-ID: <tJSdnZDoisTgZcbeRVn-iQ@crocker.com>
Source record: 68345

vinegar and salt should make quick work of it... neutralize with baking soda
or just rinse really well. don't leave them overnight or you won't have any
wire left, just rub it in and wipe off the crud.

"RB" <rbig@bellsouth.nospam.net> wrote in message
news:LjS6f.2672$NJ.431@bignews7.bellsouth.net...
> Got some dirty, corroded stranded #14 copper antenna wire I need to
> solder/splice. Limb fell across my antenna during Rita. I need to clean
> off the ends before soldering. What common household product(s) can I put
> the ends in overnite to get 'em shiny and ready to solder?
>

2749. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 21:00:47 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <l1unl11vt8dh32ei635vvchasn5sfm4hks@4ax.com>
Source record: 68346

On Sun, 23 Oct 2005 15:25:51 -0500, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Got some dirty, corroded stranded #14 copper antenna wire I need to
>solder/splice. Limb fell across my antenna during Rita. I need to clean
>off the ends before soldering. What common household product(s) can I put
>the ends in overnite to get 'em shiny and ready to solder?
>

You didn't say how many strands.

If it is 7 strand, you may be able to unlay the strands and scrape the
oxide off with a knife, or polish it off with some stainless steel
wool or the like (dont soak it in steel wool overnight!).

"Common household products" excludes weak muriatic acid solution, and
acid flux, doesn't it, so I won't discuss them. If you do find a
common household acid that works, remember the risk of residual
contamination of the strands, and also, wicking up into the insulated
part if it is insulated.

One of the advantages of single strand bare antenna conductors is that
they are easier to clean, and you can even use acid cleaners without
risk of residual contamination of the strands and wicking up into the
insulated part.

Outright replacement might be the best option.

Owen
--

2750. Re: The Evolution of Boy Scout Headquarters Station K2BSA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 21:14:09 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <d4vnl11doig6ghagh2tbvsf1gih8t1k1fr@4ax.com>
Source record: 68347

On Sun, 23 Oct 2005 11:11:58 -0400, Walter Maxwell <walt@w2du.com> wrote:

>The Evolution of Boy Scout Headquarters Station K2BSA
Sorry All, I screwed up the dates of submission to the FCC and the receipt of the K2BSA assignment. My basic data is in Florida, which I'll dig out and correct after we return there on Nov 1.

Walt, W2DU

2751. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 21:35:40 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F8948868EBDspectrumhogstarbandn@207.106.92.175>
Source record: 68348

> vinegar and salt should make quick work of it... neutralize with
> baking soda or just rinse really well.

Damn! I've been hamming for over 40 years, yet I've never tried
that. I have a need to clean up and re-use some 7 strand copperweld
antenna line so I ran out and just tried this on a fairly corroded end.

It worked super well, and cleaned up each strand, actually getting
down around each strand pretty well even though I didn't spread them.

Thanks for reminding me of this old tip.

Ed K7AAT

2752. Re: WWVB Ferrite Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 22:42:27 UTC
From: Mike Young <boat042-spam@yahoo.com>
Message-ID: <nlU6f.5688$q%.3272@newssvr12.news.prodigy.com>
Source record: 68349
Cross-posted to: sci.electronics.design,rec.radio.amateur.antenna

Maybe try posting in rec.radio.amateur.antenna. It's been a few years since
I peeked in there, but there was a whole lot of knowledge and expertise
underlying the flammage.

"Bob Agnew" <ragnew@cox.net> wrote in message
news:NTy6f.90657$lq6.40604@fed1read01...
> OK -- I dug up the Amidon application notes. The reasoning that I used to
> justify a large bundle is as follows:
>
> Loop induced voltage = 2*Pi*N*A*Mu_sub_epsilon*F / Lambda
>
> where :
>
> Mu_sub_epsilon = effective permeability of the rod
> F = Field strength in microvolts per meter
> N = number of turns
> A = cross sectional area of loop in square meters
> Lambda = wavelength in meters
>
> The idea is to maximize A. The usual assumption is that the dominant
> noise is the noise in the receiver bandwidth and not atmospheric noise.
> When atmospheric noise dominates, the strategy fails as someone has
> pointed out.
>
>
>
> "John Popelish" <jpopelish@rica.net> wrote in message
> news:xMmdnVKTiKqFVsTeRVn-tQ@adelphia.com...
>> Bob Agnew wrote:
>>> I just dug up an old design of mine where I was planning to use 7 Amidon
>>> R33-050-750 0.5 inch by 7.5 inch rods in a bundle. i.e. one rod in the
>>> center and six wrapped around it yeilding a "bumpy" 1.5 inch diameter
>>> bundle.
>>>
>>> Somehow in my madness, I had calculated that this design would increase
>>> the effective antenna cross sectional area and improve the S/N.
>>>
>>> I had calculated that I needed about 1000 turns to get 70 mhy. I found
>>> another of my old calculations that predicted 883 turns, AWG 38 spaced
>>> one wire diameter apart at 126. turns per inch. I had planned to wrap
>>> two strands at once, then coat with Q dope. When it was dry enough, I
>>> would remove one of the winding, then wrap the layer and start the next
>>> one.

>>>
>>> Any comments, even those questioning my sanity, will be greatly
>>> appreciated.
>>>
>>> Now that I am semi-retired, I thought I'd give this another try, but I
>>> wanted to run it by the experts here.
>>
>> I haven't done a finite element analysis on such things, but I think you
>> can approximate the same effect as a fat bundle by adding a big ferrite
>> bead on each end of one rod, (pick one that just slips over the end)
>> including the same inductance per turn. Inserting the rod about a
>> diameter into the bead should be enough.
>>
>> This gives you a lower resistance and lower stray capacitance coil than
>> wrapping around a big bundle. I would also use a very thin coil form,
>> like one made of a few layers of epoxy and paper wrapped over a few
>> layers of Saran Wrap over the rod. The PVC pipe adds turn length without
>> doing anything useful for it. The ferrite rods are pretty good
>> insulators, all by themselves. If you can measure resistance between two
>> points on one with an ohm meter, it is not RF ferrite.
>
>

2753. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-23 22:51:23 UTC
From: Dave <noone@nowhere.com>
Message-ID: <H9WdnYDVwblxjsHeRVn-hQ@crocker.com>
Source record: 68350

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96F8948868EBDspectrumhogstarbandn@207.106.92.175...
>
>> vinegar and salt should make quick work of it... neutralize with
>> baking soda or just rinse really well.
>
>
> Damn! I've been hamming for over 40 years, yet I've never tried
> that. I have a need to clean up and re-use some 7 strand copperweld
> antenna line so I ran out and just tried this on a fairly corroded end.
>
> It worked super well, and cleaned up each strand, actually getting
> down around each strand pretty well even though I didn't spread them.
>
>
>
> Thanks for reminding me of this old tip.
>
> Ed K7AAT

yeah, sometimes us young whippersnappers can teach you old fogies a thing or two! i've only been at this for 27 years. i learned that one to clean copper bottom pots. as someone else pointed out, be sure to neutralize it with baking soda or at least rinse off really well, especially on stranded and insulated wire. if the vinegar stays down between the strands it can cause more corrosion.

2754. Re: The Evolution of Boy Scout Headquarters Station K2BSA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 00:18:08 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11loa1qc9rv8vd3@corp.supernews.com>
Source record: 68351

In the late 50s, Al Kahn (W8DUS president of ElectoVoice) and I ran the amateur radio station at the Jamboree at Valley Forge. I no longer remember the call sign used. Al went on to found TenTec and passed away within the year. I went on to Ohio State, mentoring by W8JK, and teaching.

Al was a great person. He let me drive his Thunderbird (then a sports car) into town to get some parts. Exciting! He also taught me some valuable lessons.

Wish that I could remember the call sign that we used.

Thanks Walt for putting down the story that I have heard you tell before. I am an Eagle scout and it is especially disappointing not to have more of an amateur radio presence in Scouting.

73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Walter Maxwell" <walt@w2du.com> wrote in message
news:d4vnl11doig6ghagh2tbvsf1gih8t1k1fr@4ax.com...
> On Sun, 23 Oct 2005 11:11:58 -0400, Walter Maxwell <walt@w2du.com> wrote:
>
> >The Evolution of Boy Scout Headquarters Station K2BSA
> Sorry All, I screwed up the dates of submission to the FCC and the receipt
of
> the K2BSA assignment. My basic data is in Florida, which I'll dig out
and
> correct after we return there on Nov 1.
>
> Walt, W2DU

2755. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 00:51:24 UTC
From: DaveM <masondg4499@comcast99.net>
Message-ID: <7cudnWafBpaQrcHeRVn-sA@comcast.com>
Source record: 68352

<TRABEM> wrote in message news:7l2ml1p4e9mjunf4ho30hd6uoj4e25756q@4ax.com...
> What caps should I use for a resonant loop antenna for VLF? I have
> some antenna plans and need .2 uf total capacitance to resonate a loop
> antenna at 60 Khz.
>
> I know I should avoid electrolytic and tantalum due to their poor
> temperature stability.
>
> Disc ceramics are so poor thermally that they are out of the question,
> especially since the caps are going to be outdoors.
>
> Silver Mica's are horribly expensive these days, and aren't available
> much past .01uf anyway.
>
> I have a Mouser catalog and plan to order from them soon, but it's not
> clear which type of cap I should order.
>
> Any suggestions for 50,000 pF caps that don't cost a fortune?
>
> Note that this is a receive only antenna so voltage rating and current
> carrying capacity are not an issue.
>
> Thanks.
>
> T

Polystyrene caps are very temperature stable, typically changing only 0.5%
over their full temp range. And they're available in high capacitance
values. Check Mouser and Digikey for good prices.
--
Dave M
MasonDG44 at comcast dot net (Just substitute the appropriate characters in
the address)

Never take a laxative and a sleeping pill at the same time!!

2756. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 01:08:29 UTC
From: TRABEM <>
Message-ID: <sjbol1h37gap4qvigr93ik03vjg0b0ue9p@4ax.com>
Source record: 68353

Hi Reg,

Didn't know you monitored here!

>
>The normal 5 or 10 percent tolerance means that you will have to
>measure and select values from a larger batch of inexpensive
>capacitors.
>
>Don't forget you will have to select from a small number of standard
>values such as 0.22, 0.1, 0.047, 0.033, etc.
>

I've ordered a good supply of polystyrene caps in the standard values.
I also have an RCL meter, which is cheap and not accurate, but I can
measure the actual value of the caps I get from Mouser and assemble
them to hit the target frequency pretty easily. So, I'm actually
hoping the values they send are somewhat dispersed from the marked
values.

>Specially manufactured close tolerance capacitors will cost the Earth.
>
>Temperature coefficients don't matter very much but if you have a
>choice then select those with the lowest coefficient. But TC is seldom
>specified by manufacturers. You would need a very good capacitance
>bridge to measure the small TCs involved although it is easy to make
>TC measurements.

I learned about TC in the WB4VVF Accukeyer days when I was much
younger and foolish. I built one, it worked great. But, I used a disc
ceramic cap for the clock speed generator. I could actually detect the
keyer changing speed as I sent cw, which I assumed was due to the TC
of the disc ceramic. Touching a soldering iron to the outside of the
cap drove the keyer speed wild. Anyway, I learned my lesson about
disk ceramic caps the hard way and didn't want to repeat the error 25
years later by using a cap that didn't have a good temco.

>
>To reduce size of the capacitor just increase the number of coil
>turns. You will notice little or no difference in operation.
>
>The most efficient loop has a single turn of very thick wire.

Which is exactly what I intend to do! I had a choice between large
copper welding cable and 3 inch copper pipe. I chose the welding cable
because it was actually cheaper although I'm not sure which would have

the best Q.

>The ONLY reason for multiple coil turns at VLF is to avoid impractical
>values of capacitance. Receiving sensitivity does not depend on the
>number of turns, only on the area enclosed by the loop.
>
>A change in the number of coil turns involves only a change in how the
>loop is Z-matched to the receiver. With a single-turn coupling loop
>no changes are needed.
>

Actually, I have a receiver with a 2 ohm input impedance Reg. So, it can be fed directly from the series tuned loop. My only selectivity in the front end of the receiver will be the loop tuning, so Q is important.

The receiver is small and draws low power, so I am going to locate the receiver at the antenna and feed the audio to teh house with common mode audio transformers...thus avoiding the chance to conduct household noise from the house to the receiver through the connecting cable.

>You may find program RJELOOP3 useful. It covers multi-turn square
>loops and other regular shapes of the same enclosed area.
>
>Download program from website below in a few seconds and run
>immediately.

Already got RJELOOP3 and love it Reg. It has helped immensely and saved me so much time because it allows me to evaluate how good antennas will work without having to assemble them! Thanks for making the software available.

GL.

T

>.....
>

2757. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 02:01:32 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <5nfol1php2f6j34g3t9g9925n463jcecqh@4ax.com>
Source record: 68354

On Sun, 23 Oct 2005 15:25:51 -0500, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Got some dirty, corroded stranded #14 copper antenna wire I need to
>solder/splice. Limb fell across my antenna during Rita. I need to clean
>off the ends before soldering. What common household product(s) can I put
>the ends in overnite to get 'em shiny and ready to solder?
>

I use a product called CLR. It is used to remove calcium, lime and
rust from bathroom fixtures. The stuff I use (in the bathroom and on
the wires) comes in a green plastic squeeze bottle. It reduces
(chemistry context) the oxide and leaves the copper bright and shiney
and ready for the solder. I use flux, silver solder and a torch when
I solder SMT components (just kidding!) antenna wires. The flux gives
a better joint and the silver solder seems to be stronger although
your mechanical strength should come from the Western Union twist you
put in the wire. I squirt the stuff into a ceramic bowl and use a
cheap brass bristle brush to clean. Rinse well with water.

R

2758. Re: The Evolution of Boy Scout Headquarters Station K2BSA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 04:41:07 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11lopf4llnch209@corp.supernews.com>
Source record: 68355

I have to say that you are an interesting guy, Walter. You have a lot of experience and I always enjoy hearing about it.

Thanks,

Rod KI7CQ

2759. Dipole antenna for CC2500

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 06:55:31 UTC
From: Kelvin <hemanng@hotmail.com>
Message-ID: <dji0ii$57b$1@nnews.pacific.net.hk>
Source record: 68356

I want to know more about pcb dipole antenna design's calculation method for CC2500 ,can anyone give me a guide or solutions?

Thanks

2760. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 07:03:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vauol15vg5srnose1n4g0vpaeivnfuinoc@4ax.com>
Source record: 68357

On Sun, 23 Oct 2005 21:08:29 -0400, TRABEM <> wrote:

>Hi Reg,
>
>Didn't know you monitored here!

Try googling the archives to see he does more than monitor.

>>The normal 5 or 10 percent tolerance means that you will have to
>>measure and select values from a larger batch of inexpensive
>>capacitors.
>>
>>Don't forget you will have to select from a small number of standard
>>values such as 0.22, 0.1, 0.047, 0.033, etc.
>>
>
>I've ordered a good supply of polystyrene caps in the standard values.
>I also have an RCL meter, which is cheap and not accurate, but I can
>measure the actual value of the caps I get from Mouser and assemble
>them to hit the target frequency pretty easily.

Most capacitors are rated at the same frequency that most RCL meters
(for good reason) run at: 1KHz. This is not to say capacitance is the
same at 60KHz. It would be simpler to build your antenna with a
tickler coil in an oscillator circuit and measure the resonance
frequency.

>So, I'm actually hoping the values they send are somewhat
>dispersed from the marked values.

They usually are, but are also within the stated error band. That is
to say if they are spec'd at ï¿½5% you might them spread from +1% to
+5% of nominal rather than across the full range of -5% to +5%. The
upside is tighter matching, the downside is no offsetting average
centered around nominal.

>>To reduce size of the capacitor just increase the number of coil
>>turns. You will notice little or no difference in operation.
>>
>>The most efficient loop has a single turn of very thick wire.
>
>Which is exactly what I intend to do! I had a choice between large
>copper welding cable and 3 inch copper pipe. I chose the welding cable
>because it was actually cheaper although I'm not sure which would have
>the best Q.

And this is where most of the advice so far (and the perception of the problem) comes into a clash with reality. I will quote from your earlier post to make the point:

>>>Note that this is a receive only antenna so voltage rating and current
>>>carrying capacity are not an issue.

Current carrying capacity is an issue, that is why it is called Q!

Simply having smaller currents does not boost the Q of these pitifully meager leads on the capacitors going to the comparatively garganthuan copper pipe. Even more, and especially at this frequency, contact resistance of the plates of the capacitor to the leads is an issue that has been studied and resolved for designers of switching power supplies (which typically run in this frequency neighborhood).

What you need to research for are caps with low ESR (Equivalent Series Resistance), or test your selections along the lines offered at: http://octopus.freeyellow.com/99.html

This returns us to the discussion of Q (we never really left), but for capacitors is measured as DF (dissipation factor, something that is generally ignored for transmission lines because the loaded Q is so very low - as Dorothy would offer "Toto, we're not in Kansas anymore!"). You could be killed by ESR and not know what hit you.

The suggestion for Polystyrene may be good, but only for a particular manufacturer or for a particular run. It requires individual examination and specification, especially when you've been warned away from ceramics which can exhibit ï¿½15ppm/ï¿½C (how good do you want it?). The real trick is to simply accept you are going to get some that drift and plan to offset that drift with another parallel formula that drifts in the opposite direction such as: polyester and polypropylene, or polystyrene and polycarbonate.

73's
Richard Clark, KB7QHC

2761. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 07:05:46 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835435C95DA15@zetnet.co.uk>
Source record: 68379

Got some dirty, corroded stranded #14 copper antenna wire I need to solder/splice.
Ever tried using Coke/Pepsi. Dont laugh, try putting an old dime or cent in it for a day or so and see the results. Geeezzzzzzzzz the things we drink today!! Or try cutting it back a tad or two to new wire, you shouldn't notice too much diffrence.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Dont.

2762. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 12:11:08 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_435cbefa@fidonet.org>
Source record: 68358

"TRABEM" bravely wrote to "All" (23 Oct 05 21:08:29)
--- on the heady topic of "Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?"

TR> From: TRABEM <>
TR> Xref: core-easynews rec.radio.amateur.antenna:219247

TR> I learned about TC in the WB4VVF Accukeyer days when I was much
TR> younger and foolish. I built one, it worked great. But, I used a disc
TR> ceramic cap for the clock speed generator. I could actually detect the
TR> keyer changing speed as I sent cw, which I assumed was due to the TC
TR> of the disc ceramic. Touching a soldering iron to the outside of the
TR> cap drove the keyer speed wild. Anyway, I learned my lesson about
TR> disk ceramic caps the hard way and didn't want to repeat the error 25
TR> years later by using a cap that didn't have a good temco.

Hey those tiny square blue bypass caps are great for measuring
temperature. I had one on the workbench in a bridge and the IR heat
from my bare hand was changing the reading from at least a foot away!
Ceramic bypass types vary their capacitance a lot with temperature and
voltage.

A*s*i*m*o*v

... Hanging: Early form of bungee jumping practiced in the old west.

2763. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 14:04:01 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <djipkh$1f2u$1@f04n12.cac.psu.edu>
Source record: 68359

Also catsup works too. It has lots of vinegar and salt, works a little
better if you add more salt to it.

--
John Passaneau W3JXP
State College Pa
jxp16@psu.edu
This mail is a natural product. The slight variations in spelling and
grammar enhance its individual character and beauty and in no way are to
be considered flaws or defects.

"Dave" <noone@nowhere.com> wrote in message
news:H9WdnYDVwblxjsHeRVn-hQ@crocker.com...
>
> "Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
> news:Xns96F8948868EBDspectrumhogstarbandn@207.106.92.175...
> >
> >> vinegar and salt should make quick work of it... neutralize with
> >> baking soda or just rinse really well.
> >
> >
> > Damn! I've been hamming for over 40 years, yet I've never tried
> > that. I have a need to clean up and re-use some 7 strand copperweld
> > antenna line so I ran out and just tried this on a fairly corroded end.
> >
> > It worked super well, and cleaned up each strand, actually getting
> > down around each strand pretty well even though I didn't spread them.
> >
> >
> >
> > Thanks for reminding me of this old tip.
> >
> > Ed K7AAT
>
> yeah, sometimes us young whippersnappers can teach you old fogies a thing
or
> two! i've only been at this for 27 years. i learned that one to clean
> copper bottom pots. as someone else pointed out, be sure to neutralize it
> with baking soda or at least rinse off really well, especially on stranded
> and insulated wire. if the vinegar stays down between the strands it can
> cause more corrosion.
>
>
>

2764. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 16:50:17 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130172617.761487.141900@g14g2000cwa.googlegroups.com>
Source record: 68360

Caps to consider: as you've already figured, polypropylenes can do very well. Mylars/polyesters are not very stable, and don't have as high a Q as polyprops. They also show greater distortion, which may or may not be an issue to you. C0G ceramics should work fine. Be aware that the loop inductance will change with temperature, too, as the loop size changes. Presumably your loaded Q won't be so high that it's a problem: 50ppm/C over 20C is 0.1%, which wouldn't be noticable, most likely, with a loaded Q of up to 500 or so. At 60kHz, Q=600 is only about a 100Hz bandwidth, so I suppose you won't want a higher Q than that anyway (assuming you could get it). I'm curious: what loaded Q do YOU expect to get? How big is your loop going to be? What impedance do you expect with the loop resonated?

Cheers,
Tom

2765. Re: The Evolution of Boy Scout Headquarters Station K2BSA

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 17:08:57 UTC
From: Walter Maxwell <walt@w2du.com>
Message-ID: <i25ql1pd3ll42kdkvrllronieqopvofqnu@4ax.com>
Source record: 68361

On Sun, 23 Oct 2005 21:41:07 -0700, "Rod Maupin" <gridman@ywave.com> wrote:

>I have to say that you are an interesting guy, Walter. You have a lot of
>experience and I always enjoy hearing about it.
>
>Thanks,
>
>Rod KI7CQ
>

Glad you enjoy them, Rod. I've had a fun-filled life, and feel very fortunate and privileged to have been at the right place at the right time for the opportunities to experience events that one could only dream about. I'll send you a coupla more via email.

Walt

2766. ICOM Band Decoder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 17:23:17 UTC
From: Dave <kb8nnu@charter.net>
Message-ID: <1130174597.371939.252270@g43g2000cwa.googlegroups.com>
Source record: 68362

Howdy...I am interested in building a cheap and easy band decoder for an icom 706mkIIg that will ultimately be used for switching relays on a remote antenna switch. I have searched around and found a few people that make them and offer kits, but would like to see if anyone has built one with good results. Any help or ideas would greatly be appreciated...

Thanks,

Dave

2767. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 18:12:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djj86gee1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68363

"Richard Clark" wrote -
>
> Try googling the archives to see he does more than monitor.

Richard,

I'm a little surprised you have time to spy on my activities. I trust you are not a spare-time member of the CIA which appears to take an interest in most things which go on on this planet. By the way, your use of the English Language has recently improved. I have been able to understand better what you are talking about.

But your concern about Effective Series Resistance (ESR) of the tuning capacitors in connection with VLF tuned loops is a bit overdone. Remembering Lord Kelvin, let's crudely quantify things.

All we have to go on is Trabem's value of the tuning capacitor of 0.2 uF.

Therefore the size of his loop is a square of sides = 5 metres. Total length of wire = 20 metres. Or somehing similar.

Assume the wire diameter is a conservative thick 2mm.

Therefore we have L = 31 microHenrys, Reactance at 60 KHz = 12 ohms, and RF resistance 0.23 ohms.

From which the intrinsic Q of the loop inductance = 50.

Assume the tuning capacitor is comprised of ten 0.02 uF capacitors in parallel. The resistance of 10 capacitor leads in parallel is negligible in comparison with the loop's single-turn conductor RF resistance of 0.23 ohms.

He, Trabem, will be obliged to use a bundle of capacitors to make an EXACT value for the tuning capacitor because of the impossibiltity of obtaining a single capacitor of exactly the correct value, at a particular temerature, and of sufficient long-term stability. He can't afford it!

Immediately, the ESR of a 0.02 uF capacitor, whatever it is, is divided by 10. Yes, I know that the ESR of a capacitor at 60 KHz involves a little more than lead resistance. But it's too small for an American General Radio bridge to accurately measure it.

But to return to Earth, the working Q of the 5-metre-per-side loop is a function of the sum of the conductor resistance, plus the small ESR, plus the radiation resistance (which is also negligible), PLUS the

loss resistance due interaction of the loop with its environment.

Unless the loop is removed from ground and other foreign structures by at least 1/3 of its diameter the losses due to its environment will greatly exeed all other losses.

If the environmental loss is equal only to conductor resistance loss, the working Q of the loop will be reduced to 25.

With a Q of 25 the bandwidth will be of the order of 60/25 = 2.4 KHz, or enough to accommodate an audio SSB transmission.

And getting down to practicalities, this means that the 0.2 uF tuning capacitor has to be adjusted to an accuracy of about 0.3 percent, or within a few hundred pF.

That is why I suggested a 2000 pF variable capacitor be included in the bunch. A 2000 pF variable capacitor consists of an old fashioned 4-gang, 500 pF, receiving-type capacitor with all sections connected in parallel.

As the loop is to be installed outdoors (with 5 metre sides it HAS to be) the variable 2000 pF component might be useful to re-tuning it between summer and winter temperature variations.

It's surprising what can be gleaned from a knowledge only of the value of the proposed tuning capacitor.

Its all guesswork of course.

Incidentally, if Trabem obtains batchea of nominally identical value capacitors, he will probably find they are all on the same side of the tolerance. They probably all came from the same production line and machine settings. Production values are not distributed at random. This can seriously handicap his choice of particalar values to make up the total of 0.2 uF.

Regards, Reg, G4FGQ.

2768. Re: ICOM Band Decoder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 19:55:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <V_a7f.6026$dO2.634@newssvr29.news.prodigy.net>
Source record: 68364

Dave wrote:
> Howdy...I am interested in building a cheap and easy band decoder for
> an icom 706mkIIg that will ultimately be used for switching relays on a
> remote antenna switch. I have searched around and found a few people
> that make them and offer kits, but would like to see if anyone has
> built one with good results. Any help or ideas would greatly be
> appreciated...

Too bad it's not an IC-745 which has an analog voltage output
proportional to the pre-WARC ham bands.

I designed such a device about ten years ago. It works on any
100 watt transmitter. It had a divide by 1024 pre-scalar to
bring the signals down to a comfortable speed for CMOS logic.
Then a window would open for ~4mS and a 2048 max counter would
record the counts. Those bits were stored and used as address
bits on an EPROM whose output indicated the band. I used it to
automatically switch in variable lengths of ladder-line depending
upon the band.

I wonder how many people would be interested in me digging
up that old design which is buried in a box in my garage?
--
73, Cecil http://www.qsl.net/w5dxp

2769. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 20:09:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9a9ql1hin6be70k4fm8usubliasmtm951o@4ax.com>
Source record: 68365

On Mon, 24 Oct 2005 18:12:32 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>"Richard Clark" wrote -
>> Try googling the archives to see he does more than monitor.
>
>Richard,
>I'm a little surprised you have time to spy on my activities.

Hi Reggie,

There is no room for surprise and even less interest in your
"activities" whatever that term means. As for the time to accomplish
such a simple act - that is eclipsed in simply responding with these
first two sentences.

>But your concern about Effective Series Resistance (ESR) of the tuning
>capacitors in connection with VLF tuned loops is a bit overdone.

Clearly you in over your head, Old Son. I would suggest you exercise
your own skills in spying out common literature on the subject.

>Remembering Lord Kelvin, let's crudely quantify things.

Sure, this exercise is going to floor you because you are clearly
quantifying only those things you are aware of. ESR is clearly beyond
your experience horizon given the howlers of dismissal you offer.

>All we have to go on is Trabem's value of the tuning capacitor of 0.2
>uF.
>
>Therefore the size of his loop is a square of sides = 5 metres. Total
>length of wire = 20 metres. Or somehing similar.

We have a loop so small, by your own reckoning, that its Radiation
Resistance amounts to barely 20 nanoOhms. This is not outside of the
realm of a simple reckoning - Lord Kelvinator would roll his eyes at
such omissions. The same efficiency issues that plague driving this
as a transmission antenna also plague it as a receiving antenna. I
see you neglect your own Kelvinator assessment of efficiency in your
cavalier dismissal.

>Assume the wire diameter is a conservative thick 2mm.

In the face of a stated choice of:
>>I had a choice between large copper welding cable and
>>3 inch copper pipe. I chose the welding cable

>Therefore we have L = 31 microHenrys, Reactance at 60 KHz = 12 ohms,
>and RF resistance 0.23 ohms.

Adding loss seems to serve the argument rather than the plan.

>From which the intrinsic Q of the loop inductance = 50.

Lord Kelvinator would throw his chalk at you for such reliance on what
is so easily measurable instead of being conjectured.

>Assume the tuning capacitor is comprised of ten 0.02 uF capacitors in
>parallel.

This is another failure that Lord Kelvinator would dope slap you with.
WHAT capacitors? What materials are being used, what vendor? what
specification? You are egregiously deficient in the particular of
MEASURABLES and you simply skip the SWAG. Is this the Kelvinator
ethic at work? This is lower 4th form effort. You are simply arguing
what you are familiar with and what follows reveals a vast
intellectual hole:
>the ESR of a 0.02 uF capacitor, whatever it is, is
>divided by 10. Yes, I know that the ESR of a capacitor at 60 KHz
>involves a little more than lead resistance. But it's too small for an
>American General Radio bridge to accurately measure it.

You clearly left the bench before the General Radio 1650-B became
commonly available to the calibration labs 40 years ago. There is
also the ESI Electro Scientific Inc. 250 DA Impedance Bridge. Both
bridges span 6 orders of magnitude for D measurement. We can presume
you have no experience with the Hewlett Packard HP 4270A either.

Going further (and certainly more modern) we have the ANDEEN-HAGERLING
AH 2700A which offers loss down to a dissipation factor of 1.5x10-8
tan d. This, by the way, does not extend above 20KHz but certainly
blows away any argument of anything being too small for its 12 ORDERS
of magnitude to encompass.

I could offer more examples, but that would be like shooting fish in a
barrel.

Reggie, you are simply gusting on with confirmed bafflegab:
>Its all guesswork of course.

>Incidentally, if Trabem obtains batchea of nominally identical value
>capacitors, he will probably find they are all on the same side of the
>tolerance.
Let's see, I said that already and you parrot it either
1. without attribution (plagiarizing);
2. responding without reading;
3. both.

73's
Richard Clark, KB7QHC

2770. Re: ICOM Band Decoder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 20:30:47 UTC
From: Larry Benko <xxw0qe@comcast.net>
Message-ID: <AdCdndEsN9vr2cDeRVn-ow@comcast.com>
Source record: 68366

Cecil Moore wrote:
> Dave wrote:
>
>> Howdy...I am interested in building a cheap and easy band decoder for
>> an icom 706mkIIg that will ultimately be used for switching relays on a
>> remote antenna switch. I have searched around and found a few people
>> that make them and offer kits, but would like to see if anyone has
>> built one with good results. Any help or ideas would greatly be
>> appreciated...
>
>
> Too bad it's not an IC-745 which has an analog voltage output
> proportional to the pre-WARC ham bands.
>

The 706 (on pin 5 of the 13 pin accessory socket) still has the Icom analog voltage output based on the selected band BUT unfortunately it is not a unique decoding. From some notes of mine it looks like:
160m = 7.0-8.0V
80-75m = 6.0-6.8V
40m = 5.0-5.8V
30m = 0V
20m = 4.0-4.8V
17m-15m = 3.0-3.8V
12m-10m = 2.0-2.8V
6m-2m = 1.0-1.9V
When I realized that 17m and 15m decode the same and 12m and 10m decode the same I dropped the project. However this may not concern you. The best way is to decode the CIV bus and read the frequency on the bus but this is more complicated.

73,
Larry, W0QE

2771. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 20:36:47 UTC
From: k6zsr <k6zsr@k6zsr.com>
Message-ID: <3Cb7f.3302$UF4.2370@fed1read02>
Source record: 68367

After 47 years of hamming, I found that this is the best way to clean corroded stranded #14 copper antenna wire (may also work on #12) especially if you experience another "Rita"

1.) Make yourself a strong MargaRITA drink using ONLY Hornitos Tequilla.
2.) After you finish drinking the MargaRITA, dip the end of your antenna wire into the residue at the bottom of the glass.
3.) Using the lemon slice, carefully wipe the end of your antenna wire clean.
4.) Repeat 1 through 3 four times.

And there you have it. Reconnect your antenna and go work some real dx for a change and enjoy your lowest noise level you have ever experienced.

Note: If you are trying to clean off some ladder line, just use a wider glass.

It worked for me over the years and I am sure it will work for you.

73's de Mike, K6ZSR

"RB" <rbig@bellsouth.nospam.net> wrote in message news:LjS6f.2672$NJ.431@bignews7.bellsouth.net...
> Got some dirty, corroded stranded #14 copper antenna wire I need to
> solder/splice. Limb fell across my antenna during Rita. I need to clean
> off the ends before soldering. What common household product(s) can I put
> the ends in overnite to get 'em shiny and ready to solder?
>

2772. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 21:45:53 UTC
From: DaveM <masondg4499@comcast99.net>
Message-ID: <Qo2dnZSQVdKMy8DeRVn-iw@comcast.com>
Source record: 68368

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:djj86gee1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Richard Clark" wrote -
>>
>> Try googling the archives to see he does more than monitor.
>
> Richard,

<Snippppppp>
> Assume the tuning capacitor is comprised of ten 0.02 uF capacitors in
> parallel. The resistance of 10 capacitor leads in parallel is
> negligible in comparison with the loop's single-turn conductor RF
> resistance of 0.23 ohms.
>
> He, Trabem, will be obliged to use a bundle of capacitors to make an
> EXACT value for the tuning capacitor because of the impossibiltity of
> obtaining a single capacitor of exactly the correct value, at a
> particular temerature, and of sufficient long-term stability. He
> can't afford it!
>
> Immediately, the ESR of a 0.02 uF capacitor, whatever it is, is
> divided by 10. Yes, I know that the ESR of a capacitor at 60 KHz
> involves a little more than lead resistance. But it's too small for an
> American General Radio bridge to accurately measure it.
>
> But to return to Earth, the working Q of the 5-metre-per-side loop is
> a function of the sum of the conductor resistance, plus the small ESR,
> plus the radiation resistance (which is also negligible), PLUS the
> loss resistance due interaction of the loop with its environment.
>
> Unless the loop is removed from ground and other foreign structures by
> at least 1/3 of its diameter the losses due to its environment will
> greatly exeed all other losses.
>
> If the environmental loss is equal only to conductor resistance loss,
> the working Q of the loop will be reduced to 25.
>
> With a Q of 25 the bandwidth will be of the order of 60/25 = 2.4 KHz,
> or enough to accommodate an audio SSB transmission.
>
> And getting down to practicalities, this means that the 0.2 uF tuning
> capacitor has to be adjusted to an accuracy of about 0.3 percent, or
> within a few hundred pF.

>
> That is why I suggested a 2000 pF variable capacitor be included in
> the bunch. A 2000 pF variable capacitor consists of an old fashioned
> 4-gang, 500 pF, receiving-type capacitor with all sections connected
> in parallel.
>
> As the loop is to be installed outdoors (with 5 metre sides it HAS to
> be) the variable 2000 pF component might be useful to re-tuning it
> between summer and winter temperature variations.
>
> It's surprising what can be gleaned from a knowledge only of the value
> of the proposed tuning capacitor.
>
> Its all guesswork of course.
>
> Incidentally, if Trabem obtains batchea of nominally identical value
> capacitors, he will probably find they are all on the same side of the
> tolerance. They probably all came from the same production line and
> machine settings. Production values are not distributed at random.
> This can seriously handicap his choice of particalar values to make up
> the total of 0.2 uF.
> ----
> Regards, Reg, G4FGQ.
>
>

The idea of having to use identical values of caps is a bit off track. You build the capacitor bank up with obtainable value units, but add smaller values (it's called trimming) to get to the exact capacitance you need. I saw a VLF loop antenna that used such an arrangement, and as the fine tuning element, there was a couple varicaps in parallel. There was also a thermistor that fed temperature data back to an opamp circuit that controlled the bias on the varicaps. The end result was an antenna that was very well compensated for temperature. The loop stayed tuned within a few hertz of it's tuned frequency over temperatures ranging from around 0F to over 100F. The antenna was part of a VLF frequency calibration system. Can't remember the make/model... it was a number of years ago. Tracor seems to ring a bell, but not sure.

Cheers!!!
--
Dave M
MasonDG44 at comcast dot net (Just substitute the appropriate characters in the address)

Never take a laxative and a sleeping pill at the same time!!

2773. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 22:03:49 UTC
From: TRABEM <>
Message-ID: <6llql1p0a9j8jklleembj2hdhnlpuenma8@4ax.com>
Source record: 68369

>
>Therefore the size of his loop is a square of sides = 5 metres. Total
>length of wire = 20 metres. Or somehing similar.
>
>Assume the wire diameter is a conservative thick 2mm.
>

Assume nothing Reg.

The loop is indeed 5M per side.

But, it is however made out or 2/0 copper cable used for arc welding.

I got a good deal on it. It has many many fine strands, never bothered
to count them or to measure the diameter of the individual strands.

But, suffice it to say that it is much larger than 2 mm.

I'm hoping for a Q of 600 at 60 Khz.

I looked at 3 inch copper pipe, couldn't estimate which had the better
ac resistance, so I went with the welding cable rather than the large
copper pipe.

>
>And getting down to practicalities, this means that the 0.2 uF tuning
>capacitor has to be adjusted to an accuracy of about 0.3 percent, or
>within a few hundred pF.
>
>That is why I suggested a 2000 pF variable capacitor be included in
>the bunch. A 2000 pF variable capacitor consists of an old fashioned
>4-gang, 500 pF, receiving-type capacitor with all sections connected
>in parallel.
>
>As the loop is to be installed outdoors (with 5 metre sides it HAS to
>be) the variable 2000 pF component might be useful to re-tuning it
>between summer and winter temperature variations.
>

I have some 365 pF air variables I planned to use one for fine tuning
the loop.

There will be no ssb reception. Generally I'm interested in 6 to 10 Hz
wide channels at 185.3 Khz and in the 137 KHz ham band.

Fortunately, I have a DDS with a tcxo, so I can spot the frequencies I
want to listen on and then tweek the loop with the variable cap.

Regards,

T

2774. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 22:09:55 UTC
From: TRABEM <>
Message-ID: <nkmql19pjinrl5hr0e0mrgvp1rtl99or4m@4ax.com>
Source record: 68370

Thanks Tom,

I hope for a Q of 600.

> At 60kHz, Q=600 is only
>about a 100Hz bandwidth, so I suppose you won't want a higher Q than
>that anyway (assuming you could get it). I'm curious: what loaded Q
>do YOU expect to get?

> How big is your loop going to be?

Around 5.2 Meters per side.

> What
>impedance do you expect with the loop resonated?

It should be under 1 ohm. I don't exactly know the ac resistance or
how the Q of the C and the Q of the inductor combine.

My loop material is 2/0 copper welding cable, many fine starnds. I
considered 3 inch copper pipe, but couldn't get an estimate of the ac
resistance for either, so I chose the copper cable.

Regards,

T

2775. Re: ICOM Band Decoder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 23:53:32 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <nridnVSM3_pj7sDeRVn-tw@comcast.com>
Source record: 68371

"Dave" <kb8nnu@charter.net> wrote in message
news:1130174597.371939.252270@g43g2000cwa.googlegroups.com...
> Howdy...I am interested in building a cheap and easy band decoder for
> an icom 706mkIIg that will ultimately be used for switching relays on a
> remote antenna switch. I have searched around and found a few people
> that make them and offer kits, but would like to see if anyone has
> built one with good results. Any help or ideas would greatly be
> appreciated...
>
> Thanks,
>
> Dave
>
Elecraft also has a kit -- look at the KRC2 kit .... should offer everything
you want ... Elecraft mail reflector has many happy builders.
http://www.elecraft.com/KRC2/krc2.htm

w9gb

2776. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-24 23:57:07 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130198226.999340.13750@g49g2000cwa.googlegroups.com>
Source record: 68372

I'm puzzled. My copy of rjeloop3 suggests the Q will be about 200 at 60kHz with a 9mm wire diameter, and you'll see about 2kohms when it's resonated. Are you not taking the output across the ends of the loop (across the capacitor)? And with a skin depth of about 0.01" at 60kHz in copper, certainly 3" diameter soft copper pipe would have the lower resistance. You might have some trouble finding soft copper pipe, though. But even hard copper pipe should have a low RF resistance. "Reference Data for Radio Engineers" (or "Reference Data for Engineers" in newer incarnations) has lots of good info for figuring out things like RF resistance of copper wire. I assume your welding cable doesn't have strands that are insulated from each other like Litz wire.

Consider that Q is energy stored divided by energy dissipated per radian (1/2pi of a cycle). Then the net Q will be 1/(1/Q(inductor) + 1/Q(capacitor)). So if the cap and inductor have the same Q, the net Q will be half that. And if you put a resistive load across the coil+cap, that will dissipate power and lower the Q further.

Cheers,
Tom

2777. Re: ICOM Band Decoder...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 00:09:42 UTC
From: Dave <kb8nnu@charter.net>
Message-ID: <1130198982.306680.202760@g43g2000cwa.googlegroups.com>
Source record: 68373

Thanks for the info guys. I wasn't aware that Elecraft made a decoder too. That type of decoder is a possibility too. I'm not reall sure which way I want to go with the decoder yet- use the analog voltages or the CI-V bus...??? So we see what else I can find and try to make up my mind. I guess ON4AOI (http://www.on4aoi.be/) makes a decent kit for decoding too.

Thanks again,

Dave
KB8NNU

2778. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 00:50:14 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96F9B58783100spectrumhogstarbandn@207.106.92.175>
Source record: 68374

"k6zsr" <k6zsr@k6zsr.com> wrote in news:3Cb7f.3302$UF4.2370@fed1read02:

> After 47 years of hamming, I found that this is the best way to clean
> corroded stranded #14 copper antenna wire (may also work on #12)
> especially if you experience another "Rita"
>
> 1.) Make yourself a strong MargaRITA drink using ONLY Hornitos
> Tequilla. 2.) After you finish drinking the MargaRITA, dip the end of
> your antenna wire into the residue at the bottom of the glass.
> 3.) Using the lemon slice, carefully wipe the end of your antenna wire
> clean.
> 4.) Repeat 1 through 3 four times.

Hmmm... repeate all steps four times? I expect after drinking five
Margaritas I won't even be able to find my way out of the room.....

Ed K7AAT

2779. Re: EZNEC Lengths for 15 M Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 02:58:50 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <P_adnUrt7uKAAsDenZ2dnUVZ_sqdnZ2d@comcast.com>
Source record: 68375

"Rockinghorse Winner" <rockinghorse@phreaker.net> wrote in message
news:36rql195doml4lcct8intp00b9nnco2b5u@4ax.com...
> On Sat, 22 Oct 2005 15:59:07 -0400, "Tam/WB2TT" <t-tammaru@c0mca$t.net>
> wrote:
>
>
>>
>><jgboyles@aol.com> wrote in message
>>news:1129986453.186411.34010@g44g2000cwa.googlegroups.com...
>>>
>>> Rockinghorse Winner wrote:
>>>> I was checking the lengths for a 15 M dipole up 18 feet and the EZNEC
>>>> calculated length was about 10% longer than using 468/F. I was
>>>> wondering
>>>> if
>>>> the EZNEC calculation takes other factors into consideration and what
>>>> these
>>>> may be? Thanks alot.
>>>>
>>>
>>>>
>>>>
>>>> http://rwinner.blogspot.com
>>> Hi RH, The proximity to ground, the ground type, and the length will
>>> be the factors that determine the source impedance of the dipole. I
>>> just ran a dipole cut for 21.3 Mhz by the formula, 18' up over real
>>> ground and found it to be off by 3%. Moved it up to 36' and it was off
>>> by 1%. Your 10% sounds a bit high. The conductor size of a wire
>>> dipole will have some effect at 15m, but I did not try anything
>>> different than #12 wire.
>>> Gary N4AST
>>>
>>Just to be different, I tried #18 wire. Using 468/f gives a length of 21.9
>>feet at 21.3 MHz. According to EZneck, this is resonant at about 22 MHz. A
>>length of 22.4 feet gave resonance at just a shade above 21.3 MHz. Making
>>the wire 10% long put the resonance below 21 MHz. All at 18 feet.
>>
>>I ran SWR from 21 to 22 MHz, with a step size of .05. Number of segments
>>was
>>19.
>>
>>Tam/WB2TT
>>
>

>
> Yes, I was guessing when I said 10% The actual difference is closer to
> 2-3%
> range. One glaring result of the EZNEC results, is SWR goes down from 1.8
> to
> next to nothing if I substitute a 75 ohm xmission line. I wonder if I
> should
> try some 75 ohm coax in place of the 50 ohm I've bought.
>
> Lee K
>
>
In all likelihood you won't be able to tell the difference. A 1:1 SWR at 75 Ohms still leads to the radio thinking the SWR is 1.5,and the radio will be seeing 75 Ohms at resonance. If you use 50 Ohm coax, the SWR will be theoretically 1.5:1, but the actual impedance can be anywhere on the 1.5 circle of the Smith chart, depending on the length of the coax. Probably, using 75 Ohm line would be more "proper". You probably know that you can make the dipole impedance 50 Ohms by making the center higher, and drooping down the ends. I just wouldn't let the ends go any lower than the 18 feet that you have.

Tam
>
>
>
>
> CUL8R
>
>
>
> R*Horse
>
>
> --
>
>
>
>
> "Take a look behind you - upstream - now you begin to
> recognize this country, don't you?"
>
> "Yes, I do recognize it now. It is the most wonderful
> thing I ever heard of; by a long shot the most
> wonderful - and unexpected."
>
> Mark Twain
> Life on the Mississippi
>
>

>
> http://rwinner.blogspot.com

2780. Re: Emergency Messaging, AM/FM *On Locomotive*

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 08:22:46 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <mj6133-aum.ln1@fimbul.myth>
Source record: 68376

On Thu, 20 Oct 2005 09:36:05 -0500,
Richard Harrison <richardharrison@webtv.net> wrote:
> Jim Richardson wrote:
>
> "Primarily two things, alerting pre-evac and at grade crossing alerts
> that a high speed locomotive is approaching."
>
> Trains are a big part of successful evacuation. When Rita approached
> Texas, officials asked for more Amtrack trains and got them , though not
> enough, to evacuate Galveson and surrounding areas. No reports pf
> injuries to evacuees on trains, but many in autos and aboard busses died
> in traffic jams on highways.
> The nation needs a rail system especially in emergencies.
>
> Best regards, Richard Harrison, KB5WZI
>

please have a care with your attributions, I wrote none of the bits you
quoted.

--
Jim Richardson http://www.eskimo.com/~warlock
To believe in gun control, one has to believe that guns are not an
effective means of self-defense, which is why police carry them.

2781. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 12:22:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djl82a$82f$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68377

Stranded, layer-wound wire, even when strands are individually
insulated, behaves similar to solid wire of slightly smaller diameter.

The strands in true Litz are WOVEN such that every strand spends the
same length in inside and outside and intermediate layers of the
cable.

Current is then more uniformly distributed throughout the conductor's
cross-section.

The diameter of an individal strand should not be greater than about
about twice skin depth. Otherwise effectiveness decreases. Thus, at
high frequences where skin depth is very small, very fine wire must be
used.

There are practical and economic limits to the fineness of drawn
copper wire. There is little to be gained by using ordinary Litz
above 3 or 4 MHz. At high frequencies with small coils of few turns,
such as receiving coils, tank and loading coils, it is far more
economic to increase Q just by increasing the diameter of solid copper
wire. Litz is at its best from VLF to IF and MF.

Reg.

2782. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 13:47:56 UTC
From: MacVE3GRO@aol.com
Message-ID: <1130248076.652862.52420@g43g2000cwa.googlegroups.com>
Source record: 68378

RB wrote:
> Got some dirty, corroded stranded #14 copper antenna wire I need to
> solder/splice. Limb fell across my antenna during Rita. I need to clean
> off the ends before soldering. What common household product(s) can I put
> the ends in overnite to get 'em shiny and ready to solder?

Try mixture of salt and lemon juice. 73. Harry, VE3GRO

2783. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 16:22:10 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130257330.949208.135330@o13g2000cwo.googlegroups.com>
Source record: 68380

Another set of questions: Given the high atmospheric noise level at LF/VLF, is there really a need for such a large loop as you propose, for receiving? How quiet is your receiver front end? In other words, will such a large loop significantly improve your SNR on weak signals? Do you have a reason other than signal level for using such a large loop? What about the response to nearby strong electric-field noise generators of a large loop versus a smaller one?

Cheers,
Tom

2784. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 20:31:25 UTC
From: johan aeq <pe1aeq@amsat.og>
Message-ID: <3c017$435e97c6$52ad139c$30225@news.versatel.nl>
Source record: 68381

maybe this might help too..
http://j-walk.com/other/wifispray/

"RB" <rbig@bellsouth.nospam.net> schreef in bericht
news:LjS6f.2672$NJ.431@bignews7.bellsouth.net...
> Got some dirty, corroded stranded #14 copper antenna wire I need to
> solder/splice. Limb fell across my antenna during Rita. I need to clean
> off the ends before soldering. What common household product(s) can I put
> the ends in overnite to get 'em shiny and ready to solder?
>
>

2785. antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 21:05:08 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <p4x7f.8913$wG.2612@bignews4.bellsouth.net>
Source record: 68382

There are some commonly occurring lengths for multi-band dipoles. I see 105', 135', and 140'. Is 140' preferred over 135'? If so, what is the benefit of going from 135' to 140'? Just curious.

2786. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 21:40:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ZCx7f.7022$7h7.4276@newssvr21.news.prodigy.com>
Source record: 68383

RB wrote:
> There are some commonly occurring lengths for multi-band dipoles. I see
> 105', 135', and 140'. Is 140' preferred over 135'? If so, what is the
> benefit of going from 135' to 140'? Just curious.

That's about a 3.5% difference. You get just about that much difference
between insulated and uninsulated wire. That much difference in length
doesn't much matter for non-resonant length dipoles. However, for
resonant dipoles, length certainly matters and 140 ft. would probably
be resonant outside of the 80m band. For instance, a resonant 1/2WL
dipole for 3.8 MHz would be about 123 foot long.
--
73, Cecil http://www.qsl.net/w5dxp

2787. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 21:54:35 UTC
From: jgboyles@aol.com
Message-ID: <1130277274.983757.245710@g47g2000cwa.googlegroups.com>
Source record: 68384

Hi RB, With multi-band dipoles you will have to use an antenna tuner. The lengths you see in the charts are chosen such that the antenna+feedline will have an impedance (hopefully) on multiple bands that your antenna tuner can handle. Usually if a 135' dipole won't load on a certain band, the feedline length is changed, because it is easier than bringing down the dipole and changing to 140'.
Gary N4AST

2788. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 22:05:38 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <esatl1t77stvit95uducuhtjf8vvgl4tbf@4ax.com>
Source record: 68385

On Tue, 25 Oct 2005 21:40:09 GMT, Cecil Moore <mycall@arrl.net> wrote:

>That's about a 3.5% difference. You get just about that much difference
>between insulated and uninsulated wire. That much difference in length

Cecil, do you have theoretical or experimental support for the
inference that insulated vs uninsulated wire will be different in
length by around 3.5%? What thickness wire / insulation?

Owen
--

2789. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 23:43:42 UTC
From: TRABEM <>
Message-ID: <8mgtl19fg7lbtc4titunm4vggfcqv72uem@4ax.com>
Source record: 68386

You are absolutely right about the size of the loop.

A larger loop might not enhance the ability to copy a weaker signal. And, I spent a small fortune in buying big wire just to make it have a reasonably high Q. My question about the caps was merely to make sure that I was buying the right type of caps, so that the investment in the larger sized wire didn't get negated by having the wrong type of cap.

At some time I might like to evaluate a smaller loop against the big one in terms of the actual weak signal reception capability.

The receiver is hot on HF and should be just as good on LF and VLF.

Ultimately I'd like a shielded loop, but the effect of the stray capacitance seems to really kill the Q. The shielded loop camp makes a convincing argument in that the magnetic field is significantly quieter than the electrical field is. But, how to do a shielded loop without knocking the Q all to Hell is a significant issue. Needless to say the potential for interference by strong LF broadcasters is much reduced by shielding the loop as well.

One user I spoke to recently commented on the quality of reception with his shielded loop.....signals that were buried in noise by quite a few db seem to pop up into Q5 readability when the shielded loop antenna is switched in. So, I know they work. Just not sure how to implement them without incurring a lot of loss in Q from the stray capacitance introduced by the shielding.

T

On 25 Oct 2005 09:22:10 -0700, "K7ITM" <k7itm@aol.com> wrote:

>Another set of questions: Given the high atmospheric noise level at
>LF/VLF, is there really a need for such a large loop as you propose,
>for receiving? How quiet is your receiver front end? In other words,
>will such a large loop significantly improve your SNR on weak signals?
>Do you have a reason other than signal level for using such a large
>loop? What about the response to nearby strong electric-field noise
>generators of a large loop versus a smaller one?
>
>Cheers,
>Tom

2790. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-25 23:55:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a8htl1hr937510kr5ippjut18o9mj4ohop@4ax.com>
Source record: 68387

On Tue, 25 Oct 2005 19:43:42 -0400, TRABEM <> wrote:

>The shielded loop camp makes a
>convincing argument in that the magnetic field is significantly
>quieter than the electrical field is. But, how to do a shielded loop
>without knocking the Q all to Hell is a significant issue. Needless to
>say the potential for interference by strong LF broadcasters is much
>reduced by shielding the loop as well.

You are tap dancing in the mine field of nonsense. Once you strip
this stuff out of your thinking, you might find your way to a more
sensible antenna design (maybe even a good shielded one - and shielded
for better reasons than those above).

73's
Richard Clark, KB7QHC

2791. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 00:15:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djmhqf$p78$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68388

> do you have theoretical or experimental support for the
> inference that insulated vs uninsulated wire will be different in
> length by around 3.5%? What thickness wire / insulation?
>
> Owen

==========

To calculate change in velocity due to plastic PVC insulation we need
to know :-

Wire diameter = d
Diameter over insulation = D
Height of wire above ground = H
Permittivity of insulating material = K

First calculate capacitance of bare wire to ground.
Then calculate capacitance of insulated wire to ground.
Velocity Factor = SquareRoot of their ratio.
Neither Terman's nor Kraus' Bibles will mention the following
formulae. So you'll just have to take my word for it.

Velocity Factor = SquareRoot((A + B) / C)

Where -

A = K * Ln(4 * H / D)

B = Ln(D / d)

C = K * Ln(4 * H / d)

Example :
Bare wire diameter = 1.6 mm = 14 awg.
Diameter over insulation = 2.6 mm.
Height above ground = 10 metres = 33 feet.
Permittivity of insulation = 3.5

Velocity factor = 0.983
Or a decrease in resonant frequency of 1.7 percent which can nearly
always be forgotten about.

The electrical effect of the enamel on magnet wire is entirely
negligible. But it does protect the wire from atmospheric pollution.

Reg.

2792. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 00:31:02 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130286662.633940.114410@g47g2000cwa.googlegroups.com>
Source record: 68389

You need first to realize that the "shield" IS the antenna. The whole point of the "shielded loop" is that you can make it very symmetrical, which is just what's needed to reject strong local electrical fields. The symmetry does nothing to reject electromagnetic signals. BUT you can make an "unshielded" loop which is as symmetrical as a "shielded", if you are careful, and get the same advantages. If you really want to build one like a classical "shielded loop" and maintain high Q, just build the "shield" out of copper pipe and put the capacitor across the gap. The wire inside the pipe is just the center conductor of a short piece of coax connected to the feedpoint.

If you don't understand this, please see King, Mimno and Wing's "Transmission Lines, Antennas and Waveguides." It's explained quite nicely in the "antennas": chapter. It's also explained reasonably well in Johnson and Jasik's "Antenna Engineering Handbook."

Cheers,
Tom

2793. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 01:30:24 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <Q_A7f.53727$S4.47595@edtnps84>
Source record: 68390

"RB" <rbig@bellsouth.nospam.net> wrote in message
news:p4x7f.8913$wG.2612@bignews4.bellsouth.net...
> There are some commonly occurring lengths for multi-band dipoles. I see
> 105', 135', and 140'. Is 140' preferred over 135'? If so, what is the
> benefit of going from 135' to 140'? Just curious.

Read the following:
http://members.dslextreme.com/users/w6wqc/antenna.html
The data on antenna efficiency is a misinterpretation of the NEC output
file. It refers only to copper losses, and does not include ground losses.
The discussion that "The length of an antenna wire is irrelevant" is the key
point made.

73,

Frank

2794. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 03:01:01 UTC
From: TRABEM <>
Message-ID: <cartl1daucnnn08biem845spoggempdge9@4ax.com>
Source record: 68391

On 25 Oct 2005 17:31:02 -0700, "K7ITM" <k7itm@aol.com> wrote:

>You need first to realize that the "shield" IS the antenna. The whole
>point of the "shielded loop" is that you can make it very symmetrical,
>which is just what's needed to reject strong local electrical fields.
>The symmetry does nothing to reject electromagnetic signals. BUT you
>can make an "unshielded" loop which is as symmetrical as a "shielded",
>if you are careful, and get the same advantages. If you really want to
>build one like a classical "shielded loop" and maintain high Q, just
>build the "shield" out of copper pipe and put the capacitor across the
>gap. The wire inside the pipe is just the center conductor of a short
>piece of coax connected to the feedpoint.
>
>If you don't understand this, please see King, Mimno and Wing's
>"Transmission Lines, Antennas and Waveguides." It's explained quite
>nicely in the "antennas": chapter. It's also explained reasonably well
>in Johnson and Jasik's "Antenna Engineering Handbook."
>

Hi Tom,

No, I don't understand this. I thought a shielded loop meant the loop antenna wire was shielded by the copper (non-ferrous) surrounding the wire. The shield tends to protect the wire from electrical field inputs and allows it to only respond to magnetic field variations.

I thought the capacitance between the wire and the surrounding shield material represented a loss in Q, therefore a loss in output voltage. So, a loop that might have a Q of 100 in free space would have a much lower Q if the loop wire was enclosed in a non-ferrous pipe.

There are countless horror stories about those attempting to use surplus hardline as shielded loops on LF and VLF, all with disappointing results. The predominate attitude was that the capacitive coupling between the wire and the shielding material was the cause. I don't say the predominate attitude is correct.but, if it is a false assumption, then I am not the only one who needs revision:))

If the copper pipe IS the antenna, then why have the wire inside it at all??

I must say I'm more confused now than I was before reading your message.

I'm sorry, I have to leave now. The director of the asylum is calling.....

T

2795. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 07:04:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dl6ul1920nbdhath98quiv3jsu39666dd4@4ax.com>
Source record: 68392

On Tue, 25 Oct 2005 23:01:01 -0400, TRABEM <> wrote:

>No, I don't understand this. I thought a shielded loop meant the loop
>antenna wire was shielded by the copper (non-ferrous) surrounding the
>wire.

It is not an effective antenna shield if it is wholly continuous - and it is not, it has a gap opposite the mounting point which is generally at ground/reference potential. Part of the point of being "shielded" is to enforce a symmetry and that ground/reference is electrically neutral as long as you guarantee it is equidistant both sides around the loop to that gap.

> The shield tends to protect the wire from electrical field
>inputs and allows it to only respond to magnetic field variations.

There is no such thing as "only" magnetic fields variations.

>I thought the capacitance between the wire and the surrounding shield
>material represented a loss in Q,

Q is a simple relation between loss and storage. Lower Q for the same storage (be it in a capacitor or an inductor) can only result from resistive loss of Ohmic conduction or radiation. Any loss attributable to a capacitor is conductive loss - hence the discussion of ESR. You would have to go back to the stone age of electronics with paper and wax dielectrics to find loss BETWEEN the plates. Equivalent Series Resistance for garden variety capacitors, when compared to radiation resistance, is not trivial. That is, unless, you swamp that loss by putting your loop in the closet with your mothballed summer wardrobe or burying it in the garden mud. Design for failure is easily achieved if you need a rationale to ignore simple considerations.

Consult:
http://www.w8ji.com/magnetic_receiving_loops.htm

>There are countless horror stories about those attempting to use
>surplus hardline as shielded loops on LF and VLF, all with
>disappointing results.

Such disasters that arise are one of two possible scenarios:
1. They don't have a gap (short circuit city);
2. They don't guarantee symmetry (poor balance, poor tuning, poor response).

>The predominate attitude was that the
>capacitive coupling between the wire and the shielding material was
>the cause. I don't say the predominate attitude is correct.but, if it
>is a false assumption, then I am not the only one who needs
>revision:))

We get that traffic - yes. They suffer the same learning slope.

>If the copper pipe IS the antenna, then why have the wire inside it at
>all??

Because you have to have a conductor pair back to the receiver. The grounded "shield" serves as one half of the pair, the other spans the gap connecting to the other half's "shield" (it looks like you are shorting the inner conductor to ground) to thus pick up the opposite potential. The voltage across the gap is thus sensed and it only takes one wire. Look closely at any such standard "shielded" loop. The sense of what is being shielded is THAT conductor which you contrive to keep in a controlled environment (a coaxial shield) and away from the imbalance of nearby capacitive couplings. The "shielded" inner conductor spans a very small distance whose opposite poles' capacity is balanced to all neighboring paths to ground. That is, unless you push one side up against the wall.

Stretch out the gap of the shield loop and you have a conventional dipole. A conventional dipole exhibits high Z and high V at its tips. The middle of such a dipole has a low Z and a high I. With respect to both ends, the middle is neutral and strapping it to a conductor does nothing to change that topology (and is a common tower mounting benefit). Being curved into a loop does not change this and allows you to connect your transmission line to both sides without greatly exposing a significant length of the transmission line (and thus forcing an unbalance and upsetting the applecart).

This dipole is obviously very small with respect to its wavelength and thus some form of end loading is required. Thus the capacitor arrives on the scene. The circulating currents and potentials become astronomic for progressively smaller antennas. Those currents flow through and to the plates of the capacitor. If you don't choose the right components for that capacitor (and manufacturers of HF loops like to crow how they achieve this) then your design efficiency goes TU. Hence to speak of capacitor Q is not appropriate as the correct term is D (dissipation factor). It is certainly related (an inverse relation) and despite comments to the contrary, D is resolvable with standard bridges (although those bridges are of considerable design sophistication in maintaining balance and their own shielding - not a trivial matter).

There are simpler ways of achieving the same thing by building a completely exposed loop with capacitor (still paying attention to the ESR and keeping the whole shebang out of the mud), and simply building a shielded coupling loop. Reg has adequately described this before many times.

73's
Richard Clark, KB7QHC

2796. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 10:55:36 UTC
From: Krzysztof <kh@silesianet.pl>
Message-ID: <djnne6ckh1@kujawiak.man.lodz.pl>
Source record: 68393

> There are some commonly occurring lengths for multi-band dipoles. I see
> 105', 135', and 140'. Is 140' preferred over 135'? If so, what is the
> benefit of going from 135' to 140'? Just curious.

Pse look at the web: http://www.qsl.net/aa1ll/cfwire.htm
Depending on your location (length of the feeder and free space for the
dipole) consider Region 1, 3 or G5RV Region.

73 Chris SP7ICE

2797. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 10:57:02 UTC
From: Krzysztof <kh@silesianet.pl>
Message-ID: <djnne8ckh2@kujawiak.man.lodz.pl>
Source record: 68394

> There are some commonly occurring lengths for multi-band dipoles. I see
> 105', 135', and 140'. Is 140' preferred over 135'? If so, what is the
> benefit of going from 135' to 140'? Just curious.

Pse look at the web: http://www.qsl.net/aa1ll/cfwire.htm
Depending on your location (length of the feeder and free space for the
dipole) consider Region 1, 3 or G5RV Region.

73 Chris SP7ICE

2798. Twisted antenna farm

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 13:37:29 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <djo0qo$ft9$1@mailhub227.itcs.purdue.edu>
Source record: 68395

Antenna farm turned to junk.
http://s47.yousendit.com/d.aspx?id=1J4BL8XN5MT2434J4UB0NHYAB6

2799. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 14:19:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <hgM7f.6695$dO2.571@newssvr29.news.prodigy.net>
Source record: 68396

Owen Duffy wrote:
> Cecil, do you have theoretical or experimental support for the
> inference that insulated vs uninsulated wire will be different in
> length by around 3.5%? What thickness wire / insulation?

Owen, that info came from Roy, W7EL, who built it into the latest version of EZNEC. It has to do with the VF of insulated wire Vs uninsulated wire which affects wire antennas as well as transmission lines.

I discovered it for myself when I was building vertical loop antennas many years ago. The equation 1005/f wasn't even close using insulated wire.

For instance, my 130 foot bare copper wire dipole is resonant at 3.633 MHz according to EZNEC. Adding 0.05 inch of PE insulation drops the resonant frequency to 3.526 MHz, about a 3% drop according to EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

2800. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 15:23:35 UTC
From: TRABEM <>
Message-ID: <997vl1ldsfroag1bsdgfomq0jg5cp0nnbn@4ax.com>
Source record: 68397

Thanks Richard,

I have a bunch of reading to do. Appreciate your time and the
explanation that you gave.

My receiver has a 2 to 3 ohm input impedance, my hope was to use a
series tuned loop that was entirely floating (with no ground anywhere)
and feed it to the house with a balanced line. Since it's a short run
to the house (in terms of wavelength, I had hoped the impedance
mismatch between the 90 ohm impedance twisted pair transmission line
would not produce a big loss.

The receiver input is also untuned, so the only selectivity available
to it will be the antenna selectivity, which I think I can get away
with since the antenna is relatively high Q.

Again, thanks for the info and for the web resource. I have some more
studying to do!

Regards,

T

>On Tue, 25 Oct 2005 23:01:01 -0400, TRABEM <> wrote:
>
>>No, I don't understand this. I thought a shielded loop meant the loop
>>antenna wire was shielded by the copper (non-ferrous) surrounding the
>>wire.
>
>It is not an effective antenna shield if it is wholly continuous - and
>it is not, it has a gap opposite the mounting point which is generally
>at ground/reference potential. Part of the point of being "shielded"
>is to enforce a symmetry and that ground/reference is electrically
>neutral as long as you guarantee it is equidistant both sides around
>the loop to that gap.
>
>> The shield tends to protect the wire from electrical field
>>inputs and allows it to only respond to magnetic field variations.
>
>There is no such thing as "only" magnetic fields variations.
>
>>I thought the capacitance between the wire and the surrounding shield
>>material represented a loss in Q,
>
>Q is a simple relation between loss and storage. Lower Q for the same
>storage (be it in a capacitor or an inductor) can only result from

>resistive loss of Ohmic conduction or radiation. Any loss
>attributable to a capacitor is conductive loss - hence the discussion
>of ESR. You would have to go back to the stone age of electronics
>with paper and wax dielectrics to find loss BETWEEN the plates.
>Equivalent Series Resistance for garden variety capacitors, when
>compared to radiation resistance, is not trivial. That is, unless,
>you swamp that loss by putting your loop in the closet with your
>mothballed summer wardrobe or burying it in the garden mud. Design
>for failure is easily achieved if you need a rationale to ignore
>simple considerations.
>
>Consult:
>http://www.w8ji.com/magnetic_receiving_loops.htm
>
>>There are countless horror stories about those attempting to use
>>surplus hardline as shielded loops on LF and VLF, all with
>>disappointing results.
>
>Such disasters that arise are one of two possible scenarios:
>1. They don't have a gap (short circuit city);
>2. They don't guarantee symmetry (poor balance, poor tuning, poor
>response).
>
>>The predominate attitude was that the
>>capacitive coupling between the wire and the shielding material was
>>the cause. I don't say the predominate attitude is correct.but, if it
>>is a false assumption, then I am not the only one who needs
>>revision:))
>
>We get that traffic - yes. They suffer the same learning slope.
>
>>If the copper pipe IS the antenna, then why have the wire inside it at
>>all??
>
>Because you have to have a conductor pair back to the receiver. The
>grounded "shield" serves as one half of the pair, the other spans the
>gap connecting to the other half's "shield" (it looks like you are
>shorting the inner conductor to ground) to thus pick up the opposite
>potential. The voltage across the gap is thus sensed and it only
>takes one wire. Look closely at any such standard "shielded" loop.
>The sense of what is being shielded is THAT conductor which you
>contrive to keep in a controlled environment (a coaxial shield) and
>away from the imbalance of nearby capacitive couplings. The
>"shielded" inner conductor spans a very small distance whose opposite
>poles' capacity is balanced to all neighboring paths to ground. That
>is, unless you push one side up against the wall.
>
>Stretch out the gap of the shield loop and you have a conventional
>dipole. A conventional dipole exhibits high Z and high V at its tips.
>The middle of such a dipole has a low Z and a high I. With respect to

>both ends, the middle is neutral and strapping it to a conductor does
>nothing to change that topology (and is a common tower mounting
>benefit). Being curved into a loop does not change this and allows
>you to connect your transmission line to both sides without greatly
>exposing a significant length of the transmission line (and thus
>forcing an unbalance and upsetting the applecart).
>
>This dipole is obviously very small with respect to its wavelength and
>thus some form of end loading is required. Thus the capacitor arrives
>on the scene. The circulating currents and potentials become
>astronomic for progressively smaller antennas. Those currents flow
>through and to the plates of the capacitor. If you don't choose the
>right components for that capacitor (and manufacturers of HF loops
>like to crow how they achieve this) then your design efficiency goes
>TU. Hence to speak of capacitor Q is not appropriate as the correct
>term is D (dissipation factor). It is certainly related (an inverse
>relation) and despite comments to the contrary, D is resolvable with
>standard bridges (although those bridges are of considerable design
>sophistication in maintaining balance and their own shielding - not a
>trivial matter).
>
>There are simpler ways of achieving the same thing by building a
>completely exposed loop with capacitor (still paying attention to the
>ESR and keeping the whole shebang out of the mud), and simply building
>a shielded coupling loop. Reg has adequately described this before
>many times.
>
>73's
>Richard Clark, KB7QHC

2801. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 16:27:44 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130344064.817342.63120@f14g2000cwb.googlegroups.com>
Source record: 68398

I could perhaps scan the relevant pages of the references I
mentioned...

How are you planning to couple your 2-ohm load to your loop without
doing really bad things to its Q? (And just what sort of detector do
you have that represents a 2 ohm load?)

Cheers,
Tom

2802. A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 17:07:11 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <aJO7f.119$ZP1.101@dukeread11>
Source record: 68399

I am reading the 19th edition of the ARRL Antenna Book. I am unclear which polarization to use if I want 2 Helical antennas to talk to each other. In the book it says, ". . . when two stations use helical antennas over a non reflective path, both must use antennas with the same polarization sense.." I find this could be interpreted in different ways and is not clear at all. It seems logical to me that if both antennas had the same polarization that when they faced each other they two helices would be in opposite directions and that would seem to be bad. Am I right?

It says the circumference can be between 1.33 wavelengths and .75 wavelengths. From the gain formula it would seem that the 1.33 figure would give the most gain for a given length of the antenna. Other than mechanical considerations is there any reason I wouldn't want to use the 1.33 number?

Finally, I may have missed it, but I didn't see anything that indicated how large of a wire or tube I should use for the helix. I am guessing this is just a mater of how much power I plan on feeding it with?

PS I would like to build 2 of these one is for 2.4ghz wireless network and one is 432 mhz amateur band EME and or satellite work. So the 2.4ghz version will likely never see more than 100 mW but could see as much as 1 watt. The 432 mhz version could see as much as 1000 watts, but if I did that it would be to an array of 4 of them so I guess each one would only see 250 watts?

--
Chris W

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2803. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 18:13:13 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <u3hvl11t2tdbsch0eam6uqq1n4jhbc2dii@4ax.com>
Source record: 68400

Hi,

>other. In the book it says, ". . . when two stations use helical
>antennas over a non reflective path, both must use antennas with the
>same polarization sense.." I find this could be interpreted in
>different ways and is not clear at all. It seems logical to me that if
>both antennas had the same polarization that when they faced each other
>they two helices would be in opposite directions and that would seem to
>be bad. Am I right?

On your first point, imagine you've constructed a long, long
helix that starts at your location and travels all the way to the
other station. It is logical that a wave launched by you would
then travel unimpeded along it to the far location. Now cut the
helix in the middle and turn one end around. What you will then
see is two helices rotating in the same direction, that is both
ends will have the same direction of rotation.

Can't help you with the rest unfortunately.

Cheers - Joe

2804. A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 22:11:03 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_435fe4a2@fidonet.org>
Source record: 68401

"Chris W" bravely wrote to "All" (26 Oct 05 12:07:11)
--- on the heady topic of "A few Helical Antenna question"

CW> From: Chris W <1qazse4@cox.net>
CW> Xref: core-easynews rec.radio.amateur.antenna:219311

CW> I am reading the 19th edition of the ARRL Antenna Book. I am unclear
CW> which polarization to use if I want 2 Helical antennas to talk to each
CW> other. In the book it says, ". . . when two stations use helical
CW> antennas over a non reflective path, both must use antennas with the
CW> same polarization sense.." I find this could be interpreted in
CW> different ways and is not clear at all. It seems logical to me that
CW> if both antennas had the same polarization that when they faced each
CW> other they two helices would be in opposite directions and that would
CW> seem to be bad. Am I right?

"Same polarization sense" means with respect to the traveling
wavefront. When the transmitting antenna is nose to nose with the
receiving antenna, the combination will corkscrew in one sense only.

A*s*i*m*o*v

... "Losing my virginity was a career movement." -- Madonna

2805. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 22:45:11 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <XFT7f.16101$Io4.10980@trnddc06>
Source record: 68402

"Joe McElvenney" <ximac@btinternet.com> wrote in message
news:u3hvl11t2tdbsch0eam6uqq1n4jhbc2dii@4ax.com...
> Hi,
>
>>other. In the book it says, ". . . when two stations use helical
>>antennas over a non reflective path, both must use antennas with the
>>same polarization sense.." I find this could be interpreted in
>>different ways and is not clear at all. It seems logical to me that if
>>both antennas had the same polarization that when they faced each other
>>they two helices would be in opposite directions and that would seem to
>>be bad. Am I right?
>
> On your first point, imagine you've constructed a long, long
> helix that starts at your location and travels all the way to the
> other station. It is logical that a wave launched by you would
> then travel unimpeded along it to the far location. Now cut the
> helix in the middle and turn one end around. What you will then
> see is two helices rotating in the same direction, that is both
> ends will have the same direction of rotation.
>
> Can't help you with the rest unfortunately.
>
>
> Cheers - Joe

Hi Chris

I have some thoughts to share about how the CP antennas need to be
polarized, transmit and receive. But, I couldnt make any clearer than Joe
does.
Let me know if any additional text would be helpful.

Jerry

2806. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-26 22:49:00 UTC
From: nx7u@arrl.net
Message-ID: <436006b7.634430@news.west.cox.net>
Source record: 68403

On Wed, 26 Oct 2005 12:07:11 -0500, Chris W <1qazse4@cox.net> wrote:

>I am reading the 19th edition of the ARRL Antenna Book. I am unclear
>which polarization to use if I want 2 Helical antennas to talk to each
>other. In the book it says, ". . . when two stations use helical
>antennas over a non reflective path, both must use antennas with the
>same polarization sense.." I find this could be interpreted in
>different ways and is not clear at all. It seems logical to me that if
>both antennas had the same polarization that when they faced each other
>they two helices would be in opposite directions and that would seem to
>be bad. Am I right?

Wind the two in the same "screw sense" (i.e., both clockwise out to
the far end, or both CCW out to the far end) and they will be same
sense.

>
>It says the circumference can be between 1.33 wavelengths and .75
>wavelengths. From the gain formula it would seem that the 1.33 figure
>would give the most gain for a given length of the antenna. Other than
>mechanical considerations is there any reason I wouldn't want to use the
>1.33 number?

The higher gains give higher sidelobes too. For earth-earth paths
that probably isn't a major issue. For satellite work it can be
significant.

>
>Finally, I may have missed it, but I didn't see anything that indicated
>how large of a wire or tube I should use for the helix. I am guessing
>this is just a mater of how much power I plan on feeding it with?

Not really, any more so than with building a dipole. A popular
material for 70cm is 1/4" copper tubing, which you can easily get in
50' lengths at the hardware store. Look for refrigerator tubing in
the plumbing supply section.

>
>PS I would like to build 2 of these one is for 2.4ghz wireless network
>and one is 432 mhz amateur band EME and or satellite work. So the
>2.4ghz version will likely never see more than 100 mW but could see as
>much as 1 watt. The 432 mhz version could see as much as 1000 watts,
>but if I did that it would be to an array of 4 of them so I guess each
>one would only see 250 watts?
>

True.
But for EME/Satellite work, helices are not ideal for reception.
Transmit is fine, but the sidelobe levels cause weak signal noise
problems. If the satellite has plenty of downlink power it may not be
a problem, but EME would definitely be an issue. Not to mention that
you really need switchable polarization for EME, and to do that
effectively with a helix requires two of them!

>--
>Chris W
>
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>from anywhere, for any occasion!
>http://thewishzone.com

2807. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 00:58:26 UTC
From: DaveM <masondg4499@comcast99.net>
Message-ID: <kLidnZI4Icyuu_3eRVn-1Q@comcast.com>
Source record: 68404

"K7ITM" <k7itm@aol.com> wrote in message
news:1130344064.817342.63120@f14g2000cwb.googlegroups.com...
>I could perhaps scan the relevant pages of the references I
> mentioned...
>
> How are you planning to couple your 2-ohm load to your loop without
> doing really bad things to its Q? (And just what sort of detector do
> you have that represents a 2 ohm load?)
>
> Cheers,
> Tom
>

He probably measured the DC resistance at the antenna input connector. If
there's an inductance path to ground, then that's probably what he measured.
The DC resistance is NOT the RF impedance of the input.

Cheers!!!!

--
Dave M
MasonDG44 at comcast dot net (Just substitute the appropriate characters in
the address)

Never take a laxative and a sleeping pill at the same time!!

2808. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 04:36:07 UTC
From: TRABEM <>
Message-ID: <39m0m1dr0l63m0p867vu4h532sbnhshe19@4ax.com>
Source record: 68405

On Wed, 26 Oct 2005 20:58:26 -0400, "DaveM"
<masondg4499@comcast99.net> wrote:

>"K7ITM" <k7itm@aol.com> wrote in message
>news:1130344064.817342.63120@f14g2000cwb.googlegroups.com...
>>I could perhaps scan the relevant pages of the references I
>> mentioned...
>>
>> How are you planning to couple your 2-ohm load to your loop without
>> doing really bad things to its Q? (And just what sort of detector do
>> you have that represents a 2 ohm load?)
>>
>> Cheers,
>> Tom
>>
>
>He probably measured the DC resistance at the antenna input connector. If
>there's an inductance path to ground, then that's probably what he measured.
>The DC resistance is NOT the RF impedance of the input.
>

NO.

>Cheers!!!!

2809. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 05:07:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u3o0m1dhshbjo4tm04hf34nltrol0q7af2@4ax.com>
Source record: 68406

On Thu, 27 Oct 2005 00:36:07 -0400, TRABEM <> wrote:

>NO.

The group deserves a better specification for the input Z of your amp
than that.

73's
Richard Clark, KB7QHC

2810. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 05:09:48 UTC
From: TRABEM <>
Message-ID: <3bm0m1dmvfl7l94m5vqnhtm3pae9kuls0p@4ax.com>
Source record: 68407

On 26 Oct 2005 09:27:44 -0700, "K7ITM" <k7itm@aol.com> wrote:

>I could perhaps scan the relevant pages of the references I
>mentioned...
>

No, I can get them att he schools library I think. thanks for the
offer.

>How are you planning to couple your 2-ohm load to your loop without
>doing really bad things to its Q?

Is it better to convert the loop to a higher impedance just to feed it
into the house? It appears that anything I do is going to knock the
heck out of the antennas Q though.

I have not decided whether to mount the receiver at the antenna yet,
or whether to run the twisted line directly into the house from the
antenna (since it's a short run). Most likely it will have a short run
of cat 5 cable going from the antenna to a 1 to 1 toroid transformer
located in the receiver. The only selectivity for the receiver will be
the antenna itself. The receiver is very small, and uses very little
power, so it's pretty feasible to mount the entire receiver at the
antenna and run a balanced line feed of the audio into the house.

> (And just what sort of detector do
>you have that represents a 2 ohm load?)

Is it better to convert the loop to a higher impedance just to feed it
into the house?

It's an analog switch input, modified by my neighbor that gave me one
of them. The switch vendor says the switch series resistance should be
around 3 ohms, but it measures around 2.5 ohms. Probably is a little
lower than expected due to the integrating capacitors (.1 uF) which
are hung on the output of each switch. The .1's go to ground.

I measured it twice, once with a 1:1:1 isolation transformer and once
with a 6:1:1 isolation transformer....The tester looses accuracy at
low impedances, so we repeated the measurement with the generator
feeding the high impedance side of the a transformer also. I got
nearly the same reading after correcting for the transformers
impedance step down value, since both readings agree pretty well with
the switch vendors ratings, it's very likely that the receiver input
impedance is around 2 ohms.

> (And just what sort of detector do
>you have that represents a 2 ohm load?)
>
>Cheers,
>Tom

2811. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 06:02:53 UTC
From: TRABEM <>
Message-ID: <95r0m15arpc63lg4rduhho9mmtbmuth2u9@4ax.com>
Source record: 68408

On Wed, 26 Oct 2005 22:07:48 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 27 Oct 2005 00:36:07 -0400, TRABEM <> wrote:
>
>>NO.
>
>The group deserves a better specification for the input Z of your amp
>than that.
>

Yes, of course they do Richard.

However, the reply was more than Dave deserved after the statement
that he made. Maybe that's how he measures receiver input impedance, I
certainly don't measure it like that.

You should have the schematic in your mailbox by the time you get this
message.

I can't post a schematic here.

T

>73's
>Richard Clark, KB7QHC

2812. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 06:27:14 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130394434.633082.224750@g49g2000cwa.googlegroups.com>
Source record: 68409

The point is that the loop's inductive reactance is on the order of 10 ohms in the frequency range you're talking about. When resonated with a capacitor, if the Q is, say, 300, then the impedance at resonance will be about 3000 ohms, resistive, as seen across the capacitor. Reg's program gives you an estimate of what it will be. If you put a low-resistance load across that, the Q will drop drastically. And if you put your 2 ohms (which it won't be at the received frequency, if I understand what you have) in series with the loop and capacitor, it will also drastically lower the Q. So my question remains: how will you couple to the loop and maintain the Q?

When you measure the input impedance of your detector, you should do it while the detector is operating, and do it versus frequency. I expect you'll see a large increase in impedance at the operating frequency.

Cheers,
Tom

2813. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 06:37:17 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <s6t0m1d0gncuvkgt7gdunm5cjttu0s0iog@4ax.com>
Source record: 68410

On Mon, 24 Oct 2005 18:03:49 -0400, TRABEM <> wrote:

>>Assume the wire diameter is a conservative thick 2mm.
>>
>
>Assume nothing Reg.

Well T, reading through the thread you seem to be real short on relevant information (ie you don't adequately anticipate the information people need to answer your questions), then very ready to deal abruptly with people who make the wrong assumptions about the context.

Owen
--

2814. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 07:01:25 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5ju0m1977p4thid6gb09upudula83emqsh@4ax.com>
Source record: 68411

On Wed, 26 Oct 2005 00:15:11 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> do you have theoretical or experimental support for the
>> inference that insulated vs uninsulated wire will be different in
>> length by around 3.5%? What thickness wire / insulation?
>>
>> Owen
>
>==
>
>To calculate change in velocity due to plastic PVC insulation we need
>to know :-
>
>Wire diameter = d
>Diameter over insulation = D
>Height of wire above ground = H
>Permittivity of insulating material = K
>
>First calculate capacitance of bare wire to ground.
>Then calculate capacitance of insulated wire to ground.
>Velocity Factor = SquareRoot of their ratio.
>Neither Terman's nor Kraus' Bibles will mention the following
>formulae. So you'll just have to take my word for it.
>
>
>Velocity Factor = SquareRoot((A + B) / C)
>
>Where -
>
>A = K * Ln(4 * H / D)
>
>B = Ln(D / d)
>
>C = K * Ln(4 * H / d)
>
>Example :
>Bare wire diameter = 1.6 mm = 14 awg.
>Diameter over insulation = 2.6 mm.
>Height above ground = 10 metres = 33 feet.
>Permittivity of insulation = 3.5
>
>Velocity factor = 0.983
>Or a decrease in resonant frequency of 1.7 percent which can nearly

>always be forgotten about.
>
>The electrical effect of the enamel on magnet wire is entirely
>negligible. But it does protect the wire from atmospheric pollution.

Thanks Reg. I had not doubt there was an effect, but it was the arbitrary percentage figure that was implied irrespective of physical parameters which could have a large range (such as your examples).

Clearly, the effect is a minor one in practical HF wire antenna cases compared to the influence of nearby structures, ground conditions etc, and one that is adequately dealt with by normal expectations of trimming length of an antenna for resonance (where that is the objective) rather than "designing" for the insulation factor.

Owen
--

2815. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 07:29:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8pt0m1502qj8kv8lqnirsqtndn89t6bnkg@4ax.com>
Source record: 68412

On Thu, 27 Oct 2005 02:02:53 -0400, TRABEM <> wrote:

>You should have the schematic in your mailbox by the time you get this
>message.

If I am to translate the annotation correctly (and it is obviously in error - R10 and R12 are not the pair being changed), then Input Z somewhere in your frequencies of interest (you've named several) runs around 10 Ohms with the switch itself attenuating your signal by 6 to 10dB. This, of course, says nothing of the abysmal match to the antenna whose Q will be buried in potter's field.

I gather that the switch operates as a baseband quadrature/synchronous detector. It looks suspiciously like it will either short the input, or leave one half dangling, but I trust you got the schematic from a good source. I won't bother to try to verify the logic.

The roll-off frequency of the amplifier(s) is at the bottom of the AM band, it would do better to track the oscillator frequency about one seventh below so that AM signals are depressed below WWVB instead of competing with it. Increase the caps from 470pF to 3300pF.

The reason why you want low front end Input Z is to satisfy the amplifier topology (the gain will be roughly half what it is probably specified at). This could have been done better in half a dozen different ways with the same active parts.

The problem here is some bozo marked the input "antenna" and removed the necessary follower amplifier that would have been fed by the antenna which would in turn feed this circuit through the transformer. This sucker, as drawn, is going to be deaf, deaf, DEAF. If you hear WWVB it will be by virtue of their strong power, not by any quality of design here.

To unplug this design's ears and make up for the massive goof, add a FET follower. Load the FET drain with a 2.2 Ohm resistor and make sure you couple the signal through a large cap feeding the transformer. Also, bias the FET on with a hi Z divider so you don't wipe out the Q of the antenna. I will bet that even the proposed "I" and "Q" paths are mislabled or missapplied.

73's
Richard Clark, KB7QHC

2816. Re: Twisted antenna farm

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 11:19:12 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <J_2dnRA8guMoKv3eRVn-tg@comcast.com>
Source record: 68413

"John N9JG" <john@gotwals.xremovey.com> wrote in message
news:djo0qo$ft9$1@mailhub227.itcs.purdue.edu...
> Antenna farm turned to junk.
> http://s47.yousendit.com/d.aspx?id=1J4BL8XN5MT2434J4UB0NHYAB6
Tower is history - BX series ?
The 3 element beam (Cushcraft A3S?) appears to be salvageable

The other tower is still standing.

gb

2817. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 15:06:13 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <707733-bio.ln1@p400bob.personal.cox.net>
Source record: 68415

Just an extra comment Chris.

The "non reflective path" is also real important. As a circular polarised signal reflects off objects, it changes polarisation to the opposite sense. You'll find that "opposite polarised" in circular has far more (in practice) attenuation than for plane antenna cross polarisation.

If your path has an odd number of reflections you have to use the opposite polarisation at each end.

Cheers Bob VK2YQA

Chris W wrote:

> I am reading the 19th edition of the ARRL Antenna Book. I am unclear
> which polarization to use if I want 2 Helical antennas to talk to each
> other. In the book it says, ". . . when two stations use helical
> antennas over a non reflective path, both must use antennas with the
> same polarization sense.."

2818. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 15:42:39 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <Pz68f.36399$hP6.2837@trnddc05>
Source record: 68414

> PS I would like to build 2 of these one is for 2.4ghz wireless network
> and one is 432 mhz amateur band EME and or satellite work. So the 2.4ghz
> version will likely never see more than 100 mW but could see as much as 1
> watt. The 432 mhz version could see as much as 1000 watts, but if I did
> that it would be to an array of 4 of them so I guess each one would only
> see 250 watts?
>
> --
> Chris W
>

EME on 432 is linearly polarized (although switching polarities to make up for Faraday rotation can be advantageous) - you'll be throwing away a huge 3dB, have higher sidelobes than a well designed Yagi (nullifying the low sky temp advantage of deep space) and less gain per boom length than a good Yagi- all in all, a dismal choice for EME.

Dale W4OP

2819. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 16:23:46 UTC
From: TRABEM <>
Message-ID: <b5o1m1tnf9ouuhb0o5gqb0b8c9fh0c1gm0@4ax.com>
Source record: 68416

>
>>You should have the schematic in your mailbox by the time you get this
>>message.
>
>If I am to translate the annotation correctly (and it is obviously in
>error - R10 and R12 are not the pair being changed), then Input Z
>somewhere in your frequencies of interest (you've named several) runs
>around 10 Ohms with the switch itself attenuating your signal by 6 to
>10dB. This, of course, says nothing of the abysmal match to the
>antenna whose Q will be buried in potter's field.

Hi Richard,

You are correct, the resistors being changed at R11 and R12, sorry for the error. To correct the statement on the schematic, consider R11 and R12 as being changed from 10 ohms to .2 ohms.

I'm not sure what the 'abysmal match to the antenna whose Q will be buried in potter's field' statement is about. With my antenna being in the 2 ohm impedance range, and the receiver being at 10 ohms (I'll use your figure), how can the match be abysmal? Granted, it's not anywhere near ideal. Have you assumed I was using a parallel tuned loop?

Since power transfer is the goal, and the antenna has a lot of ability to reject out of band signals, it was my hope to use the antenna itself as the only (purposely) tuned circuit in the system. Wouldn't converting the antenna impedance to a more traditional 50 ohms with a toroid, and then having a second toroid to convert it back down to 10 ohms also be destructive to the antenna Q and lossy?

>
>I gather that the switch operates as a baseband quadrature/synchronous
>detector. It looks suspiciously like it will either short the input,
>or leave one half dangling, but I trust you got the schematic from a
>good source. I won't bother to try to verify the logic.
>

The logic is good, trust me, the receiver as shown outperforms many much more expensive ones on the market currently. It is based on the receiver shown at:

http://www.qrp2001.freeserve.co.uk/qrp2001rf.gif

It's design has been around for awhile, the first prototype was built in 2000. While I disagree with the use of resistive matching, it should be ok at VLF as the signals are usually quite large there to begin with. For a simple receiver, it is the best answer. Although

ideally, each switch should have it's own 1 ohm variable resistor for absolute best results...the purpose being to swamp out the dynamic switch series resistance differences.

Note the receiver has no rf amp, it isn't needed. The gain is provided by some low noise op amps, and no rf stage is needed. The QRP2001 receiver is designed for 100 KHz to 30 Mhz, but it is only rated down to 1.8 MHz. However, it's worst case sensitivity is .4uV for 10 db sinad.

>The roll-off frequency of the amplifier(s) is at the bottom of the AM
>band, it would do better to track the oscillator frequency about one
>seventh below so that AM signals are depressed below WWVB instead of
>competing with it. Increase the caps from 470pF to 3300pF.
>

Agreed. Thanks.

The 470 pF value was chosen for a wide band spectral display from DC to 96 KHz, which is about the best that generic PC sound cards can do today. If the panoramic view of the surrounding spectrum wasn't necessary, these caps would be much larger in value. As it sits however, it's nice to have a panoramic view of the surrounding spectrum, so the caps might not be changed.

For my purposes, they don't need to be nearly as small as they are, but the original design was for HF...where a wiew of the surrounding spectrum was handy.

>The reason why you want low front end Input Z is to satisfy the
>amplifier topology (the gain will be roughly half what it is probably
>specified at). This could have been done better in half a dozen
>different ways with the same active parts.
>
>The problem here is some bozo marked the input "antenna" and removed
>the necessary follower amplifier that would have been fed by the
>antenna which would in turn feed this circuit through the transformer.
>This sucker, as drawn, is going to be deaf, deaf, DEAF. If you hear
>WWVB it will be by virtue of their strong power, not by any quality of
>design here.
>

WRONG, but I think I understand your error. BTW, the 'bozo' was me:>:.

Again, I think you've assumed it would be fed with a parallel loop resonant antenna.

And, no active components are needed for outstanding performance.

It is possible that the antenna circuit might need to be tuned with passive components, but that possibility needs further evaluation.

>To unplug this design's ears and make up for the massive goof, add a
>FET follower. Load the FET drain with a 2.2 Ohm resistor and make

>sure you couple the signal through a large cap feeding the
>transformer. Also, bias the FET on with a hi Z divider so you don't
>wipe out the Q of the antenna. I will bet that even the proposed "I"
>and "Q" paths are mislabled or missapplied.
>

OK, this is a fair request...from someone without experience in this type of receiver. However, in reality, an rf stage of any sort is unnecessary.

Again, I think you're trying to match a 2 K parallel tuned loop to the relatively low impedance of the receiver input. I noticed you said 'follower'. Which, I think means unity gain, but is used for impedance matching.

Any active component before the audio op amp is STRONGLY DISCOURAGED in this type of receiver. This includes back to back diodes as the receiver switches can handle 4v p-p. It also includes varicap tuning diodes. A front end rf amp should be avoided at all costs, it can only degrade the performance of this type of receiver.

The receiver has incredible immunity to strong out of band signals, much more than any superhet. The nature of the beast is that the quadrature detector cancels them out by (effectively) NOT reinforcing them. The desired signal is however very strongly reinforced. Since we don't need an rf amp to get good sensitivity, any active component before the load capacitors is strongly discouraged.

Even at 60 MHz, the performance is only slightly degraded, and that is due to the inability of the analog switch to enable and disable fast enough to allow reception there. There is a commercial application using this technology that implements receive and transmit with analog switch method and it does not have an RF amp.

Of course, there is a trade off. In order to obtain immunity from strong adjacent out of band signals, we give up the ability to reject harmonics. Harmonics are only attenuated 6 db....so a tuned input must be used if the antenna cannot adequately prevent harmonics of the receiver frequency from entering the receiver.

In theory, a minimum of 6db enhancement is available because there is no mixer, so there is no conversion loss!

The susceptibility to harmonics is a small trade off. Remember, a receiver of this type is wideband, needs no conventional mixers, no detector diode, no transformers, no crystal filters, no IF amps, has no conversion loss and no major non-linear components...thus offers outstanding performance with the cost to build very much reduced (relative to a superhet). What you don't see on the schematic is the incredible sound of the receiver audio which is clean and crisp...it's not quantifiable by bench measurements however.

I've put some links to web references of this technology at the end of the message.

In the meantime, I'd appreciate comments regarding the issue of how well the loop will feed the antenna input for the modified receiver schematic I sent you by email.

Regards,

T

PS:I hope Dave is still with us. Although he probably left when he assumed I measured the input impedance with an ohm meter:>: Dave, are you able to concede that the input impedance of the receiver might be around 2 (or 10) ohms now?

If you want read up on this type of receiver, I can recommend the following:

http://www.qrp2001.freeserve.co.uk/contact.htm

http://www.flex-radio.com/

Flex-Radio makes the quadrature based SDR-1000 transceiver. For a very detailed explanation (without heavy math) of the detector theory, check out the QEX article, part 1 at:

http://www.flex-radio.com/articles_files/SDRFMP1.pdf

And, there are independent product reviews for the SDR-1000 at:

http://www.flex-radio.com/articles_files/index.htm

Dan Tayloes NC2030 high performance signle band transceiver is detailed at:

http://www.qslnet.de/member/df7tv/nc2030_pres_2004_10.pdf

The complete schematics for the NC2030 are at:

http://www.norcalqrp.org/nc2030.htm

Note that the NC2030 uses the same type of detector, but does not use a sound card and does not rely on a computer at all. It is a stand alone transceiver.

There is also a 9Y4 who home brewed a complete transceiver, details at:

http://9y4ar.tripod.com/tayloe_mixer.htm

Although slightly off topic, a low power ssb/cw exciter can be made just as easily as the receiver using the same analog switch technology. The process is simply the reverse process of the detector. To see how simple a high quality transmitter is, try:

http://www.w1tag.com/Phasing.htm

.

2820. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 17:53:11 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <ku88f.1019$ZP1.519@dukeread11>
Source record: 68417

Dale Parfitt wrote:

> > PS I would like to build 2 of these one is for 2.4ghz wireless network
>
>
>>and one is 432 mhz amateur band EME and or satellite work. So the 2.4ghz
>>version will likely never see more than 100 mW but could see as much as 1
>>watt. The 432 mhz version could see as much as 1000 watts, but if I did
>>that it would be to an array of 4 of them so I guess each one would only
>>see 250 watts?
>>
>>--
>>Chris W
>>
>>
>>
> EME on 432 is linearly polarized (although switching polarities to make up
>for Faraday rotation can be advantageous) - you'll be throwing away a huge
>3dB, have higher sidelobes than a well designed Yagi (nullifying the low sky
>temp advantage of deep space) and less gain per boom length than a good
>Yagi- all in all, a dismal choice for EME.
>
>Dale W4OP
>
>
>
>
The calculation in the ARRL Antenna book say that a 12 foot boom with a
circumference of 1.33 wavelengths will give me a 19.9 dbi gain this
should make up for the 3 db loss I think. I haven't seen a yagi that
gives that much gain in with a 12 foot boom. The book also says that
the side lobe problem can be significantly reduced by creating an array
of 4 helical antennas. That should up the gain to 25.9 db. That's
pretty good for EME isn't it? Take it to 16 and you get over 30 db
gain. And the only need to be spaced at 1.5 wavelengths, that's only
3.4 feet.

--
Chris W

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2821. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 18:01:04 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <JB88f.1041$ZP1.85@dukeread11>
Source record: 68418

Jerry Martes wrote:

>"Joe McElvenney" <ximac@btinternet.com> wrote in message
>news:u3hvl11t2tdbsch0eam6uqq1n4jhbc2dii@4ax.com...
>
>
>>Hi,
>>
>>
>>
>>>other. In the book it says, ". . . when two stations use helical
>>>antennas over a non reflective path, both must use antennas with the
>>>same polarization sense.." I find this could be interpreted in
>>>different ways and is not clear at all. It seems logical to me that if
>>>both antennas had the same polarization that when they faced each other
>>>they two helices would be in opposite directions and that would seem to
>>>be bad. Am I right?
>>>
>>>
>> On your first point, imagine you've constructed a long, long
>>helix that starts at your location and travels all the way to the
>>other station. It is logical that a wave launched by you would
>>then travel unimpeded along it to the far location. Now cut the
>>helix in the middle and turn one end around. What you will then
>>see is two helices rotating in the same direction, that is both
>>ends will have the same direction of rotation.
>>
>> Can't help you with the rest unfortunately.
>>
>>
>> Cheers - Joe
>>
>>
>
> Hi Chris
>
> I have some thoughts to share about how the CP antennas need to be
>polarized, transmit and receive. But, I couldnt make any clearer than Joe
>does.
> Let me know if any additional text would be helpful.
>
> Jerry
>
>

>
>
No it makes perfect sense, I don't know what I was thinking. I mean if
you take 2 right hand threaded bolts and have them face each other they
are still right hand threaded and a nut will go of one and right on to
the other spinning the same way. It's obvious now that I think about it.

--
Chris W

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from anywhere, for any occasion!
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2822. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 18:02:18 UTC
From: TRABEM <>
Message-ID: <cd52m1dm5kvoblse7hmegeq093pjfq6f7p@4ax.com>
Source record: 68419

On Thu, 27 Oct 2005 06:37:17 GMT, Owen Duffy <owen@no.where> wrote:

>On Mon, 24 Oct 2005 18:03:49 -0400, TRABEM <> wrote:
>
>
>>>Assume the wire diameter is a conservative thick 2mm.
>>>
>>
>>Assume nothing Reg.
>
>Well T, reading through the thread you seem to be real short on
>relevant information (ie you don't adequately anticipate the
>information people need to answer your questions), then very ready to
>deal abruptly with people who make the wrong assumptions about the
>context.
>
>

Owen,

You're right of course. Although there is a balance needed as the complete details would fill a small book...no one would read it to the very end.

Check the thread a little later in it's history, I think there has been additional pertinent information goven.

Enjoy.

T

2823. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 18:55:32 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <764dd$436122fa$97d56aa2$21648@ALLTEL.NET>
Source record: 68420

May I ask, what is with the almost fanitical adherence to Q?

<TRABEM> wrote in message news:3bm0m1dmvfl7l94m5vqnhtm3pae9kuls0p@4ax.com...
> On 26 Oct 2005 09:27:44 -0700, "K7ITM" <k7itm@aol.com> wrote:
>
> >I could perhaps scan the relevant pages of the references I
> >mentioned...
> >
>
> No, I can get them att he schools library I think. thanks for the
> offer.
>
> >How are you planning to couple your 2-ohm load to your loop without
> >doing really bad things to its Q?
>
> Is it better to convert the loop to a higher impedance just to feed it
> into the house? It appears that anything I do is going to knock the
> heck out of the antennas Q though.
>
> I have not decided whether to mount the receiver at the antenna yet,
> or whether to run the twisted line directly into the house from the
> antenna (since it's a short run). Most likely it will have a short run
> of cat 5 cable going from the antenna to a 1 to 1 toroid transformer
> located in the receiver. The only selectivity for the receiver will be
> the antenna itself. The receiver is very small, and uses very little
> power, so it's pretty feasible to mount the entire receiver at the
> antenna and run a balanced line feed of the audio into the house.
>
> > (And just what sort of detector do
> >you have that represents a 2 ohm load?)
>
> Is it better to convert the loop to a higher impedance just to feed it
> into the house?
>
> It's an analog switch input, modified by my neighbor that gave me one
> of them. The switch vendor says the switch series resistance should be
> around 3 ohms, but it measures around 2.5 ohms. Probably is a little
> lower than expected due to the integrating capacitors (.1 uF) which
> are hung on the output of each switch. The .1's go to ground.
>
> I measured it twice, once with a 1:1:1 isolation transformer and once
> with a 6:1:1 isolation transformer....The tester looses accuracy at
> low impedances, so we repeated the measurement with the generator
> feeding the high impedance side of the a transformer also. I got

> nearly the same reading after correcting for the transformers
> impedance step down value, since both readings agree pretty well with
> the switch vendors ratings, it's very likely that the receiver input
> impedance is around 2 ohms.
>
> > (And just what sort of detector do
> >you have that represents a 2 ohm load?)
> >
> >Cheers,
> >Tom
>

2824. Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 19:08:49 UTC
From: Detlef Conradin <skyline@despammed.com>
Message-ID: <436125c1$0$1163$5402220f@news.sunrise.ch>
Source record: 68421

Hi

To get started with nec2 I tried to simulate a simple dipole.
The graphical view of the pattern looks okay, however the gain seems
to be to high. To what are the DBs refered in the output file?
Or what do I have to change to get the gain in dBi ?

Here is my input file:

```
----------------------------------------
CM Test
CE
GW 1 20 0 0.005 0 0 7.5 0 0.01
GW 2 20 0 -0.005 0 0 -7.5 0 0.01
GW 3 1 0 -0.005 0 0 0.005 0 0.01
GE 0
EX 0 3 1 1 10. 0 0 0 0 0
FR 0 30 0 0 6. 1. 0 0 0 0
RP 0 37 72 1001 0. 0. 5. 5. 1000 1.
EN
----------------------------------------
```

Detlef

PS:
If I calculate the gain with the formula:

$$\text{Gain} = \frac{4 * \text{Pi} * r^2 * |E|^2}{P_{in} * 2 * 120 * \text{Pi}}$$

by using the E-Field magnitude values from nec2's output I get also
those very high values. (?)

2825. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 19:15:57 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <NH98f.8998$HW5.6517@trnddc04>
Source record: 68422

"Chris W" <1qazse4@cox.net> wrote in message
news:ku88f.1019$ZP1.519@dukeread11...
> Dale Parfitt wrote:
>
>> > PS I would like to build 2 of these one is for 2.4ghz wireless network
>>
>>>and one is 432 mhz amateur band EME and or satellite work. So the 2.4ghz
>>>version will likely never see more than 100 mW but could see as much as 1
>>>watt. The 432 mhz version could see as much as 1000 watts, but if I did
>>>that it would be to an array of 4 of them so I guess each one would only
>>>see 250 watts?
>>>
>>>--
>>>Chris W
>>>
>>>
>> EME on 432 is linearly polarized (although switching polarities to make
>> up for Faraday rotation can be advantageous) - you'll be throwing away a
>> huge 3dB, have higher sidelobes than a well designed Yagi (nullifying the
>> low sky temp advantage of deep space) and less gain per boom length than
>> a good Yagi- all in all, a dismal choice for EME.
>>
>>Dale W4OP
>>
>>
> The calculation in the ARRL Antenna book say that a 12 foot boom with a
> circumference of 1.33 wavelengths will give me a 19.9 dbi gain this should
> make up for the 3 db loss I think. I haven't seen a yagi that gives that
> much gain in with a 12 foot boom. The book also says that the side lobe
> problem can be significantly reduced by creating an array of 4 helical
> antennas. That should up the gain to 25.9 db. That's pretty good for EME
> isn't it? Take it to 16 and you get over 30 db gain. And the only need
> to be spaced at 1.5 wavelengths, that's only 3.4 feet.
>
> --
> Chris W

The closest optimized Yagi I found was a K1FO on a 14' boom- 17.9dBi which
compares quite well with your 19.9dBi on a 12' boom once we adjust for the
polarization loss making the helical 16.9dBi linear for the helix vs. 17.9dB
for the K1FO My experience with EME is at 23cM where we use dishes- but I
can tell you that 1dB is to kill for..
The circularity could be an advantage as it would be insensitive to Faraday.
Another advantage is that they are non critical to build- at least from a

gain standpoint. But I think the real issue will be weight and weight ditribution. Between the helical tubing, non conductive boom and the reflector screen a helix is going to be a clydesdale compared to a Yagi. Another problem might be the necessity to mount the array from behind the reflector- that's going to be quite a moment arm.

Bottom line is, 432 MHz EME is well explored- I am not aware of the use of helices for EME there- although, again I am not active on 432 EME. If they are not being use, there's probably a reason.

Dale W4OP

2826. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 19:16:15 UTC
From: richardharrison@webtv.net
Message-ID: <2204-4361277F-73@storefull-3257.bay.webtv.net>
Source record: 68423

Chris W. wrote:
"I am unclear which polarization to use if I want 2 helical antennas to talk to each other."

Unless you are bouncing the signals off a reflector, use the same polarization for both.

The axial-mode helical antenna is circulaly polarized and fires along its axis away from its ground screen. It can be either left handed or right handed depending on which way the helix twists. It responds to vertical, horizontal or diagonally polarized waves. It does not respond to waves with the opposite twist to its helix. Circular polarization of the opposite twist is rejected.

This is like machine bolt threads. A bolt can screw into a nut from either side if it has the same itch direction, but a left hand bolt won`t screw into a right hand nut. Circular polarization of the opposite rotation is rejected.

Refer to any edition of "Antennas" by Kraus for the details. Kraus invented the helical antenna after other experts said it could not work.

Best regards, Richard Harrison, KB5WZI

2827. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 19:42:05 UTC
From: K <K@spam.net>
Message-ID: <h4a8f.2487$Jo3.1943@tornado.socal.rr.com>
Source record: 68424

Hooey Boy, are you gonna get an earfull now! How dare you ask something
like that! You just evoked the wrath of flag, momma, and God! har..

J

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:764dd$436122fa$97d56aa2$21648@ALLTEL.NET...
> May I ask, what is with the almost fanitical adherence to Q?
>
> <TRABEM> wrote in message
> news:3bm0m1dmvfl7l94m5vqnhtm3pae9kuls0p@4ax.com...
>> On 26 Oct 2005 09:27:44 -0700, "K7ITM" <k7itm@aol.com> wrote:
>>
>> >I could perhaps scan the relevant pages of the references I
>> >mentioned...
>> >
>>
>> No, I can get them att he schools library I think. thanks for the
>> offer.
>>
>> >How are you planning to couple your 2-ohm load to your loop without
>> >doing really bad things to its Q?
>>
>> Is it better to convert the loop to a higher impedance just to feed it
>> into the house? It appears that anything I do is going to knock the
>> heck out of the antennas Q though.
>>
>> I have not decided whether to mount the receiver at the antenna yet,
>> or whether to run the twisted line directly into the house from the
>> antenna (since it's a short run). Most likely it will have a short run
>> of cat 5 cable going from the antenna to a 1 to 1 toroid transformer
>> located in the receiver. The only selectivity for the receiver will be
>> the antenna itself. The receiver is very small, and uses very little
>> power, so it's pretty feasible to mount the entire receiver at the
>> antenna and run a balanced line feed of the audio into the house.
>>
>> > (And just what sort of detector do
>> >you have that represents a 2 ohm load?)
>>
>> Is it better to convert the loop to a higher impedance just to feed it
>> into the house?
>>
>> It's an analog switch input, modified by my neighbor that gave me one
>> of them. The switch vendor says the switch series resistance should be
>> around 3 ohms, but it measures around 2.5 ohms. Probably is a little

>> lower than expected due to the integrating capacitors (.1 uF) which
>> are hung on the output of each switch. The .1's go to ground.
>>
>> I measured it twice, once with a 1:1:1 isolation transformer and once
>> with a 6:1:1 isolation transformer....The tester looses accuracy at
>> low impedances, so we repeated the measurement with the generator
>> feeding the high impedance side of the a transformer also. I got
>> nearly the same reading after correcting for the transformers
>> impedance step down value, since both readings agree pretty well with
>> the switch vendors ratings, it's very likely that the receiver input
>> impedance is around 2 ohms.
>>
>> > (And just what sort of detector do
>> >you have that represents a 2 ohm load?)
>> >
>> >Cheers,
>> >Tom
>>
>
>

2828. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 20:05:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bh42m11rauefq32v95mb25nqafke1okf5i@4ax.com>
Source record: 68425

On Thu, 27 Oct 2005 12:23:46 -0400, TRABEM <> wrote:
>I'm not sure what the 'abysmal match to the antenna whose Q will be
>buried in potter's field' statement is about. With my antenna being in
>the 2 ohm impedance range, and the receiver being at 10 ohms (I'll use
>your figure), how can the match be abysmal?

Even allowing for the values you offer (they are wrong) you have a 5:1
mismatch. Your actual mismatch is Q times that.

>Granted, it's not anywhere
>near ideal. Have you assumed I was using a parallel tuned loop?

Tom has already carried the water describing what your antenna Z looks
like. It is orders of magnitude greater by virtue of unloaded Q. You
want to aspire to make your receiver match that as closely as possible
- this design does not. What you have is a heavy, heavy load that all
but wipes out the advantage of Q.

>Since power transfer is the goal, and the antenna has a lot of ability
>to reject out of band signals,

Not any more.

>it was my hope to use the antenna
>itself as the only (purposely) tuned circuit in the system. Wouldn't
>converting the antenna impedance to a more traditional 50 ohms with a
>toroid, and then having a second toroid to convert it back down to 10
>ohms also be destructive to the antenna Q and lossy?

2 Ohms, 10 Ohms, 50 Ohms are all still very trivial in comparison to
what the antenna has to offer. At the danger of introducing an
analogy, you have a 1.2 liter high performance race car which needs to
turn 14K RPM for 300 HP and you've put it to hauling a 40 foot fifth
wheel trailer. You are not even going to pull that load a foot before
you burn out the clutch.

>Although
>ideally, each switch should have it's own 1 ohm variable resistor for
>absolute best results...the purpose being to swamp out the dynamic
>switch series resistance differences.

You are arguing precision at the wrong end of the scale. Any
additional resistors are burning signal up and any appeal to
technicalities has been lifted from other applications that don't even
come close to this situation. I've been designing with these switches
for 25 years, and for very small signals.

>Note the receiver has no rf amp, it isn't needed. The gain is provided
>by some low noise op amps, and no rf stage is needed. The QRP2001
>receiver is designed for 100 KHz to 30 Mhz, but it is only rated down
>to 1.8 MHz. However, it's worst case sensitivity is .4uV for 10 db
>sinad.

This is comparing apples and donuts when the menu only offers steak.

First, all these glowing accounts of excellent performance come from
European sources where VLF is far more common, and those services pour
up to a MW into the air. Your fillings would work just as well.
Second, your glowing reports are about HF characteristics with
conventionally sized antennas. When you attempt to extrapolate this
to VLF, you are not carrying the decimal point of inefficiency to the
left as you drop down in frequency.

>Again, I think you've assumed it would be fed with a parallel loop
>resonant antenna.

You haven't described anything else, and no appeal to series resonant
is going to resolve Q going down the toilet. Loss is loss no matter
what topology. This was the point of discussion with ESR.

>And, no active components are needed for outstanding performance.

And yet you were the first to offer some builders have experienced
miserable results. You are about to join that pouting crew. On the
other hand, as I've suggested, you may still get WWVB with all these
problems - even wrist watches do. In that eventuality you have no
real basis of comparison and your only feeling would naturally be one
of wonder and awe. An aw shucks glow in the eyes does not translate
to a marvelous DX receiver.

>Again, I think you're trying to match a 2 K parallel tuned loop to the
>relatively low impedance of the receiver input. I noticed you said
>'follower'. Which, I think means unity gain, but is used for impedance
>matching.

Exactly.

>Any active component before the audio op amp is STRONGLY
>DISCOURAGED in this type of receiver. This includes back to back
>diodes as the receiver switches can handle 4v p-p. It also includes
>varicap tuning diodes. A front end rf amp should be avoided at all
>costs, it can only degrade the performance of this type of receiver.

This only applies in the face of strong signals being applied to such
an amp. Yes, you have guaranteed that with the abysmal match and all
these Cassandra forecasts come true.

>The receiver has incredible immunity to strong out of band signals,

This comes only from Q. This is a baseband receiver which means it is
open to all frequencies. Thus the necessity of a hi Q passive front
end (you killed it). What you call immunity is a product of dynamic

range capability and what circuits that follow this detector.

>The nature of the beast is that the
>quadrature detector cancels them out by (effectively) NOT reinforcing
>them.

No, you've gotten very poor instruction on the qualities of this type of detector. I was designing them 35 years ago and they are used in a bajillion TVs. Absolutely every one of them has front end electronics.

The detector neither cancels nor reinforces, it provides a phased output. The detector also has its points of failure too, but when all the necessary pre-conditions are met, it has many more features and immunities. You have described none of these.

>What you don't see on the schematic is the
>incredible sound of the receiver audio which is clean and crisp...it's
>not quantifiable by bench measurements however.

This is simply absurd. The very qualities you describe are measured every day and are the purpose of this style of detection's use. However, as you describe them, you still give the appearance of not knowing what to do with the "I" and "Q" channels. Therein lies the difference.

I would also offer, that among all your attached references, much less your own discussion, absolutely nothing is said about the "I" and "Q" channels. These outputs (why two?) are pushed into a black box, and one AM signal emerges which begins to argue: what is being detected? and where? I especially like these ace buster questions because it is overwhelmingly obvious that no one actually knows what the "I" and "Q" channels are for. They can be put to work without any more fuss than amplifying them, but instead they are pushed into equations, software and black boxes.

What is worse, I have yet to see anyone actually offer what forms of modulation can be detected - there is a serious gap of research in all these articles you've offered. For so many that have come here to breathlessly announce the miracle of the Tayloe mixer, to a person, they don't even know a fourth of what could be done.

>I've put some links to web references of this technology at the end of
>the message.

All very nice commercials, and one offers the nuts and bolts of the practical detector that must have missed your attention as it contradicts with:
"First, the RF input signal is bandpass filtered and applied to the two parallel mixer channels."

In fact, and as I've experienced through 30+ years of their design, there are filters all around.

Your having snubbed the antenna Q violates this first premise. Then we look at the "I" and "Q" channels, the only way to achieve what you describe as the marvelous characteristic of
>The receiver has incredible immunity to strong out of band signals is achieved by conventional filtering just like in the superhet. In fact one of your references employs a nine pole Butterworth. Another design has cascading filters out to eleven poles. This being a baseband converter has simply shoved the filtering into the AF band. Out of band performance only applies for those who cannot hear dog-whistles. In short, a technological shell game. Effective, certainly, but not unheard of - direct conversion was the original form of receiver.

Going further, the QEX article accurately describing the Tayloe detector describes the purpose of the capacitors in the circuit you sent me. Problem there is that your lowered RC constants are running out at 1ï¿½S for samples being taken at a much slower rate. Result is a serious droop is occurring.

>schematic I sent you by email.

Didn't get it. My Kill filters barely let your last schematic through.

73's
Richard Clark, KB7QHC

2829. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 20:12:30 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Owa8f.26441$i31.3134@trnddc08>
Source record: 68426

Hi Trabem

I've been trying to follow this thread because I like to play with tuned
loop antennas for broadcast band reception.
I missed the part about how much this 20 meters of #2 copper cable with
its support weighs. Your project sounds Serious. That antenna must weigh
close to 500 pounds
The loop antennas I've been building are large diameter coils of smaller
wire. I recognize that the type antenna I build arent acceptable for your
consideration. But, I do have some experience with using a low freq loop
in the city. If you are located near man made noise, it is very likely
that resonating the loop doesnt result in highest Signal/Noise ratio.
Perhaps you already have experience with Low Freq loops and can tell me
about your experiences. I am interested in learning.

Jerry

<TRABEM> wrote in message news:b5o1m1tnf9ouuhb0o5gqb0b8c9fh0c1gm0@4ax.com...
>
>>
>>>You should have the schematic in your mailbox by the time you get this
>>>message.
>>
>>If I am to translate the annotation correctly (and it is obviously in
>>error - R10 and R12 are not the pair being changed), then Input Z
>>somewhere in your frequencies of interest (you've named several) runs
>>around 10 Ohms with the switch itself attenuating your signal by 6 to
>>10dB. This, of course, says nothing of the abysmal match to the
>>antenna whose Q will be buried in potter's field.
>
> Hi Richard,
>
> You are correct, the resistors being changed at R11 and R12, sorry for
> the error. To correct the statement on the schematic, consider R11 and
> R12 as being changed from 10 ohms to .2 ohms.
>
> I'm not sure what the 'abysmal match to the antenna whose Q will be
> buried in potter's field' statement is about. With my antenna being in
> the 2 ohm impedance range, and the receiver being at 10 ohms (I'll use
> your figure), how can the match be abysmal? Granted, it's not anywhere
> near ideal. Have you assumed I was using a parallel tuned loop?
>
> Since power transfer is the goal, and the antenna has a lot of ability
> to reject out of band signals, it was my hope to use the antenna
> itself as the only (purposely) tuned circuit in the system. Wouldn't

> converting the antenna impedance to a more traditional 50 ohms with a
> toroid, and then having a second toroid to convert it back down to 10
> ohms also be destructive to the antenna Q and lossy?
>
>>
>>I gather that the switch operates as a baseband quadrature/synchronous
>>detector. It looks suspiciously like it will either short the input,
>>or leave one half dangling, but I trust you got the schematic from a
>>good source. I won't bother to try to verify the logic.
>>
>
> The logic is good, trust me, the receiver as shown outperforms many
> much more expensive ones on the market currently. It is based on the
> receiver shown at:
>
> http://www.qrp2001.freeserve.co.uk/qrp2001rf.gif
>
> It's design has been around for awhile, the first prototype was built
> in 2000. While I disagree with the use of resistive matching, it
> should be ok at VLF as the signals are usually quite large there to
> begin with. For a simple receiver, it is the best answer. Although
> ideally, each switch should have it's own 1 ohm variable resistor for
> absolute best results...the purpose being to swamp out the dynamic
> switch series resistance differences.
>
> Note the receiver has no rf amp, it isn't needed. The gain is provided
> by some low noise op amps, and no rf stage is needed. The QRP2001
> receiver is designed for 100 KHz to 30 Mhz, but it is only rated down
> to 1.8 MHz. However, it's worst case sensitivity is .4uV for 10 db
> sinad.
>
>
>>The roll-off frequency of the amplifier(s) is at the bottom of the AM
>>band, it would do better to track the oscillator frequency about one
>>seventh below so that AM signals are depressed below WWVB instead of
>>competing with it. Increase the caps from 470pF to 3300pF.
>>
>
> Agreed. Thanks.
>
> The 470 pF value was chosen for a wide band spectral display from DC
> to 96 KHz, which is about the best that generic PC sound cards can do
> today. If the panoramic view of the surrounding spectrum wasn't
> necessary, these caps would be much larger in value. As it sits
> however, it's nice to have a panoramic view of the surrounding
> spectrum, so the caps might not be changed.
>
> For my purposes, they don't need to be nearly as small as they are,
> but the original design was for HF...where a wiew of the surrounding
> spectrum was handy.

>
>>The reason why you want low front end Input Z is to satisfy the
>>amplifier topology (the gain will be roughly half what it is probably
>>specified at). This could have been done better in half a dozen
>>different ways with the same active parts.
>>
>>The problem here is some bozo marked the input "antenna" and removed
>>the necessary follower amplifier that would have been fed by the
>>antenna which would in turn feed this circuit through the transformer.
>>This sucker, as drawn, is going to be deaf, deaf, DEAF. If you hear
>>WWVB it will be by virtue of their strong power, not by any quality of
>>design here.
>>
>
> WRONG, but I think I understand your error. BTW, the 'bozo' was me:>:.
>
> Again, I think you've assumed it would be fed with a parallel loop
> resonant antenna.
>
> And, no active components are needed for outstanding performance.
>
> It is possible that the antenna circuit might need to be tuned with
> passive components, but that possibility needs further evaluation.
>
>>To unplug this design's ears and make up for the massive goof, add a
>>FET follower. Load the FET drain with a 2.2 Ohm resistor and make
>>sure you couple the signal through a large cap feeding the
>>transformer. Also, bias the FET on with a hi Z divider so you don't
>>wipe out the Q of the antenna. I will bet that even the proposed "I"
>>and "Q" paths are mislabled or missapplied.
>>
>
> OK, this is a fair request...from someone without experience in this
> type of receiver. However, in reality, an rf stage of any sort is
> unnecessary.
>
> Again, I think you're trying to match a 2 K parallel tuned loop to the
> relatively low impedance of the receiver input. I noticed you said
> 'follower'. Which, I think means unity gain, but is used for impedance
> matching.
>
> Any active component before the audio op amp is STRONGLY
> DISCOURAGED in this type of receiver. This includes back to back
> diodes as the receiver switches can handle 4v p-p. It also includes
> varicap tuning diodes. A front end rf amp should be avoided at all
> costs, it can only degrade the performance of this type of receiver.
>
> The receiver has incredible immunity to strong out of band signals,
> much more than any superhet. The nature of the beast is that the
> quadrature detector cancels them out by (effectively) NOT reinforcing

> them. The desired signal is however very strongly reinforced. Since we
> don't need an rf amp to get good sensitivity, any active component
> before the load capacitors is strongly discouraged.
>
> Even at 60 MHz, the performance is only slightly degraded, and that is
> due to the inability of the analog switch to enable and disable fast
> enough to allow reception there. There is a commercial application
> using this technology that implements receive and transmit with analog
> switch method and it does not have an RF amp.
>
> Of course, there is a trade off. In order to obtain immunity from
> strong adjacent out of band signals, we give up the ability to reject
> harmonics. Harmonics are only attenuated 6 db....so a tuned input must
> be used if the antenna cannot adequately prevent harmonics of the
> receiver frequency from entering the receiver.
>
> In theory, a minimum of 6db enhancement is available because there is
> no mixer, so there is no conversion loss!
>
> The susceptibility to harmonics is a small trade off. Remember, a
> receiver of this type is wideband, needs no conventional mixers, no
> detector diode, no transformers, no crystal filters, no IF amps, has
> no conversion loss and no major non-linear components...thus offers
> outstanding performance with the cost to build very much reduced
> (relative to a superhet). What you don't see on the schematic is the
> incredible sound of the receiver audio which is clean and crisp...it's
> not quantifiable by bench measurements however.
>
> I've put some links to web references of this technology at the end of
> the message.
>
> In the meantime, I'd appreciate comments regarding the issue of how
> well the loop will feed the antenna input for the modified receiver
> schematic I sent you by email.
>
> Regards,
>
> T
>
> PS:I hope Dave is still with us. Although he probably left when he
> assumed I measured the input impedance with an ohm meter:>: Dave, are
> you able to concede that the input impedance of the receiver might be
> around 2 (or 10) ohms now?
>
>
> --
>
> If you want read up on this type of receiver, I can recommend the
> following:
>

>
> http://www.qrp2001.freeserve.co.uk/contact.htm
>
> http://www.flex-radio.com/
>
> Flex-Radio makes the quadrature based SDR-1000 transceiver. For a very
> detailed explanation (without heavy math) of the detector theory,
> check out the QEX article, part 1 at:
>
> http://www.flex-radio.com/articles_files/SDRFMP1.pdf
>
> And, there are independent product reviews for the SDR-1000 at:
>
> http://www.flex-radio.com/articles_files/index.htm
>
> Dan Tayloes NC2030 high performance signle band transceiver is
> detailed at:
>
> http://www.qslnet.de/member/df7tv/nc2030_pres_2004_10.pdf
>
> The complete schematics for the NC2030 are at:
>
> http://www.norcalqrp.org/nc2030.htm
>
> Note that the NC2030 uses the same type of detector, but does not use
> a sound card and does not rely on a computer at all. It is a stand
> alone transceiver.
>
> There is also a 9Y4 who home brewed a complete transceiver, details
> at:
>
> http://9y4ar.tripod.com/tayloe_mixer.htm
>
> Although slightly off topic, a low power ssb/cw exciter can be made
> just as easily as the receiver using the same analog switch
> technology. The process is simply the reverse process of the detector.
> To see how simple a high quality transmitter is, try:
>
> http://www.w1tag.com/Phasing.htm
>
>
> .
>

2830. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 20:25:49 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <djrd6b$4t7$1@news.service.uci.edu>
Source record: 68427

Richard Clark wrote:

> This is comparing apples and donuts when the menu only offers steak.

What kinds of steak are on the menu? I haven't had lunch yet and I could go for a nice Chateaubriand.

By the way, some kinds of donuts have apples in them. Apple fritters I think they call them. In a way they're both apple AND donut - since you brought it up.

ac6xg

2831. Re: Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 21:51:42 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <OZb8f.65020$ir4.30653@edtnps90>
Source record: 68428

"Detlef Conradin" <skyline@despammed.com> wrote in message
news:436125c1$0$1163$5402220f@news.sunrise.ch...
> Hi
>
> To get started with nec2 I tried to simulate a simple dipole.
> The graphical view of the pattern looks okay, however the gain seems
> to be to high. To what are the DBs refered in the output file?
> Or what do I have to change to get the gain in dBi ?
>
> Here is my input file:
> --
> CM Test
> CE
> GW 1 20 0 0.005 0 0 7.5 0 0.01
> GW 2 20 0 -0.005 0 0 -7.5 0 0.01
> GW 3 1 0 -0.005 0 0 0.005 0 0.01
> GE 0
> EX 0 3 1 1 10. 0 0 0 0 0
> FR 0 30 0 0 6. 1. 0 0 0 0
> RP 0 37 72 1001 0. 0. 5. 5. 1000 1.
> EN
> --
>
> Detlef
>
> PS:
> If I calculate the gain with the formula:
>
> 4 * Pi * r^2 * |E|^2
> Gain = ----------------------
> P_in * 2 * 120 * Pi
>
> by using the E-Field magnitude values from nec2's output I get also
> those very high values. (?)
>

Hi, you have a segment length violation in TAG 3; it is very short, being only 5mm. Also short when compared to the segment length in TAGs 1 and 2 at 37.5 cm. It is a good idea to maintain equal segment lengths in the entire model, with minimum lengths not exceeding 0.001 wavelengths on any frequency. I have modified your code as shown below. There is nothing wrong with breaking the wire up into three tags, but they should all run the same way. Your end TAGs are running in opposite directions, which will cause current discontinuities in plots, and NEC output file data.

There was something weird about your RP card also, but have not yet delved into what is wrong. I have not checked, but your computation of gain with the E-field should now be correct.

Cebik's book on NEC modelling, at www.nittany-scientific.com, for $50 is well worth the money.

Regards,

Frank

```
CM Test
CE
GW 1 21 0 -7.5 0 0 7.5 0 0.01
GS 0 0 1.000000
GE 0
GN -1
EX 0 1 11 00 10. 0 0 0
FR 0 30 0 0 6. 1. 0 0 0 0
RP 0 181 1 0000 -90 0 1.00000 1.00000 1000 1.
EN
```

2832. Re: Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 22:43:55 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <LKc8f.65030$ir4.12054@edtnps90>
Source record: 68429

"Detlef Conradin" <skyline@despammed.com> wrote in message
news:436125c1$0$1163$5402220f@news.sunrise.ch...
> Hi
>
> To get started with nec2 I tried to simulate a simple dipole.
> The graphical view of the pattern looks okay, however the gain seems
> to be to high. To what are the DBs refered in the output file?
> Or what do I have to change to get the gain in dBi ?
>
> Here is my input file:
> --
> CM Test
> CE
> GW 1 20 0 0.005 0 0 7.5 0 0.01
> GW 2 20 0 -0.005 0 0 -7.5 0 0.01
> GW 3 1 0 -0.005 0 0 0.005 0 0.01
> GE 0
> EX 0 3 1 1 10. 0 0 0 0 0
> FR 0 30 0 0 6. 1. 0 0 0 0
> RP 0 37 72 1001 0. 0. 5. 5. 1000 1.
> EN
> --
>
> Detlef
>
> PS:
> If I calculate the gain with the formula:
>
> 4 * Pi * r^2 * |E|^2
> Gain = ----------------------
> P_in * 2 * 120 * Pi
>
> by using the E-Field magnitude values from nec2's output I get also
> those very high values. (?)
>

PS, also confused by your formula. Which Value of E are you using? Are you
trying to calculate the "Total radiated power" (TRP)? If so you need to
integrate the power density over a spherical region. The calculation is
greatly simplified if you take advantage of any natural symetry in the
radiation pattern -- i.e. integrate from axis end to axis end, then multiply
by 2*PI -- as in elementary calculus, you are using a single integral for a
"Solids of revolution" method, instead of a double (Surface integral).

If you are trying to caluculate the gain in a given direction you need to take 20*log(E/Ei). Where E is the NEC calculated E field in the desired direction, and Ei is the computed E field from an ideal isotropic source with the same input power as the test antenna.

As for your RP card, I notice that you are attempting to vary both "Theta" and "Phi". I usually keep one fixed and vary the other, but to be honest I am not sure if what you are doing is incorrect, although I notice that the "Phi" pattern is only computed for one frequency. The only other difference is that I normally do not use gain averaging. Also using 1 degree increments does not seem to slow things down very much. With your RP card I was also getting some weird pattern discontinuities.

Regards,

Frank

2833. Re: Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-27 22:48:41 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <dPc8f.65117$ir4.55627@edtnps90>
Source record: 68430

.....entire model, with minimum lengths not exceeding 0.001 wavelengths
on any
> frequency. I have ....

Oops, of course, I meant: "Not less than 0.001 wavelengths".

Frank

2834. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 00:52:45 UTC
From: TRABEM <>
Message-ID: <pit2m1h607j9l7v9is74njmr753ku4i8bv@4ax.com>
Source record: 68431

OK Richard,

I like to think I'm not stupid, but reading your last message.......

That being said....

I just went through and reread every single word in this entire thread including all the replies and I have the following questions:

I have a series resonant loop with moderately large conductor wire and reasonably high Q capacitors. It's tuned to resonate at 60 KHz.

A series tuned circuit is a low impedance circuit, so 60 KHz signals from the antenna are passed to the receiver and other frequency signals are attenuated as the X(C) or X(L) on either side of the resonance frequency attenuates them. Using Reg's rjeloop3 we get 25.4 uH for the loop inductance, and it resonates at 60 KHz with 286,700 pF. It also gives us the X(L), which is 9 ohms and (presumably) the X(C) is -9 ohms. It estimates Q at 221. The 2 reactances are equal and opposite, they cancel each other out. This leaving us with the effective R(ac) for the loop inductance and the effective R(ac) of the resonating C. The sum of these 2 resistances gives us the net impedance of the loop. I know that the ESR of the cap is in the milliohm range and the same for the wire, but I don't know the actual impedance of loop. For a parallel tuned loop, Reg's program gives me a value of 2K ohms. I don't really know what the value is for a series tuned loop such as I will have.

Why does this make my antenna look like 2 K ohms impedance? I was (admittedly guessing) that it looked more like 2 ohms. Maybe 2 ohms isn't right, but can the impedance of a series tuned loop made out of number 2 copper and low ESR caps be 2 K ohms??

My receiver measures around 2.5 ohms input impedance, verified by 2 different test methods...maybe that's not absolutely accurate. But, you said it should have looked like 10 ohms instead. I accepted your number however, let's say it's a 10 ohm impedance input from now on.

I believe that the antenna and receiver should be designed for maximum power transfer which means making the antenna and the receiver front end equal with regard to impedance. Is this correct? Is maximum power transfer indeed my goal?

Regarding the integrating caps C value:

Yes, I understand I've lowered the effective series resistance (by modifying the input circuit) that charges and discharges the integrating caps. And, yes, I know different values of caps will be needed. And, NO, I haven't addressed that issue yet. But, thank you for pointing it out to me. I had thought these caps should be greater than 1 uF and possibly larger. At this time, it's not a priority as Winter is coming here and I have to get the antenna installed and tuned. Fine tuning the receiver will come in the Winter when VHF quiets down and the snow is 10 feet deep in the woods. For now, the priority is making sure the antenna is all set before the snow flies. Thank you again for reminding me that the integrating caps need to be a different value. Since I might have to have a different input circuit, or even an tuned circuit in the front end, I don't want to address this issue now.

So, how do I fix it??

I'd be perfectly happy redoing the input circuit for 50 ohms input impedance and putting some selectivity back into the front end if that's what it takes to have the receiver function. My idea of matching a 2 ohm impedance antenna to a 2 ohm impedance receiver without any tuning at all (other than the loop antenna) was just that, an 'idea'. If it doesn't work, then it doesn't work. But, on the surface, it seems reasonable. It appears the major problem here is that you think my antenna impedance is 2K and I think it's 2 ohms (or less). So further discussion is a waste of time and bandwidth (until this issue is resolved).

My primary question is about the impedance of a loop antenna made out of 20 meters of #2 copper in series with each other using low esr caps and tuned to resonance at 60 KHz.

>>schematic I sent you by email.
>
>Didn't get it. My Kill filters barely let your last schematic
>through.
>

Not sure what I did to deserve an honored position in your kill file. I confess to being stubborn and cranky, but I don't think I was disrespectful or made inappropriate comments. I won't email you anymore schematics.

Obviously, if I had all the answers, I wouldn't need to ask here. If you could shed some light on the series tuned antenna impedance and Q, it would help me to make forward progress and I'd appreciate it. Where

have I gone wrong?

TNX,

T

2835. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 01:37:43 UTC
From: TRABEM <>
Message-ID: <t8u2m191sgk4okkf2j7n432s9601qsdtcs@4ax.com>
Source record: 68432

On 24 Oct 2005 16:57:07 -0700, "K7ITM" <k7itm@aol.com> wrote:

>I'm puzzled. My copy of rjeloop3 suggests the Q will be about 200 at
>60kHz with a 9mm wire diameter, and you'll see about 2kohms when it's
>resonated. Are you not taking the output across the ends of the loop
>(across the capacitor)?

No, you are describing a parallel tuned loop, aren't you Tom,

That is NOT what I'm trying to build.

I am planning a series tuned loop, which is C in series with L and the output is taken across the unused loop terminal and the unused cap terminal.

I think it should be called a series tuned loop, shouldn't it?

I know I suggested a whole bunch of times that your 2K loop impedance sounded like a parallel tuned loop value and you keep insisting that my series tuned loop will have an impedance of 2K ohms.

You also told me that "Tom has already carried the water describing what your antenna Z looks like". I suggested that perhaps Tom and you thought I was referring to a parallel tuned loop and said several times that it was a series tuned loop.

Then you ranted on and on or maybe I ranted........

Did Tom and you not hear me when I said it was a series tuned loop or did I not make it plain enough.

Isn't the impedance of a series tuned circuit LOW at resonance??? It was when I went to school.

If I've err'd, please let me know how.

Thank you.

T

PS:

And, yes......I expect the Q to be cut in half if I attach a receiver and a loop with identical impedances to each other. I call it loaded Q and it's a necessary evil if one doesn't want to resort to electronic (active component) impedance matching.

Put another way, if my receiver had a 50 ohm input impedance and my loop had a 50 ohm output impedance (with a Q of 100, unloaded), I'd

expect to have a (net) Q of 50 after the receiver was connected to the antenna.

Reg's software tells me I have a Q of around 221. I assume that's net Q for the loop itself (unloaded). If my receiver is made to have the same Q as the loop, then I expect the loaded Q to be around 110 after they are connected together.

I know you mentioned an active buffer amp to transform impedances. No doubt this would help to keep the loaded Q up, but I'd like to avoid any active antenna preamp/rf stage if possible......as previously discussed.

>And with a skin depth of about 0.01" at 60kHz
>in copper, certainly 3" diameter soft copper pipe would have the lower
>resistance. You might have some trouble finding soft copper pipe,
>though. But even hard copper pipe should have a low RF resistance.
>"Reference Data for Radio Engineers" (or "Reference Data for Engineers"
>in newer incarnations) has lots of good info for figuring out things
>like RF resistance of copper wire. I assume your welding cable doesn't
>have strands that are insulated from each other like Litz wire.
>

I thought about litz, and it probably would have been cheaper than the copper welding cable I bought. But it's fragile in the outdoors and breaks easy when the wind blows it especially in long spans like I am going to have. Rather than encase it in some sort of protected sheath, I decided to use the welding cable.

>Consider that Q is energy stored divided by energy dissipated per
>radian (1/2pi of a cycle). Then the net Q will be 1/(1/Q(inductor) +
>1/Q(capacitor)). So if the cap and inductor have the same Q, the net Q
>will be half that. And if you put a resistive load across the
>coil+cap, that will dissipate power and lower the Q further.
>

I think I understand that now and understood it before you explained it. But, thank you.

2836. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 01:48:40 UTC
From: TRABEM <>
Message-ID: <4803m15362lpin310rr7a3kvs0gahn68al@4ax.com>
Source record: 68433

Thanks Reg,

I'm trying.

But, I wanted to make sure you know that I didn't mean any disrespect when I commented that you should 'assume nothing'. It was short, but not in any way to snub you.

I write this only after a comprehensive review of the entire thread. IN the process oif that review I realized another member thought it was a hostile comment...so it occurrent to me that you might have thought so to.

And, in fact, it was not my intention to convey that message when I wrote it.

If any offense was taken, please accept my apology.

I don't know if you've been following this thread or whether you have ducked and are laying low.

I'm having a great deal of difficulty understanding how a series tuned loop can have an impedance of 2K ohms, but Richard has reiterated this over and over and in fact seemed to take offense when I suggested that the loop impedance should be much lower.

So, I'm not sure who is right:>:

Like I said, I'm tryin'

Regards,

T

2837. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 01:48:54 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <v503m152dnbdagl1uap0ketmo05vu2ofh4@4ax.com>
Source record: 68434

On Thu, 27 Oct 2005 20:52:45 -0400, TRABEM <> wrote:

>That being said....

...

>I have a series resonant loop with moderately large conductor wire and
>reasonably high Q capacitors. It's tuned to resonate at 60 KHz.

Is that to mean the loop circuit consists of an inductor (including its radiation resistance and copper losses) of about j10 ohms and a capacitor (including its losses) of about -j10 ohms and a load resistance (being the 2 to 10 ohms receiver input Z) in series (ignoring transmission line for the moment)?

You quote a Q figure and talk about expected bandwidth earlier in the thread. Wary of making any unwarranted assumptions, is it safe to assume that you know that it is the loaded Q that will determine the bandwidth of the circuit in operation?

If you insert the rx input Z in series in the loop as described above, you don't need a calculator to see that the loaded Q cannot be 200+, and you might be lucky if it is better than 5 if the numbers you have quoted are correct. This circuit is not likely to give you much front end selectivity, is it?

Perhaps you need to consult a textbook to review your understanding of unloaded Q, loaded Q, efficiency, and bandwidth, and where to apply which Q value.

Owen
--

2838. Supply 3 Pole Gas Tube Arresters(Gas Discharge Tubes)3-Electrode Cdramic Surge Arrester,Ceramic Surge Arresters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 02:01:25 UTC
From: samul888@vip.163.com
Message-ID: <1130464885.459449.171250@g44g2000cwa.googlegroups.com>
Source record: 68435

Supply 3 Pole Gas Tube Arresters(Gas Discharge Tubes)3-Electrode Cdramic Surge Arrester,Ceramic Surge Arresters

We are a professional manufacturer from China mainly produce 3 Pole Gas Tube Arresters(Gas Discharge Tubes)3-Electrode Cdramic Surge Arrester,Ceramic Surge Arresters

See More Details at the Link:
http://www.cheerwe-telecom.com
http://indonetwork.info/cheerwetelecom

My E-mail:ebaby88888@yahoo.com.cn
Tel:+86-135-86539769

2839. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 02:02:42 UTC
From: TRABEM <>
Message-ID: <d113m196ib2c4khminc246f8hr0jkitrg6@4ax.com>
Source record: 68436

On Thu, 27 Oct 2005 14:55:32 -0400, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>May I ask, what is with the almost fanitical adherence to Q?

Sure, it's a fair question.

I have a simple receiver with a low impedance input that is few with a
toroid transformer and a tuned circuit to match the impedances and to
keep out of band signals out.

I want to convert the receiver from HF to VLF (60 KHz) and to use a
series tuned loop of high Q as an antenna. In order to simplify the
receiver input, I have mentioned as an option to eliminate the 50 ohm
matching transformer and the tuned circuit in the front end of the
receiver....and to feed it directly with my low impedance loop. In
this way, the loops high Q would serve as the only means of preventing
out of band signals from getting into the receiver.

In order to make sure that actually happens, I suggested making the
loop Q as high as possible.

Hence my 'almost fanatical adherence to Q'

Not sure if it will work, but wanted to run it past the group.

Regards,

T

2840. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 02:26:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n6u2m1t02ll9u67p009ofpeu75ipmr5l5i@4ax.com>
Source record: 68437

On Thu, 27 Oct 2005 20:52:45 -0400, TRABEM <> wrote:

>I have a series resonant loop with moderately large conductor wire and
>reasonably high Q capacitors. It's tuned to resonate at 60 KHz.

A series resonant loop. First, this is a contradiction in terms and
as your interpretations hinge upon this reading, it bears examination.

>A series tuned circuit is a low impedance circuit, so 60 KHz signals
>from the antenna are passed to the receiver

To be in series, you have to describe the source and its common, you
simply describe the loop. With this, you neglect the coupling between
the actual source of power, a remote transmitter, and the antenna's
Radiation Resistance. This value appears no where in your analysis
and yet it is largely responsible for the atrocious efficiency of this
breed of antenna.

I've thrown together a quick model of your 5M on a side loop using
(and being generous) #1 wire. The bottom of the loop is 10M above
ground. In terms of performance relative to an isotropic antenna it
is down 60dB. It displays an impedance of:
Impedance = 0.05849 + J 10.37 ohms
An addition of a 0.2555ï¿½F capacitor draws this down to:
Impedance = 0.05851 + J 0.006073 ohms

Please note that the capacitor is perfect, no ESR whatever. In a
system with Zc = 0.0585, this antenna presents a 1.11 SWR. The half
power points of its resonance are only 600 Hz apart. Hence a Q of
100.

This is without any extraneous detector circuitry whatever. We will
see where its addition leads.

By simply inserting your 2 Ohms (I know full well where my 10 Ohms
will take us) - in series - (again, your thesis) and re-assigning the
system Zc to that same 2 Ohms, this antenna presents a 1.077 SWR.

Sounds hunky-dory, right? Except when you look at the Q which has
plunged to 2.9 and the antenna loss now compares to -75dB compared to
an isotropic.

Your receiver, in series with the loop, has just killed 15dB of gain
and wiped out the Q by 95%. Not bad for a day's work.

I will forgo the remainder of your questions to allow you to digest
the material above. You can validate these readings by using EZNEC
which in its free version is perfectly suitable to this question.

>-----------------------------------
>
>>>schematic I sent you by email.
>>
>>Didn't get it. My Kill filters barely let your last schematic
>>through.
>>
>
>Not sure what I did to deserve an honored position in your kill file.

This is not the kill file of unsophisticates simply ignoring by posting name. Agent has much more flexibility to read headers and judge what is spam. Works great and eliminates that source by - well I cannot guess the amount simply because I don't count the kills, and none survive the trash can except those at a lower level of sifting.

I'm getting a lot of correspondence right now helping designers out. About half a dozen posts a day. Seems to be peak season and their mail lands in my inbox without incident.

>I confess to being stubborn and cranky, but I don't think I was
>disrespectful or made inappropriate comments. I won't email you
>anymore schematics.

I simply pointed out I've only receive one of your emails, and the kill files put it in the trashcan - that is one step above absolutely erasing it. The presumption from the several kill-rules is that your headers appear to be spoofed. Now, tell me that you aren't doing something out of the ordinary like passing mail through an open relay. ;-)

73's
Richard Clark, KB7QHC

2841. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 02:38:47 UTC
From: TRABEM <>
Message-ID: <f623m1hre6phdsbpil3ngd3bg2dvqjvuio@4ax.com>
Source record: 68438

Hi Owen,

Hi Owen,

I am using large copper cable and relatively low loss capacitors. I expect the 9 ohms of inductive reactance to cancel out the -9 ohms of capacitive reactance leaving only the sum of the AC (or RF) resistance of the copper and the ac resistance of caps to give me my net impedance. Am I correct up to this point??

I'm trying to take this step by step so I can understand where I've gone wrong.....clearly I must have made an error somewhere.

I don't know what the actual ac resistance of the caps is, but I do know the ac resistance of 20 meters of #2/0 copper welding cable is pretty damn low.

Yes, the loop is series tuned, so the output is taken on the unconnected capacitor terminal and the unconnected wire end.

Rjeloop3 gives estimates my Q at 221 even though it thinks I'm building a parallel tuned loop. But, I think Q is Q, and the Q of both types of loops is the same provided the same materials have been used in both loops.

I am (for now) not considering the effects of hooking it to a receiver and/or the transmission line. I confess I have not tried to quantify the actual values of the ac resistance of the copper and have only rough estimates of what the esr of the caps is. I'd be pretty surprised if the dc resistance of the cable is much more than .1 ohms though, so the ac resistance should be a little higher at 60 KHz.

Can you estimate what the unloaded Q of the loop is (in round numbers), and if so, can you agree that it might be around 221 (as Reg's software predicts)? Can you estimate what the impedance of the loop is (in round numbers)? Again, do not factor in the receiver input impedance as we aren't sure whether I'll keep it as is or match it's impedance with a preamp and/or toroidal transformer. For the moment, assume the receiver is mounted at the loop (which is a very real possibility since it's fairly small).

Thanks for jumping in.

T

2842. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 03:00:00 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <uc43m1hskbnpvbso6p7e2afoblnardofij@4ax.com>
Source record: 68439

On Thu, 27 Oct 2005 22:38:47 -0400, TRABEM <> wrote:

>Hi Owen,
>
>Hi Owen,
>
>I am using large copper cable and relatively low loss capacitors. I
>expect the 9 ohms of inductive reactance to cancel out the -9 ohms of
>capacitive reactance leaving only the sum of the AC (or RF) resistance
>of the copper and the ac resistance of caps to give me my net
>impedance. Am I correct up to this point??
>
>I'm trying to take this step by step so I can understand where I've
>gone wrong.....clearly I must have made an error somewhere.
>
>I don't know what the actual ac resistance of the caps is, but I do
>know the ac resistance of 20 meters of #2/0 copper welding cable is
>pretty damn low.
>
>Yes, the loop is series tuned, so the output is taken on the
>unconnected capacitor terminal and the unconnected wire end.
>
>Rjeloop3 gives estimates my Q at 221 even though it thinks I'm
>building a parallel tuned loop. But, I think Q is Q, and the Q of both
>types of loops is the same provided the same materials have been used
>in both loops.
>

Forget Rjeloop3 for the moment and think about what you have.

You focus on how low the resistance of the loop inductance is, and whether or not the capacitor ESR is significant... neither is when you jam a 2 ohms receiver in series with it all (ignoring the transmission line).

You seem to be analysing your series circuit with part of it (the rx) replaced with a s/c.

>I am (for now) not considering the effects of hooking it to a receiver
>and/or the transmission line. I confess I have not tried to quantify

Well, what good is it to know what the loop L and C do when not connected to the receiver?

>the actual values of the ac resistance of the copper and have only
>rough estimates of what the esr of the caps is. I'd be pretty

>surprised if the dc resistance of the cable is much more than .1 ohms
>though, so the ac resistance should be a little higher at 60 KHz.
>
>Can you estimate what the unloaded Q of the loop is (in round
>numbers), and if so, can you agree that it might be around 221 (as
>Reg's software predicts)? Can you estimate what the impedance of the
>loop is (in round numbers)? Again, do not factor in the receiver input
>impedance as we aren't sure whether I'll keep it as is or match it's
>impedance with a preamp and/or toroidal transformer. For the moment,
>assume the receiver is mounted at the loop (which is a very real
>possibility since it's fairly small).

Read Richard's response, though it is more detailed and no doubt more accuracy.

I think you will understand the problem when you analyse a three component series circuit (your topology), the Loop L, the Loop C and the Rx input z. (You can ignore radiation resistance, loop loss, capacitor loss, they are all much less than rx input z so the loops loss is dominated by the rx input z in your circuit.)

The place this will end up is that you will come to realise that knowing how the L and C of the loop behave unloaded, and dwelling on that behaviour ignoring the effect of loading is probably why you are where you are (an assumption I know).

When you have worked that out, you may understand why others are asking how you are going to couple to the loop. Your proposal to insert the 2 ohms (or whatever) rx input in series with the loop components isn't delivering what you wanted, and it won't matter how thick the loop conductor is, or how low the ESR of the capacitor is.

Owen
--

2843. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 04:09:57 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a5afc$4361a4ed$97d56aa2$14781@ALLTEL.NET>
Source record: 68440

In a series resonant circuit, at resonance it is equivalent to a dead short (disregarding the R of the circuit). Series resonant circuits are usually used as traps. To develop a voltage one needs a parallel resonant circuit at the resonant frequency, The Q will simply determine how quickly the voltage falls off each side of resonance.

Next there are two types of Q, first the calculated unloaded Q and second the in circuit or loaded Q.

I think you are heading down the wrong path with the series circuit as your fighting a loosing battle. Assuming a perfect coil and capacitor you create an infinite Q circuit. Now you hook it up in your circuit. First there has to be enough resistance to develop the voltage , and here is the rub, as you increase the resistance to develop a voltage you decrease the Q. Yuk!

Go with a parallel circuit like the rest of the world uses and you will be going in the right direction.

<TRABEM> wrote in message news:d113m196ib2c4khminc246f8hr0jkitrg6@4ax.com...
> On Thu, 27 Oct 2005 14:55:32 -0400, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >May I ask, what is with the almost fanitical adherence to Q?
>
> Sure, it's a fair question.
>
> I have a simple receiver with a low impedance input that is few with a
> toroid transformer and a tuned circuit to match the impedances and to
> keep out of band signals out.
>
> I want to convert the receiver from HF to VLF (60 KHz) and to use a
> series tuned loop of high Q as an antenna. In order to simplify the
> receiver input, I have mentioned as an option to eliminate the 50 ohm
> matching transformer and the tuned circuit in the front end of the
> receiver....and to feed it directly with my low impedance loop. In
> this way, the loops high Q would serve as the only means of preventing
> out of band signals from getting into the receiver.
>
> In order to make sure that actually happens, I suggested making the
> loop Q as high as possible.
>
> Hence my 'almost fanatical adherence to Q'
>
> Not sure if it will work, but wanted to run it past the group.
>

> Regards,
>
> T
>
>
>

2844. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 04:15:03 UTC
From: TRABEM <>
Message-ID: <t853m1hdpvu0nasf5bhkr5o3kneo4r9pfl@4ax.com>
Source record: 68441

>>I have a series resonant loop ......
>
>A series resonant loop. First, this is a contradiction in terms and
>as your interpretations hinge upon this reading, it bears examination.
>

OK, now we're making progress. I knew there had to be an explanation for your insistence that the antenna presented a 2K impedance to the feedline! I absolutely knew it could not be correct and you were equally determined:>:

Let me describe exactly what I hope to build, and you can enlighten me regarding what the proper term is. Thanks for hanging in there, the road was a little bumpy....

I'm thinking feedline attached to one end of the wire. The other end of the wire is attached to the capacitor bank. The other side of the capacitor bank is attached to the other feedline terminal. Or, stated another way, the cap is in series with the wire and the 2 transmission line terminals are connected to the left over cap and the unused wire end.

>>A series tuned circuit is a low impedance circuit, so 60 KHz signals
>>from the antenna are passed to the receiver
>
>To be in series, you have to describe the source and its common, you
>simply describe the loop. With this, you neglect the coupling between
>the actual source of power, a remote transmitter, and the antenna's
>Radiation Resistance. This value appears no where in your analysis
>and yet it is largely responsible for the atrocious efficiency of this
>breed of antenna.

OK, but I hadn't thought this entered into the calculations of the loop.....it is what it is and we all know it's too damn short and too damn close to the ground to be efficient. At 60 Khz, there is so little difference between 5 feet off the ground and 50 feet off the ground, that I guess I never thought it mattered much...and, so tended to skip over these details. Any antenna that I can build with my budget will never be efficient:>: Is this a fatal error, or do I really need to look at this issue to proceed?

I understand these types of shortened antenna are often less than .001 percent efficient because they are so short relative to the wavelength being transmitted or received.

>
>I've thrown together a quick model of your 5M on a side loop using
>(and being generous) #1 wire. The bottom of the loop is 10M above
>ground. In terms of performance relative to an isotropic antenna it
>is down 60dB. It displays an impedance of:
> Impedance = 0.05849 + J 10.37 ohms
>An addition of a 0.2555ï¿½F capacitor draws this down to:
> Impedance = 0.05851 + J 0.006073 ohms
>
>Please note that the capacitor is perfect, no ESR whatever. In a
>system with Zc = 0.0585, this antenna presents a 1.11 SWR. The half
>power points of its resonance are only 600 Hz apart. Hence a Q of
>100.
>

OK, are you telling me my receiver would need to have an (impossibly low) input impedance of .06 ohms to work well with the antenna I've planned?

>This is without any extraneous detector circuitry whatever. We will
>see where its addition leads.
>
>By simply inserting your 2 Ohms (I know full well where my 10 Ohms
>will take us) - in series - (again, your thesis) and re-assigning the
>system Zc to that same 2 Ohms, this antenna presents a 1.077 SWR.
>

OK, I'm not completely understanding the last paragraph. Have we abandoned the .06 + j10 real loop impedance and/or are we talking only about feeding a 2 ohm impedance loop into a 2 ohm impedance receiver (which seems to be a match made in heaven at first glance)?

If we aren't considering the .06 j10 anymore, are you trying to impress upon me that even a perfectly matched 2 ohm antenna connected to a 2 ohm impedance receiver knocks the Hell out of the Q by that large of a factor?? If so, I can understand the need for the buffer follower you suggested earlier!!

Send me a sign, I sense an incoming lightening bolt::>

Another user just suggested I think of Q as stored energy and that anything that consumed that energy severely lowers the Q. I can understand that since the goal of the impedance matching is to transfer as much of the stored energy as possible. Further, if this is the case, it seems an active antenna matching buffer amp (impedance shifter) is necessary when using a loop of the type I planned. Not sure whether I am getting it or going off on another tangent....like I said above, send me a sign:>:

>Sounds hunky-dory, right? Except when you look at the Q which has
>plunged to 2.9 and the antenna loss now compares to -75dB compared to
>an isotropic.
>

>Your receiver, in series with the loop, has just killed 15dB of gain
>and wiped out the Q by 95%. Not bad for a day's work.
>
>I will forgo the remainder of your questions to allow you to digest
>the material above.

Yes, please do forgo, for the moment anyway..... Please specify whether you are explaining a 2 ohm impedance loop hooked to a 2 ohm impedance front end (in the preceding paragraph). Then, we can proceed I think..... I'm trying to assume NOTHING. Please forgive me if I seem to need a lot of clarification.

>>Not sure what I did to deserve an honored position in your kill file.
>
>This is not the kill file of unsophisticates simply ignoring by
>posting name. Agent has much more flexibility to read headers and
>judge what is spam.................

OK, understand. When you made the original comment, I thought you were saying I had done something purposely inappropriate. I use Eudora in order to avoid the Bill Gates problem, so I understand the difference between sorting to the trash and sorting to the junk mailbox! Trash is trash, gets emptied forever when I close the program. Junk is possibly trash, but doesn't fit all the criteria, so it's saved (just in case it really isn't garbage).

Got yah.

>your
>headers appear to be spoofed. Now, tell me that you aren't doing
>something out of the ordinary like passing mail through an open relay.
>

Well, I'm not sure how and what happens after I hit the send button. To the best of my knowledge, I am not doing anything of that nature. It's (my email) a paid service, so it should be on the up and up. Is it possible it might be a DSL issue, where the IP address is masked to some extent?

Thanks for hangin in there.

T

2845. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 04:27:16 UTC
From: TRABEM <>
Message-ID: <7o93m1p82gc2fks232ojbb2f87u3v4odpc@4ax.com>
Source record: 68442

>
>I think you are heading down the wrong path with the series circuit as your
>fighting a loosing battle. Assuming a perfect coil and capacitor you create
>an infinite Q circuit. Now you hook it up in your circuit. First there has
>to be enough resistance to develop the voltage , and here is the rub, as you
>increase the resistance to develop a voltage you decrease the Q. Yuk!
>
>Go with a parallel circuit like the rest of the world uses and you will be
>going in the right direction.

I think I'm starting to get it. Am I cutting off my foot to spite my
face::>

Comments made by you and a few others have nudged mein the right
direction.....

The higher I make the series resonant Q, the lower the impedance goes,
hence it's almost impossible to get a lot of voltage out of it??

Not sure why it matters that much. But, I was under the impression
that a perfectly matched antenna and front end would only decrease the
Q by a factor of 2.

Follow along with Richard's comments if you like and add your comments
as I check here often and read everything, sometimes many mant y
times:>:

Regards,

T

PS:I had begun thinking that the higher imedance presented by a
parallel loop was harder to match with a balun, which is why I started
thinking of a series loop. I'm gettin there, thansk again.

2846. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 04:42:15 UTC
From: TRABEM <>
Message-ID: <t7a3m1t8afrjg3g8gt7qqfmgqvv95r7d70@4ax.com>
Source record: 68443

> I've been trying to follow this thread because I like to play with tuned
>loop antennas for broadcast band reception.

I'm not sure you missed that much, I'm possibly on the right track
though.

> I missed the part about how much this 20 meters of #2 copper cable with
>its support weighs. Your project sounds Serious. That antenna must weigh
>close to 500 pounds

No, not all. It's a little heavy, but we have big tall hard wood
forest here and my main concern is not weight, it's the ice that
happens in Winter. So, lighter wire would never survive.

> The loop antennas I've been building are large diameter coils of smaller
>wire. I recognize that the type antenna I build arent acceptable for your
>consideration. But, I do have some experience with using a low freq loop
>in the city. If you are located near man made noise, it is very likely
>that resonating the loop doesnt result in highest Signal/Noise ratio.

I understand this. But, I live quite a distance from any city and the
distances to my neighbors is measured in hundreds of feet. It's quite
rural. If I suspect there is a source of noise in the house, I have
access to the high voltage (pole mounted disconnect) and can shut the
power off to my house from a switch 900 feet from the house. If the
noise persists, it isn't a local noise source:>:

> Perhaps you already have experience with Low Freq loops and can tell me
>about your experiences. I am interested in learning.
>

I'm still learning too......and look forward to getting the big loop
up. It's starting to look like i need to go back to the books though.
Right now, Richard is trying to get me back on track as I've
apparently led myself astray. I'm definitely still learning:>:

T

2847. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 04:50:15 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <b6a3m1575gajkcjq5t2e9sifj53hp334n3@4ax.com>
Source record: 68444

On Fri, 28 Oct 2005 03:00:00 GMT, Owen Duffy <owen@no.where> wrote:

>I think you will understand the problem when you analyse a three
>component series circuit (your topology), the Loop L, the Loop C and
>the Rx input z. (You can ignore radiation resistance, loop loss,
>capacitor loss, they are all much less than rx input z so the loops
>loss is dominated by the rx input z in your circuit.)

So... if you did this, and you want the loop to give you front end selectivity, and you want the bandwidth to be xxx which led you to want the LOADED Q to be 100 or more (whatever), you now know that the load introduced by the receiver into the series loop you have dictated needs to be better than (<) XL/Qloaded or < 0.1 ohms (not twenty or more times that value).

How can you deliver a load impedance to the loop derived from the rx input circuit and its transmission line that is efficient and less than 100 milliohms (at the loop)?

Is your single turn series loop idea practical at 60KHz?

Owen
--

2848. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 06:25:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4ge3m113gs5l2bk9pfr7jalmk32r01ce94@4ax.com>
Source record: 68445

On Fri, 28 Oct 2005 00:15:03 -0400, TRABEM <> wrote:

>OK, now we're making progress. I knew there had to be an explanation
>for your insistence that the antenna presented a 2K impedance to the
>feedline! I absolutely knew it could not be correct and you were
>equally determined:>:

You are not off the hook yet.

>Let me describe exactly what I hope to build, and you can enlighten me
>regarding what the proper term is. Thanks for hanging in there, the
>road was a little bumpy....
>
>I'm thinking feedline attached to one end of the wire. The other end
>of the wire is attached to the capacitor bank. The other side of the
>capacitor bank is attached to the other feedline terminal. Or, stated
>another way, the cap is in series with the wire and the 2 transmission
>line terminals are connected to the left over cap and the unused wire
>end.

Fine, but it doesn't really matter. The unloaded Q is one thing, the
loaded Q that is seriously depressed is another.

>OK, but I hadn't thought this entered into the calculations of the
>loop.....it is what it is and we all know it's too damn short and too
>damn close to the ground to be efficient.

You have so little efficiency, that the proximity of ground hardly
matters (you already know this) - until we look at the lobe pattern,
balance, and that side of the coin.

>or do I really need to look at this issue to proceed?

You do your best - you are not that far from it. The loop allows you
to end load it better than using a dipole with coils.

>>I've thrown together a quick model of your 5M on a side loop using
>>(and being generous) #1 wire. The bottom of the loop is 10M above
>>ground. In terms of performance relative to an isotropic antenna it
>>is down 60dB. It displays an impedance of:
>> Impedance = 0.05849 + J 10.37 ohms
>>An addition of a 0.2555ï¿½F capacitor draws this down to:
>> Impedance = 0.05851 + J 0.006073 ohms
>>
>>Please note that the capacitor is perfect, no ESR whatever. In a
>>system with Zc = 0.0585, this antenna presents a 1.11 SWR. The half
>>power points of its resonance are only 600 Hz apart. Hence a Q of

>>100.
>>
>
>OK, are you telling me my receiver would need to have an (impossibly
>low) input impedance of .06 ohms to work well with the antenna I've
>planned?

Just compare that to the 2 Ohms you hoped for and see what happened.

>OK, I'm not completely understanding the last paragraph. Have we
>abandoned the .06 + j10 real loop impedance and/or are we talking only
>about feeding a 2 ohm impedance loop into a 2 ohm impedance receiver

You have injected 2 Ohms into the series circuit - it is now part of
the antenna even if it inside the receiver.

>(which seems to be a match made in heaven at first glance)?

Simply a slight of hand, mathematically. You have to pick a reference
you call Zc (characteristic impedance) of something, and your
resistance is wedded to the antenna. However, the reality of it is
that the native loop compared to the actual load is severely
mismatched. You don't lose 15dB gain on the stairway to heaven. Most
would parallel a loop's capacitor with a really big resistive input Z
match to preserve Q. You chose a path that is leading to grief.

>Send me a sign, I sense an incoming lightening bolt::>

ZAP

A series load in a circuit that is heavily laden with current requires
a very, very small value. Your switches are deadly elements even if
they are the best in the market.

That same circuit, sans series detection, also supports high voltages
courtesy of Q. At this frequency you have a world of components that
can tap them without seriously loading the circuit and killing the Q,
and the voltage, and the efficiency.

Hence a follower ACROSS the capacitors and AT the loop driving the
line back to the detector. A follower that presents 20K or even 2000K
Ohm load to the loop at 60KHz is a walk in the park. You aren't going
to recover that initial 60dB plunge from the size of the antenna, but
you don't have to grease the slide for another 15dB plummet.

Still, and all, there's always the practical reality that the design
will work out of the box. Wrist watches do it. It won't be the best,
but there's not much competition and this isn't DX we are talking
about, unless you want to work Europe's VLF (and even then you may
hear signals).

You still haven't bitten the bait on what makes the "I" and "Q"
channels useful beyond cramming them into black boxes to strip away
the only really useful angle (pun intended) they offer - phase

information. This is in fact the single most fascinating aspect of
the detectors.

73's
Richard Clark, KB7QHC

2849. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 08:23:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djsn6a$4a1$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68446

<TRABEM> wrote in message
news:7o93m1p82gc2fks232ojbb2f87u3v4odpc@4ax.com...
>
> >
> >I think you are heading down the wrong path with the series circuit
as your
> >fighting a loosing battle. Assuming a perfect coil and capacitor
you create
> >an infinite Q circuit. Now you hook it up in your circuit. First
there has
> >to be enough resistance to develop the voltage , and here is the
rub, as you
> >increase the resistance to develop a voltage you decrease the Q.
Yuk!
> >
> >Go with a parallel circuit like the rest of the world uses and you
will be
> >going in the right direction.
>
>
> I think I'm starting to get it. Am I cutting off my foot to spite my
> face::>
>
> Comments made by you and a few others have nudged mein the right
> direction.....
>
> The higher I make the series resonant Q, the lower the impedance
goes,
> hence it's almost impossible to get a lot of voltage out of it??
>
> Not sure why it matters that much. But, I was under the impression
> that a perfectly matched antenna and front end would only decrease
the
> Q by a factor of 2.
>
> Follow along with Richard's comments if you like and add your
comments
> as I check here often and read everything, sometimes many mant y
> times:>:
>
> Regards,
>
> T
>

> PS:I had begun thinking that the higher imedance presented by a
> parallel loop was harder to match with a balun, which is why I
started
> thinking of a series loop. I'm gettin there, thansk again.
>
==========
Trabem,

This discussion is getting you nowhere very fast.
So let's summarise.

I don't have your exact dimensions but the following are good enough.

L = 27uH, Reactance = j10 ohms, Conductor loss = 0.05 ohms, ESR =
0.01 ohms, Radiation ohms = 0. Receiver input = 10 ohms, Ground
loss ohms = 0.01

The intrinsic Q of the loop is 10 / 0.05 = 200.

The working Q of the loop, when series connected, is Reactance divided
by the SUM of all resistances including the receiver.

Working Q = Reactance / (0.05 + 0.01 + 10 + .01) = 10 / 10.07 =
0.993

Take note of the ridiculous low value of working Q due to the loop
being in series with the receiver.

Reg.

2850. Re: Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 09:20:55 UTC
From: Detlef Conradin <skyline@despammed.com>
Message-ID: <4361ed77$0$1153$5402220f@news.sunrise.ch>
Source record: 68447

>> To get started with nec2 I tried to simulate a simple dipole.
>> The graphical view of the pattern looks okay, however the gain seems
>> to be to high. To what are the DBs refered in the output file?
>> [...]
>> If I calculate the gain with the formula:
>>
>> 4 * Pi * r^2 * |E|^2
>> Gain = ----------------------
>> P_in * 2 * 120 * Pi
>>
>> by using the E-Field magnitude values from nec2's output I get also
>> those very high values. (?)

> PS, also confused by your formula. Which Value of E are you using? Are you
The formula should be correct:
I just use the magnitude value of the E Field. The intensitiy
W_rad is then 0.5 * |E|^2 / Z_w (E and H are in phase and
orthogonal in the far field)

The radiation density U is then r^2 * W_rad (Unit: Watt per solid angle)

The radiation density U_0 of an isotropic radiator with a total radiated
power P_rad is: P_rad / (4 * Pi).

The gain is then U/U_0 (or in dBi: 10*log(U/U_0)).

> trying to calculate the "Total radiated power" (TRP)? If so you need to
> integrate the power density over a spherical region. The calculation is
Yes, but nec2 shows the total radiated power in its output.

> As for your RP card, I notice that you are attempting to vary both "Theta"
> and "Phi". I usually keep one fixed and vary the other, but to be honest I
> am not sure if what you are doing is incorrect, although I notice that the
> "Phi" pattern is only computed for one frequency. The only other difference
No thats no true. In the output file I can see E_phi as well as E_theta for
every combination of phi and theta (for every frequency).
I use the programm Xnecview to view the pattern and it has problems if you
don't have points over the full sphere.

> is that I normally do not use gain averaging. Also using 1 degree
The average gain (over the full sphere) should probably be 1 (or 0 dBi).
I get 0.991.

Thanks for you help! The bad computation was caused by the stupid
segementation I had chosen.

Detlef

2851. Re: Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 13:41:15 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <%Tp8f.53982$y_1.42878@edtnps89>
Source record: 68448

```
>>> 4 * Pi * r^2 * |E|^2
>>> Gain = ----------------------
>>> P_in * 2 * 120 * Pi
>>>
>>> by using the E-Field magnitude values from nec2's output I get also
>>> those very high values. (?)
>
>> PS, also confused by your formula. Which Value of E are you using? Are
>> you
> The formula should be correct:
> I just use the magnitude value of the E Field. The intensitiy
> W_rad is then 0.5 * |E|^2 / Z_w (E and H are in phase and
> orthogonal in the far field)
>
> The radiation density U is then r^2 * W_rad (Unit: Watt per solid angle)
>
> The radiation density U_0 of an isotropic radiator with a total radiated
> power P_rad is: P_rad / (4 * Pi).
>
> The gain is then U/U_0 (or in dBi: 10*log(U/U_0) ).
>
>> trying to calculate the "Total radiated power" (TRP)? If so you need to
>> integrate the power density over a spherical region. The calculation is
> Yes, but nec2 shows the total radiated power in its output.
>
>> As for your RP card, I notice that you are attempting to vary both
>> "Theta"
>> and "Phi". I usually keep one fixed and vary the other, but to be honest
>> I
>> am not sure if what you are doing is incorrect, although I notice that
>> the
>> "Phi" pattern is only computed for one frequency. The only other
>> difference
> No thats no true. In the output file I can see E_phi as well as E_theta
> for
> every combination of phi and theta (for every frequency).
> I use the programm Xnecview to view the pattern and it has problems if you
> don't have points over the full sphere.
>
>> is that I normally do not use gain averaging. Also using 1 degree
> The average gain (over the full sphere) should probably be 1 (or 0 dBi).
> I get 0.991.
>
> Thanks for you help! The bad computation was caused by the stupid
```

> segementation I had chosen.
>
> Detlef

Very interesting Detlef. I must admit I did not study the formula too closely, so will look at it again, to be sure I understand it.

My version of NEC2 has a built in NEC-View utility (NEC-Win Pro), so am not familiar with Xnecview. I will try your full spherical pattern RP card, and see if I can run it. When I first cut and pasted your code I was getting strange FORTRAN code error messages -- something I have never seen before -- and the program was locking up (Windows XP OS). Modifying the RP card cured the lock up problems. Examination of the segment currents would also probably have indicated the segmentation problem area. At 1 degree intervals the NEC output file would be huge, so can see why you chose 5 degree increments.

As for "Total radiated power" (TRP) I assume you mean the "Power budget" output. I had thought this is only valid for free space computations. With antennas placed close to the ground the "Power budget" only seems to account for copper losses. Just a minute, now you have made me start thinking. My "Network Loss" line in the power budget output always shows zero. Did I miss something? Do I have to invoke something in the RP card to make "Network loss" non-zero, and thus arrive at a true TRP. Heck! To think all this time I have been running Excel numerical integration routines to determine the TRP.

Regards,

Frank

2852. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 15:02:18 UTC
From: TRABEM <>
Message-ID: <n3c4m1lvvs8pi84mbkhuuidu0tfhv6de3l@4ax.com>
Source record: 68449

OK Richard, it looks like the lights are beginning to come on and I'm on a different road (a road that doesn't end in a fiery disaster).

At the risk of jumping to far ahead......

Let me know if this is correct or not......

Let's dump the series loop, it doesn't sound promising:>:

So I'm (now) using the same wire and the same resonating C, but it's in a parallel configuration. My loop is 2K impedance, my receiver is 50 ohms (more conventional although maybe not necessarily tuned, TBD).

Is my mission to purposely isolate the loop so that anything happening in the receiver doesn't impact the loops Q? To maintain the best possible Q, would I mismatch the antenna to preamp impedance on purpose, providing a 50K or even 100K input impedance buffer, so as not to suck power out of the loop? And, should the output of the buffer present an approximate 50 ohm output impedance, therefore matching the input impedance of the RX (for best power transfer)? If this is the case, an active buffer amp seems inevitable.

You gave me numbers for a 2 ohm loop fed into a 2 ohm RX.

If I do not buffer the loop from the RX, wouldn't a 2K loop fed into a 2K RX also cause similar loss of Q (just like the 2 ohm over 2 ohm example you gave previously)?

I'm absolutely sure I'm not out of the woods yet, but does it look like I'm on the right road yet?? It's a big change for me, can you give me a brief indication please....

Thanks.

And, I am definitely not avoiding the I/Q issue. I know of successful hardware handling examples of the I/Q and also of successful software handling methods. I just haven't decided which one to use yet. The stand alone hardware is a bit harder to implement, complex filters, much more hardware to build, and a wideband phase shifting network are needed. But the advantage is that it's a stand alone solution.

Software works well also, but leaves one dependent on the programmer and requires a computer. Not sure which way I'll go, but it's not important yet as I don't have a viable front end and antenna yet.

So, am I on the right road, or am I still very far off track with regard to the antenna Q issue?

Regards,

T

2853. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 15:27:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djtg1b$n36$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68450

Dear Trabem,

The input impedance seen looking into the series-connected loop is the RF loss resistance of the loop, in your case about .05 ohms.

If 0.05 is impedance-matched to a 10-ohm receiver then the working Q only falls to about 100. But it is not an easy matter to match 0.05 ohms to 10 ohms at 60 KHz. (I do not know the precise input resistance of your receiver but you get the idea.)

The working Q of any tuned circuit, either series or parallel connected, when impedance-matched to a load, always results in the working Q becoming equal to half of the tuned circuit's intrinsic Q.

This is rather obvious because the loss resistance of the tuned circuit and the load (after being transformed to the tuned circuit value) are equal to each other.

Of course, impedance-matching also results in maximum voltage and maximum current being developed in a given load (or receiver). Which is also a desirable condition.

It is a serious mistake to think in terms only of volts-input to the receiver. Or only current-input to the receiver. Receiver S-meters are POWER meters. That's why they can be calibrated in decibels or in terms of 6dB per S-unit. Or S9 plus so many decibels.

For example, with a 50-ohm receiver, the reference level S9 = 50 pico-watts receiver input power.

Please accept my apologies for digressiing from 5-metre square loops at 60 KHz.

Reg.

2854. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 16:02:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <54h4m1hmsc2cl64evcupb4uoa74lf6v07c@4ax.com>
Source record: 68451

On Fri, 28 Oct 2005 11:02:18 -0400, TRABEM <> wrote:
>Is my mission to purposely isolate the loop so that anything happening
>in the receiver doesn't impact the loops Q?

The advantage of Q is that it multiplies I and V giving you
sensitivity. As I have pointed out before, your current design could
work without any changes. I cannot answer this for myself much less
you and the advice I would have to offer is that you build your
receiver with flexibility in mind. We are not talking big changes in
components. That is the long answer. The short answer is yes.

>If this is the case, an active buffer amp seems inevitable.

Easy enough to include, or remove depending on need.

>If I do not buffer the loop from the RX, wouldn't a 2K loop fed into a
>2K RX also cause similar loss of Q (just like the 2 ohm over 2 ohm
>example you gave previously)?

Certainly, but not similarly. The Q is not going to plunge to 2 or 3.

>And, I am definitely not avoiding the I/Q issue. I know of successful
>hardware handling examples of the I/Q and also of successful software
>handling methods. I just haven't decided which one to use yet.

That is the point of my questions. They are veiled implications, not
tests of knowledge. No one in your list of links, much less those
I've read over the years knows the PRACTICAL implication of the "I"
and "Q" channels. So, I may as well drop the other shoe.

One does the demodulation of AM signals, the other provides
demodulation of FM and SSB signals. I'm not sure which and what
particular arrangement of supporting circuitry is required beyond
simple AM amplifiers because my construction for that application was
back in 68-69. Building tube models and guaranteeing design
considerations was not as simple as the Tayloe circuit offers now.

However, one of the fascinating characteristics of this style of
detector is that you can feed each channel to the earpieces of a
stereo headset. "I" for one, "Q" for the other earpiece. This gives
you the chance to use your wet-ware instead of someone's software and
hardware.

The brain does all the necessary fourier analysis automatically and in
real time. The upshot of it is that when listening to a CW signal,
and hearing the field of signals around it, you perceive those signals
in a mind-space. The signal that is center tuned sounds like it is

between your ears, in the middle of your, as I described it, mind-space. Those signals that are above it in frequency sound as though they are coming from the right, and those signals that are below it in frequency sound as though they are coming from the left.

The advantage of this detector, in this configuration, with this kind of perception, is that your mind is separating the signals psychologically. Even though the signals you hear on the left and right are in equal amplitude to the center, you can exclude them mentally. Imagine taping a conversation in room full of people and the microphone is not at your, or your partners lips, but between you, and you are both standing off a couple of feet talking over the crowd. You full know that you could understand your partner at the time of the recording, and you probably know that the tape would be a bitch to make sense of, even though it makes a faithful record of the conversation in that free-for-all.

The difference is that your binaural perception with its phase separation capability could be brought to bear to ignore the field of noise to concentrate on your partner. When you hear the mono recording, the phase information is lost and your partner's conversation merges with the background noise.

I cannot personally vouch for this effect because the payoff in my construction back then didn't come down to finally evidencing this effect for myself. This wet-ware characteristic was reported to me to be one of the attractions of building for my professor. I have also played with bucket-brigade delay lines to create this effect. At one time Paul McCartney was using it with his music. Aural phase relationships have a strong psychological information content that is taken for granted.

73's
Richard Clark, KB7QHC

2855. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 16:24:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djtjc7$g52$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68452

The mixed-up confusion along this extended thread is due to the inability of contributors to describe in plain English exactly what they mean about a relatively simple matter. It's a breeding ground for baffle-gab, confusing nonsense and old wives.

To avoid wasting more time I respectfully suggest Trabem obtains a big bunch of capacitors of various values and gets on with the job. We will all be very interested in the outcome.

Now perhaps we can return to which part of a 1/2-wave dipole does the most radiating - the middle bit or the ends?

Reg, G4FGQ.

2856. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 16:44:00 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130517840.416064.174050@g47g2000cwa.googlegroups.com>
Source record: 68453

OK, maybe you're beginning to understand. Q can be calculated as reactance (at resonance) divided by the effective series resistance, or as effective parallel resistance divided by reactance at resonance. For a loop where you know the series resistance, it's easiest to use that first relationship. If you put your 10 ohm receiver input in series with your 10 ohm reactance loop, you've ruined all that effort to get to a very low loop conductor resistance and obviated the need for high-Q capacitors. And we're all having a very hard time seeing how you will couple your 10-ohm receiver input to EITHER the parallel-tuned loop OR the series tuned loop, without having nasty consequences for your holy-grail Q.

You might think it's best to impedance match ("conjugate match") to your load, so you transfer the most power to the load. However, that may not be optimum from a system design standpoint. If you already have enough signal (along with atmospheric noise) that the receiver doesn't contribute significantly to the overall SNR, then you may be better off by intentionally mismatching so that the Q remains high, if that's important to you. (I personally think you've overrated it, but that's up to you to decide.) But even if you're wanting to get the lowest noise contribution from your electronics, the appropriate match is generally not the conjugate impedance match that results in highest power transfer. For example, an MMBT2222 NPN transistor running at about 100uA collector current in a common-emitter configuration with no feedback will have a low-frequency (e.g. 60kHz) input resistance around 50kohms, but the optimal source resistance from a noise standpoint--the source resistance which will yield the lowest noise figure for the amplifier--will be about 2kohms. At optimal source resistance, you can get a noise figure well below 1dB from an MMBT2222--and from many other bipolars.

One reason that people like to use FET amplifiers across their "parallel-tuned" loops is that the amplifier input resistance is quite high, but (using appropriate FETs) the noise contribution of the amplifier is negligible. And with proper design, the distortion contribution can be considerably lower than the distortion of your detector. For high source impedances, JFETs can give noise figures that are a small fraction of a dB.

Cheers,
Tom

2857. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 16:45:50 UTC
From: TRABEM <>
Message-ID: <iuj4m1h0as5ea1t7cddnf802gi1610ce28@4ax.com>
Source record: 68454

OK Reg,

Hi Reg,

Read both of you responses, and it's very clear now that I was seriously out in a fantasy world with respect to the topic. I feel a lot closer to reality now.

If you can, check the latest comments between Richard and myself. I think I'm getting it, or at least the first approximation:>:

You provided a key piece of info when you gave me the verbiage about the loaded Q formula in a series tuned loop. When I started out, I had no idea that the loaded Q could possibly drop so much when connected to a receiver!

>The working Q of any tuned circuit, either series or parallel
>connected, when impedance-matched to a load, always results in the
>working Q becoming equal to half of the tuned circuit's intrinsic Q.

I knew this already!

My big problem was in realizing that the loop impedance was so very very low. Once Richard got me a closer approximation of the actual number, it became VERY clear to me that there was no impedance match in my original configuration! Richard suggested the impedance of the loop was 2K, I guessed it was 2 ohms, but the actual figure was in the milliohm range.

I feel SO MUCH better now and I think I'm much better off thanks to your (and Richard's) patience. Thank you so much for helping me to get to this point!

T

2858. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 16:46:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djtkkn$5ap$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68455

By the way, I consider the most sensible and understandable
contributions to this thread have been the questions asked by the
originator, Trabem.

I am now half-way down a bottle of South African red plonk. It's
supposed to be good for the arteries.

Reg, Hic.

2859. Re: Supply 3 Pole Gas Tube Arresters(Gas Discharge Tubes)3-Electrode Cdramic Surge Arrester,Ceramic Surge Arresters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 17:03:59 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1130519039.222289.109810@g44g2000cwa.googlegroups.com>
Source record: 68456

Ok, how does this relate to antennas?

Are your devices UL approved? If not, my insurance will not pay for
loss with these devices in use in either my house or my plant.

Paul

samul888@vip.163.com wrote:
> Supply 3 Pole Gas Tube Arresters(Gas Discharge Tubes)3-Electrode
> Cdramic Surge Arrester,Ceramic Surge Arresters
>
> We are a professional manufacturer from China mainly produce 3 Pole Gas
> Tube Arresters(Gas Discharge Tubes)3-Electrode Cdramic Surge
> Arrester,Ceramic Surge Arresters
>
> See More Details at the Link:
> http://www.cheerwe-telecom.com
> http://indonetwork.info/cheerwetelecom
>
> My E-mail:ebaby88888@yahoo.com.cn
> Tel:+86-135-86539769

2860. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 17:37:32 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_4362205c@fidonet.org>
Source record: 68457

"TRABEM" bravely wrote to "All" (28 Oct 05 00:42:15)
--- on the heady topic of "Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?"

TR> From: TRABEM <>
TR> Xref: core-easynews rec.radio.amateur.antenna:219360

This should require a matching transformer otherwise not enough current can flow to take advantage of the potentially huge Q. Without current flow there will be no energy storage in a series circuit. In a parallel circuit the current flow is internal between the parallel reactances but in a series circuit it must be external. A series circuit is naturally current driven so the transformer would basically be converting current into a voltage that the receiver input can use. If you measure your loop with a test signal you should find it requires a lot of current and little voltage. From your investigations, calculate the effective resistance and use this as your Rs to find the actual Q and the matching turns ratio required for an autotransformer, for example.

Good luck,

A*s*i*m*o*v

... Why is Brassiere singular and Panties plural???

2861. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 18:19:14 UTC
From: TRABEM <>
Message-ID: <spl4m1tljl6quuaajo5ln0r85f7lbkpa0j@4ax.com>
Source record: 68458

Hi Richard,

I feel SO MUCH better now!!!!!!!!

Just read and replied to Reg's latest comments a few minutes ago and it seems I am on the right track-my major error was not realizing that my series loop impedance as originally suggested was very much lower than I thought it to be ...and I've finally realized that it COULD NOT POSSIBLY be matched to a receiver that had 2 (or 10) ohms input Z.

Now that I've realized my originals series loop antenna had an impedance in the milliohm region, the other explanations that you gave made perfect sense.

At least, I feel like I made it to the first level:>:

I'm a little hesitant to make this suggestion, but let me ask the question(s) at the risk of taking to large a step forward and stumbeling:>:

If you would, just give me a yes or no answer to these questions so I can make sure I don't have seriously flawed remnants of the old thinking.....

With the current model of parallel loop...

If my receiver was 2K input impedance (whether tuned input or not), could I connect it to my loop with a piece of 2000 ohm open wire line and expect the net (or loaded) Q to be around 100 (assuming a 2K impedance open wire line could be built and that my unloaded antenna Q was 200 to start with).

Yes or No?

With the current model of parallel loop...

If I elected to use a buffer amp with megohms of input impedance, would I preserve the unloaded Q and end up with a net Q of about 200 because I haven't loaded the loop?

Yes or No?

I believe my receiver is microvolt sensitive and that the loop will deliver a relatively good signal to the receiver even though the loop isn't terribly efficient. If I build selectivity into the front end of the receiver, do I really need high Q (200)??

I think the answer is NO.....

Since my receiver is quite sensitive (characterized at uV before I convert it to VLF), I think I could save a lot of money by sacrificing some antenna Q and building modest selectivity into the front end.

Or, I could elect to use the antenna as planned (impedance matched, but no front end tuned circuit) and instead convert the receiver to an untuned input (allowing the antenna Q to be the sole form of tuning).

Is this reasoning basically correct or seriously flawed?

>
>However, one of the fascinating characteristics of this style of
>detector is that you can feed each channel to the earpieces of a
>stereo headset. "I" for one, "Q" for the other earpiece. This gives
>you the chance to use your wet-ware instead of someone's software and
>hardware.
>
>The brain does all the necessary fourier analysis automatically and in
>real time. The upshot of it is that when listening to a CW signal,
>and hearing the field of signals around it, you perceive those signals
>in a mind-space.

OK, I am an avid cw operator, often operating as a hired gun at m/m HF contest efforts. So, I completely understand the concept of having the brain do the processing. The brain is a very seriously viable filter that is adaptive with regard to the audio spectrum sent to it by a conventional receiver.

I haven't tried actual binaural operation, but have heard others talk about it. The users claim it is a different world from the very first second of listening to it and are constantly amazed at the effect and improvement.

I have a friend who isn't quite local...but we chat from time to time although we don't see each other that often. He has a high frequency hearing loss in one ear and has a great deal of difficulty with cw. He built a binaural project from a QST article and was stunned to hear the results. He was sold ont he idea in short order!

But I never though much about hooking up a stereo headphone to the i/q audio streams.

>The difference is that your binaural perception with its phase
>separation capability could be brought to bear to ignore the field of
>noise to concentrate on your partner. When you hear the mono
>recording, the phase information is lost and your partner's

>conversation merges with the background noise.
>

OK, I am with you with respect to the brain filtering out unwanted conversations to let you focus on your conversational partners distant voice. But, I thought traditional binaural receiver meant that the frequencies higher than a certain point went to one ear and that the all the frequencies lower than the same frequency went to the other ear. In this manner the listener has a feeling of 'depth' or 'richness' that isn't present in a mono setup.

This is interesting though.

But, I never thought that the brain could process the I and Q to provide opposite (unwanted) sideband rejection...which is why I thought the primary function of the I/Q precessing was about (whether it be hardware or software based).

Are you suggesting that the brain can also process the I/Q output streams and provide opposite sideband rejection as well as selective frequency and adaptive filtering?

>I have also
>played with bucket-brigade delay lines to create this effect. At one
>time Paul McCartney was using it with his music. Aural phase
>relationships have a strong psychological information content that is
>taken for granted.
>

I'll investigate this over the Winter season, which is long and hard here. Thanks for planting a bug in my ear (no pun intended) about this. I probably would not have thought of it otherwise.

Regards,

T

2862. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 19:23:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djttrgoqr1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68459

Trabem,

Without wishing to detract you in any way from your objective of a matched series tuned loop I would like to describe how I would do a similar job with the usual parallel tuned, multiturn loop.

I do not understand the type of receiver you propose and I am not seriously interested. But I should say the theoretical working bandwidth of my proposal is about 1/2 of yours.

Actual bandwidth of both your and my proposals is indeterminate because of the uncertainty of ground proximity and nearby environmental loss. The working bandwidths could be very similar.

Using similar size loop dimensions to yours, ie., 5.3 metres square -
Frequency = 60 Khz.
5 turns of close wound 2mm diameter enamelled wire.
Inductance = 710 micro-henrys.
Tuning capacitor = 0.01 uF approx.
Reactance of L and C = 268 ohms.
Conductor resistance loss = 2.5 ohms.
Intrinsic coil Q = 107
Matched working Q =53
3dB working bandwidth = 1.12 KHz.

Impedance match to 50-ohm receiver obtained via small coupling loop, in the same plane, about 1 metre square. Working Q = 53 or less depending on height above ground.

The working Q may not be high enough for your particular application. I describe the antenna for you to see what is possible in comparison with your series-tuned proposals.

Reg, G4FGQ.

2863. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:09:03 UTC
From: TRABEM <>
Message-ID: <7v05m1ljas0in50cl152ls8c3jvf2k05qa@4ax.com>
Source record: 68460

>By the way, I consider the most sensible and understandable
>contributions to this thread have been the questions asked by the
>originator, Trabem.
>

I think that's a high compliment, considering how totally messed up I
was at the start of this.

>I am now half-way down a bottle of South African red plonk. It's
>supposed to be good for the arteries.

If a little is good, is more better?

And a very BIG + THANKS from me. Thanks for hangin' in there.

Regards,

T

PS:Read your previous example, which closely parallels some existing
real life loops I found on the Internet last evening. Thanks for the
example as well and I think it's time to start soldering.

2864. Tech Opinion Needed: Roof mounted AM/FM Auto Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:09:33 UTC
From: tsterkel <google@sterkel.org>
Message-ID: <1130530173.541787.323700@g47g2000cwa.googlegroups.com>
Source record: 68461
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.pro,alt.autos.studebaker,rec.radio.shortwave

I have a VW Jetta with the "shorty" antenna. I am pleasantly impressed that it works better than the long steel type. The active (electronic) antenna is superior, and I get reception when no one else can.

Here is my question for the techys:

I am looking at getting an Avanti. The shorty antenna would look very rakish, and a nice replacement for that stock extended steel. The body on the Avanti is Fiberglass.

1. Do you ground back to the frame?
2. I suspect that the shorty antenna uses the metal roof as a ground plane, true?
3. If true, what is the implications for using the shorty, active antenna on the fiberglass?
4. What are the different model names/numbers for such an antenna, and what is YOUR OPINION of each?

URLs appreciated

thanks!
terry

2865. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:12:48 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9115m15iqhe74025ikjp6s1titp638oe7u@4ax.com>
Source record: 68462

On Fri, 28 Oct 2005 09:02:14 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>That is the point of my questions. They are veiled implications, not
>tests of knowledge. No one in your list of links, much less those
>I've read over the years knows the PRACTICAL implication of the "I"
>and "Q" channels. So, I may as well drop the other shoe.
>

Didn't Don Stoner describe a synchronous detector way back. I think I
remember reading an article in the mid sixties in "The Sideband
Handbook" or similar.

I was about 15 then, so a detector that had something like 17 bottles
in it seemed overkill when I was copying CW and SSB on an AM receiver
(ie diode detector) with BFO.

The appeal being an all-mode detector (including DSBSC), but
synchrounous detectors didn't seem to catch on in comms receivers,
well not until DSP detection... well I don't recall coming across them
anyway.

Owen
--

2866. Re: Tech Opinion Needed: Roof mounted AM/FM Auto Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:17:48 UTC
From: John Poulos <avanti@erols.com>
Message-ID: <I-6dnQCprNL4Gv_eRVn-tQ@comcast.com>
Source record: 68463
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.pro,alt.autos.studebaker,rec.radio.shortwave

You need to run a ground strap to the frame, but the lower mounting on
the Avanti's rear fender may hurt reception a bit as well as the poorer
ground plane.

tsterkel wrote:
> I have a VW Jetta with the "shorty" antenna. I am pleasantly impressed
> that it works better than the long steel type. The active (electronic)
> antenna is superior, and I get reception when no one else can.
>
> Here is my question for the techys:
>
> I am looking at getting an Avanti. The shorty antenna would look very
> rakish, and a nice replacement for that stock extended steel. The body
> on the Avanti is Fiberglass.
>
> 1. Do you ground back to the frame?
> 2. I suspect that the shorty antenna uses the metal roof as a ground
> plane, true?
> 3. If true, what is the implications for using the shorty, active
> antenna on the fiberglass?
> 4. What are the different model names/numbers for such an antenna, and
> what is YOUR OPINION of each?
>
> URLs appreciated
>
> thanks!
> terry
>

--
JP/Maryland
Studebaker On the Net http://stude.com
My Ebay items:http://www.stude.com/EBAY/
64 R2 4 speed Challenger (Plain Wrapper)
63 R2 4 speed GT Hawk
63 R1 Gt Hawk
62 Lark 2 door
61 Hawk
60? Hawk
55 custom HT
53 coupe rod.
53 Starlight

2867. Re: Tech Opinion Needed: Roof mounted AM/FM Auto Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:21:40 UTC
From: N8N <njnagel@hotmail.com>
Message-ID: <1130530900.538154.261300@g49g2000cwa.googlegroups.com>
Source record: 68464
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.pro,alt.autos.studebaker,rec.radio.shortwave

tsterkel wrote:
> I have a VW Jetta with the "shorty" antenna. I am pleasantly impressed
> that it works better than the long steel type. The active (electronic)
> antenna is superior, and I get reception when no one else can.
>
> Here is my question for the techys:
>
> I am looking at getting an Avanti. The shorty antenna would look very
> rakish, and a nice replacement for that stock extended steel. The body
> on the Avanti is Fiberglass.
>
> 1. Do you ground back to the frame?
> 2. I suspect that the shorty antenna uses the metal roof as a ground
> plane, true?
> 3. If true, what is the implications for using the shorty, active
> antenna on the fiberglass?
> 4. What are the different model names/numbers for such an antenna, and
> what is YOUR OPINION of each?
>
> URLs appreciated
>
> thanks!
> terry

I don't know the answer to your question, but I can tell you this

a) the VW antenna has a star washer under its mounting nut, so your assumption that it is grounded to the car body may be correct. If that is the case you will need to probably solder a lead to a large flat washer to replicate that setup.

b) the manufacturer of said antenna is "Fuba" which might help you in your search for information.

Personally, I haven't had much luck with Fubas, every car I've had that is so equipped has had zippy AM reception, as the amplifier section is already blown by the time I acquire the car. (I tend to buy my daily driver type vehicles fully depreciated.) Also, shit you not, squirrels apparently like to gnaw on them. Dunno if that's of concern to you or not, but replacement masts are available and just screw in. (take them off before going through a car wash, too...)

If you do choose to go forward with this and are looking for economical sources, I'd look to the VW aftermarket, such as parts4vws.com or similar.

Another thought would be to use the trunk mount antenna from a GT Hawk, it looks very Fuba-like but is "period correct." I don't know if there is any way you could rig Fuba guts to work with the Stude trunk mount unit, but if it could be worked out I might consider doing that for my '55 coupe.

Finally, I've even seen fender-mount Fubas; I know they were used on A3 cabrios. Might be able to adapt one to work in the stock location rather than having to drill a hole in the roof (yikes!) to mount the angled-back style.

You may also want to post to rec.autos.makers.vw.watercooled or to the Vortex...

good luck,

nate

2868. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:35:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tlt4m1tmr335m6voelckdrt3ln6j3t2d23@4ax.com>
Source record: 68465

On Fri, 28 Oct 2005 14:19:14 -0400, TRABEM <> wrote:
>With the current model of parallel loop...
>
>If my receiver was 2K input impedance (whether tuned input or not),
>could I connect it to my loop with a piece of 2000 ohm open wire line
>and expect the net (or loaded) Q to be around 100 (assuming a 2K
>impedance open wire line could be built and that my unloaded antenna Q
>was 200 to start with).
>
>Yes or No?

You have too many suppositions to give a straight answer. First,
there is no such thing as a 2000 Ohm open wire line. As for the gist
of the question:
Yes.

>With the current model of parallel loop...
>
>If I elected to use a buffer amp with megohms of input impedance,
>would I preserve the unloaded Q and end up with a net Q of about 200
>because I haven't loaded the loop?
>
>Yes or No?

Yes.

However, as Tom has pointed out separately, this may not be the
optimal solution.

>I believe my receiver is microvolt sensitive and that the loop will
>deliver a relatively good signal to the receiver even though the loop
>isn't terribly efficient. If I build selectivity into the front end of
>the receiver, do I really need high Q (200)??
>
>I think the answer is NO.....

Well, this is a good opportunity to examine that tumble down the slope
to the Q = 2 (caused by the severe loading of your proposed design).

The correlative to this is, how much selectivity do you need in a
field where stateside VLF is relatively rare? Further, by the action
of the strong filtering that usual attends the "I" and "Q" channel
processing, you could easily repair any shortfall.

However, back to that Q = 2. That still offers respectable (not
fantastic) selectivity against signals out at the bottom of the AM
band which is 10f (one decade) away.

>OK, I am with you with respect to the brain filtering out unwanted
>conversations to let you focus on your conversational partners distant
>voice. But, I thought traditional binaural receiver meant that the
>frequencies higher than a certain point went to one ear and that the
>all the frequencies lower than the same frequency went to the other
>ear. In this manner the listener has a feeling of 'depth' or
>'richness' that isn't present in a mono setup.

Binaural is what the fellows in white coats mean by listening with two
ears.

>This is interesting though.

And rarely reported for this style of detection. What a pity.

>Are you suggesting that the brain can also process the I/Q output
>streams and provide opposite sideband rejection as well as selective
>frequency and adaptive filtering?

The rejection is psychological, not actual. It is what I meant by
"mind-space." The vectors do not add up to zero, the mind simply
ignores the off-band content like you would at a party listening to
that cute office temp's whispers when your wife is yelling across the
room at you.

Listen to a recording of that same scenario in mono and you WILL hear
your wife!

The brain reassembles all delay/phase information content at the party
to sort out what to pay attention to. When that same information is
passed through a monaural channel, the phase information is lost and
everything competes equally lousy given the S/N ratio.

73's
Richard Clark, KB7QHC

2869. Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:37:07 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <TZv8f.11$0D4.5755@twister.southeast.rr.com>
Source record: 68468

Assume an incoming rf signal has exactly the same strength in all 3 dimensions i.e., completely omnidirectional. Question: would an antenna having gain capture any more signal power than a completely omnidirectional antenna with no gain?

Ron, W4TQT

2870. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:38:47 UTC
From: TRABEM <>
Message-ID: <8d15m155asn61no9a7c8di0k0ulr6863t2@4ax.com>
Source record: 68466

On 28 Oct 2005 09:44:00 -0700, "K7ITM" <k7itm@aol.com> wrote:

>OK, maybe you're beginning to understand. Q can be calculated as
>reactance (at resonance) divided by the effective series resistance, or
>as effective parallel resistance divided by reactance at resonance.
>For a loop where you know the series resistance, it's easiest to use
>that first relationship. If you put your 10 ohm receiver input in
>series with your 10 ohm reactance loop, you've ruined all that effort
>to get to a very low loop conductor resistance and obviated the need
>for high-Q capacitors. And we're all having a very hard time seeing
>how you will couple your 10-ohm receiver input to EITHER the
>parallel-tuned loop OR the series tuned loop, without having nasty
>consequences for your holy-grail Q.
>

It appears to me that a 10 ohm receiver input impedance is dead center
with regard to any loop configuration I could come up with...it
doesn't work with anything! It's easy to see now:>:

>You might think it's best to impedance match ("conjugate match") to
>your load, so you transfer the most power to the load. However, that
>may not be optimum from a system design standpoint. If you already
>have enough signal (along with atmospheric noise) that the receiver
>doesn't contribute significantly to the overall SNR, then you may be
>better off by intentionally mismatching so that the Q remains high, if
>that's important to you. (I personally think you've overrated it, but
>that's up to you to decide.) But even if you're wanting to get the
>lowest noise contribution from your electronics, the appropriate match
>is generally not the conjugate impedance match that results in highest
>power transfer. For example, an MMBT2222 NPN transistor running at
>about 100uA collector current in a common-emitter configuration with no
>feedback will have a low-frequency (e.g. 60kHz) input resistance around
>50kohms, but the optimal source resistance from a noise standpoint--the
>source resistance which will yield the lowest noise figure for the
>amplifier--will be about 2kohms. At optimal source resistance, you can
>get a noise figure well below 1dB from an MMBT2222--and from many other
>bipolars.
>

Is the MMBT2222 the same as a 2N2222, which I already have in my junk
box? Also have 3904's, maybe they are just as suitable?

Should I tune the output, or rely on a modest input tuned filter in
the front end and just do a no tune in and out common emitter?

Assuming a 50 ohm receiver input impedance, is it ok to take the
output across a 50 ohm emitter resistor?

>One reason that people like to use FET amplifiers across their
>"parallel-tuned" loops is that the amplifier input resistance is quite
>high, but (using appropriate FETs) the noise contribution of the
>amplifier is negligible. And with proper design, the distortion
>contribution can be considerably lower than the distortion of your
>detector. For high source impedances, JFETs can give noise figures
>that are a small fraction of a dB.
>

JFET's sound good too.

Richard, which type of buffer amp has a lower distortion and better
linearity in the presence of (potentially) large out of band signals?
If I do use a buffer to preserve the Q, it has to be 'clean' in order
to preserve the performance of the QSD receiver. Appreciate any
enlightenment along these lines.

I'm not opposed to using an op amp IF it provides cleaner output
signals and if the power consumption is manageable.

I must say it seems much cheaper (and probably more practical) to use
a buffer to preserve the existing Q than it is to build higher Q into
the loop...only to have it cut in half by the addition of a receiver
front end.

Regards,

T

2871. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 20:45:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mv25m1lvh2ivppbj844quogn64bkd40sae@4ax.com>
Source record: 68467

On Fri, 28 Oct 2005 20:12:48 GMT, Owen Duffy <owen@no.where> wrote:

>Didn't Don Stoner describe a synchronous detector way back. I think I
>remember reading an article in the mid sixties in "The Sideband
>Handbook" or similar.
>
>I was about 15 then, so a detector that had something like 17 bottles
>in it seemed overkill when I was copying CW and SSB on an AM receiver
>(ie diode detector) with BFO.
>
>The appeal being an all-mode detector (including DSBSC), but
>synchrounous detectors didn't seem to catch on in comms receivers,
>well not until DSP detection... well I don't recall coming across them
>anyway.

Hi Owen,

17 bottles indeed. That seems to strike a resonant chord in the ganglia because my construction was on a utility box of about 3" x 9" x 15" (not counting power supply requirements). We were working from a printed article certainly; and to confirm your recollection, there was a list of modes that could be detected that was long.

My perception of the resurgence of interest in synchronous detection (it seems to have many names) is that a considerable body of knowledge evaporated in the 70s and 80s to leave only fragments of what this detector was useful at.

73's
Richard Clark, KB7QHC

2872. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 21:10:04 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ei45m15290a00fquugrfk5eickm0vppb1u@4ax.com>
Source record: 68469

On Fri, 28 Oct 2005 13:35:19 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>The rejection is psychological, not actual. It is what I meant by
>"mind-space." The vectors do not add up to zero, the mind simply
>ignores the off-band content like you would at a party listening to
>that cute office temp's whispers when your wife is yelling across the
>room at you.
>
>Listen to a recording of that same scenario in mono and you WILL hear
>your wife!
>

I understand the Bell Labs explored this effect (which they referred
to as the "cocktail party effect") when exploring the nature of
conversation for the purposes of novel approaches to telephony
multiplexing.

I don't think they developed a technology solution to exploit the
cocktail party effect, but they did incorporate their knowledge of the
statistical / syllabic / sentence characteristics in their Time
Assignment Speech Interpolation (TASI) equipments, and TASI was quite
successful.

I think the term we would use for the cocktail party effect on a phone
channel is "a crossed line", and you may be right in that the loss of
spatial information because of the mono channel may have been the
reason it didn't work.
--

2873. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 21:29:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jf55m1duoa4l69of6sbnq99ct7nu44a7ap@4ax.com>
Source record: 68470

On Fri, 28 Oct 2005 21:10:04 GMT, Owen Duffy <owen@no.where> wrote:

>I don't think they developed a technology solution to exploit the
>cocktail party effect, but they did incorporate their knowledge of the
>statistical / syllabic / sentence characteristics in their Time
>Assignment Speech Interpolation (TASI) equipments, and TASI was quite
>successful.

Hi Owen,

This mimics Paul McCartney's use of phase mixing in his music in the late 70s. Earlier, I was using Reticon bucket-brigade chips to develop a frequency independent delay line such that I could mix input and output (much like the FIR/IIR topology of today's DSP technology, except I was doing it in analog rather than digital) to obtain a variable phase. I still have the breadbox sitting on the shelf. I was anticipating using this device to place "voices" in the stereo-space of program content that I was mixing for. The concept was much too cerebral for the producer who simply wanted matched levels.

73's
Richard Clark, KB7QHC

2874. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 21:50:35 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43629c72_4@newsfeed.slurp.net>
Source record: 68471

"Ron" <rmrippy@hotmail.com> wrote
> Assume an incoming rf signal has exactly the same strength in all 3
> dimensions i.e., completely omnidirectional. Question: would an antenna
> having gain capture any more signal power than a completely
> omnidirectional antenna with no gain?

Whatever the net field that arrives from the transmit antenna (whether or not the transmit antenna is omnidirectional), a receiving antenna having gain in the direction toward the transmit antenna will perform better than if it is omnidirectional.

Part of the improvement is due to its added gain, and part due to interference rejection from co- and adjacent-channel signals arriving from directions where the receiving antenna has less gain than an omni antenna.

RF

2875. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 22:11:14 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <vq75m1hph9j0uddmrkqsvg29u2ek6j0oue@4ax.com>
Source record: 68472

On Fri, 28 Oct 2005 20:37:07 GMT, Ron <rmrippy@hotmail.com> wrote:

>Assume an incoming rf signal has exactly the same strength in all 3
>dimensions i.e., completely omnidirectional. Question: would an
>antenna having gain capture any more signal power than a completely
>omnidirectional antenna with no gain?

Your scenario is a little confusing.

Here are my thoughts:

I we took the case of say, noise that was sourced from all around you (that is not to mean an isotropic transmitter antenna), a directional antenna would receive about the same power as an isotropic antenna, and the difference would be due to antenna losses, ground reflection losses (if relevant).

Galactic noise on HF might nearly fit into that scenario (or perhaps more topically, neighbourhood BPL interference), and I would expect that a 8dB yagi would receive similar power to a half wave dipole. Galactic noise is a little lower at the galactic poles, so in sweeping the yagi you may observe a very small directional effect. Further, ground reflection and different antenna + feed losses will introduce small differences.

If at the end of that, you are trying to rationalise why a beam is better than a dipole, although the beam does not receive more or less of the "directionless" noise, it does increase the receive power from noise, interference and signal from the main beam direction and reduce receive power from noise and interference from away from the main beam.

Does that hang together?

Owen
--

2876. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 22:33:23 UTC
From: TRABEM <>
Message-ID: <d095m1ppkqianneb2kjrf4m9is79h0iuel@4ax.com>
Source record: 68473

>
>>I believe my receiver is microvolt sensitive and that the loop will
>>deliver a relatively good signal to the receiver even though the loop
>>isn't terribly efficient. If I build selectivity into the front end of
>>the receiver, do I really need high Q (200)??
>>
>>I think the answer is NO.....
>
>Well, this is a good opportunity to examine that tumble down the slope
>to the Q = 2 (caused by the severe loading of your proposed design).
>
>The correlative to this is, how much selectivity do you need in a
>field where stateside VLF is relatively rare? Further, by the action
>of the strong filtering that usual attends the "I" and "Q" channel
>processing, you could easily repair any shortfall.
>
>However, back to that Q = 2. That still offers respectable (not
>fantastic) selectivity against signals out at the bottom of the AM
>band which is 10f (one decade) away.
>

OK, I'm not sure how we got back to the Q=2 scenario. I think my
proposed design is the old series tuned loop, which I have firmly
rejected.

With no tuning in the front end, the Q of the receiver would approach
1.......Yes, I understand that.

I understand the answer you gave initially, which was 'I think the
answer is NO....'.

I understand the degree of protection against signals in the bottom of
the bc band.

When you said "Well, this is a good opportunity to examine
that tumble down the slope to the Q = 2 (caused by the severe
loading of your proposed design)".....................did you mean
to say or to infer '(caused by the severe loading of your old (now
defunct) series resonant loop design"???

All is in agreement above EXCEPT in not sure why the reference to the
old design.

Thanks again.

T

2877. Re: Tech Opinion Needed: Roof mounted AM/FM Auto Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 22:40:21 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-7D422C.15402028102005@newsclstr02.news.prodigy.com>
Source record: 68474
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.pro,alt.autos.studebaker,rec.radio.shortwave

In article <1130530173.541787.323700@g47g2000cwa.googlegroups.com>,
"tsterkel" <google@sterkel.org> wrote:

> I have a VW Jetta with the "shorty" antenna. I am pleasantly impressed
> that it works better than the long steel type. The active (electronic)
> antenna is superior, and I get reception when no one else can.
>
> Here is my question for the techys:
>
> I am looking at getting an Avanti. The shorty antenna would look very
> rakish, and a nice replacement for that stock extended steel. The body
> on the Avanti is Fiberglass.
>
> 1. Do you ground back to the frame?
> 2. I suspect that the shorty antenna uses the metal roof as a ground
> plane, true?
> 3. If true, what is the implications for using the shorty, active
> antenna on the fiberglass?
> 4. What are the different model names/numbers for such an antenna, and
> what is YOUR OPINION of each?

Concerning #1, 2 and 3:
Chances are it needs a ground plane of some sort around it. You could
make a ground plane for it by using self sticking copper foil on the
inside of the fiberglass panel the antenna is mounted on. The foil
should extend some distance from the edge of the mounting hole for the
antenna in all directions and then use a metal washer inside the panel
to mount the antenna with, which will make contact with foil.

--
Telamon
Ventura, California

2878. Re: Tech Opinion Needed: Roof mounted AM/FM Auto Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 22:57:27 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <r1y8f.160$xp1.64@trnddc01>
Source record: 68475
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.pro,alt.autos.studebaker,rec.radio.shortwave

"tsterkel" <google@sterkel.org> wrote in message
news:1130530173.541787.323700@g47g2000cwa.googlegroups.com...
>I have a VW Jetta with the "shorty" antenna. I am pleasantly impressed
> that it works better than the long steel type. The active (electronic)
> antenna is superior, and I get reception when no one else can.
>
> Here is my question for the techys:
>
> I am looking at getting an Avanti. The shorty antenna would look very
> rakish, and a nice replacement for that stock extended steel. The body
> on the Avanti is Fiberglass.
>
> 1. Do you ground back to the frame?
> 2. I suspect that the shorty antenna uses the metal roof as a ground
> plane, true?
> 3. If true, what is the implications for using the shorty, active
> antenna on the fiberglass?
> 4. What are the different model names/numbers for such an antenna, and
> what is YOUR OPINION of each?
>
> URLs appreciated
>
> thanks!
> terry

Hi Terry

I find it difficult to think of the whip for AM radio reception on a car
as 'the antenna'. It is more like a probe of the currents flowing on the
outer surface of the car. The "shortys" on cars with amplifiers mounted
at their base certainly arent antennas.
A plastic car provides the Shorty with an environment thats considerably
different from that anticipated by the original Shorty design.
A strap to the chassis might be a solution for installing a VW amplified
antenna. But,would you consider a radio intended for a Corvette??

Jerry

2879. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 23:51:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11m5ecibpvtlm5d@corp.supernews.com>
Source record: 68276

Ron wrote:
> Assume an incoming rf signal has exactly the same strength in all 3
> dimensions i.e., completely omnidirectional. Question: would an antenna
> having gain capture any more signal power than a completely
> omnidirectional antenna with no gain?
>
> Ron, W4TQT

Yes.

The amount of signal "captured" from a given direction is exactly proportional to the gain in that direction. "Capture area", "effective aperture" and "gain" are simply different ways of expressing the same thing, as long as perfect efficiency is assumed; if you know any one you know the other two.

Roy Lewallen, W7EL

2880. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-28 23:57:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ZVy8f.10138$Zv5.7646@newssvr25.news.prodigy.net>
Source record: 68277

Ron wrote:
> Assume an incoming rf signal has exactly the same strength in all 3
> dimensions i.e., completely omnidirectional. Question: would an antenna
> having gain capture any more signal power than a completely
> omnidirectional antenna with no gain?

Does a vertical Yagi receive more signal than a vertical monopole?
--
73, Cecil http://www.qsl.net/w5dxp

2881. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 00:03:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ijd5m19jgqv8avfu46g95394eoqo289itn@4ax.com>
Source record: 68278

On Fri, 28 Oct 2005 18:33:23 -0400, TRABEM <> wrote:

>When you said "Well, this is a good opportunity to examine
>that tumble down the slope to the Q = 2 (caused by the severe
>loading of your proposed design)".....................did you mean
>to say or to infer '(caused by the severe loading of your old (now
>defunct) series resonant loop design"???

Yes
of course.

You have asked a number of questions outside of this old (now
defunct) design, but you haven't, as far as I can tell, formalized a
replacement.

The ancillary point that I've made is that the original could work.
However, you've never stated any operating specification to test that
against. I've offered that all components need to be scrutinized in
the face of your goal. We saw where that lead.

You've only specified your desire for High Q capacitors (properly, low
D capacitors). I offered that ESRs vary widely and could easily
derail your goal. The presence of an ESR equal to the 0.06 Ohm of the
loop is very well within being guaranteed. It still is. Reg
dismissed this as inconsequential. So be it, but being that it is
easily remedied through selection, then why toss away half your Q to
casual indifference?

What Reg actually meant, and he has a hard time with that given he can
often be found on both sides of an argument, is that such loss may not
matter. There I agree, but this does not advance the topic of High Q
Caps for VLF Loop Antenna when they can be obtained.

73's
Richard Clark, KB7QHC

2882. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 00:21:02 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <Ofz8f.22$0D4.18390@twister.southeast.rr.com>
Source record: 68279

Maybe I should restate my question. Assume a receiving antenna is in the center of a sphere and the received signal is coming in equal amounts from all points on the surface of the sphere. Which receiving antenna would capture more power, an omni or a high gain beam? There are no noise and no losses.

Ron

Ron wrote:

> Assume an incoming rf signal has exactly the same strength in all 3
> dimensions i.e., completely omnidirectional. Question: would an antenna
> having gain capture any more signal power than a completely
> omnidirectional antenna with no gain?
>
> Ron, W4TQT
>

2883. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 01:03:06 UTC
From: TRABEM <>
Message-ID: <78i5m1d3jdivls07aate2mumg21jf79jpp@4ax.com>
Source record: 68280

On Fri, 28 Oct 2005 17:03:55 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 28 Oct 2005 18:33:23 -0400, TRABEM <> wrote:
>
>>When you said "Well, this is a good opportunity to examine
>>that tumble down the slope to the Q = 2 (caused by the severe
>>loading of your proposed design)".....................did you mean
>>to say or to infer '(caused by the severe loading of your old (now
>>defunct) series resonant loop design"???
>
> Yes
>of course.
>

Agreed!

Just wanted to be sure I didn't miss something, so I asked.

And, your're right, I haven't formulated a replacement. I bought a 250 foot poll of cable, and it has not been cut. So, it's still in one piece and returnable if I decide not to use it.

I was just pondering the alternative of allowing the front end to be untuned. The receiver is susceptible to harmonics, each harmonic of the tuned frequency is down 6 db though. Since the loop would be resonant somewhere on HF, it is probably a bad idea to leave the front end untuned as HF can be unpredictable. so, I am thinking I need some front end selectivity.

Reg gave me an example of what he might do. And his antenna came out much cheaper to build and probably easier to put up.

I'm also thinking about the method of feeding the signal to the house. It will be around 70 feet from the house, so 90 feet of cable of some sort is needed. I can easily go 700 feet in any of 3 directions, but there is probably no practical need to go that far out into the woods. Since the house is a noisy place for LF and VLF, I have to be concerned about how I feed the antenna. I also think I'd like to have it fed with balanced line to minimize the possibility of the feed line acting as an antenna. If a preamp is used, I have to feed power to the antenna as well, so I will have to wind a common mode filter to do that job as well. So, I got a lot to think about.

Although I haven't formulated a plan for a replacement antenna, the series loop is 99.99 percent history.

So, I am thinking about it.

I have a reading session planned for the late night here so I can reinforce the lesson(s) you and Reg have taught me. And, will probably work on the actual antenna design tomorrow. My caps are on order from Mouser, should be here next week

There are a few preamp designs around the web, but none of them seems very well thought out...although they might be well planned. It's possible they are solidly designed, but that the authors haven't shared all the gory details in their web presentation(s).

Thanks again. I'll keep you posted if you like.....I'd appreciate sending up a red flag if I attempt to commit additional acts of stupidity with regard to whatever I come up with for a design.

Regards,

T

2884. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 01:03:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v8i5m19tqijp4l11jetl871usp1e1oh0ps@4ax.com>
Source record: 68281

On Sat, 29 Oct 2005 00:21:02 GMT, Ron <rmrippy@hotmail.com> wrote:

>Which receiving antenna would capture more power, an omni or a high gain beam?

An isotropic antenna would be the best, as the field described came
from the same emitter (such a field would be impossible otherwise).
Stepping out of this enigma (that the emitter and detector are
different, and the field which could only be generated by an isotropic
would then suddenly turn and come back) would answer the omni.

73's
Richard Clark, KB7QHC

2885. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 01:27:10 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11m5juvgvol5l3d@corp.supernews.com>
Source record: 68282

To emphasize one idea that Richard Clark has presented:

Here is a direct quote from page 6-1 (section 6.2) of the chapter on loop antennas in the (first edition) Antenna Engineering Handbook edited by Jasik (1961):

"The radiation pattern of a small loop is identical with that of a small dipole oriented normal to the plane of the loop with the E and H fields interchanged."

The use of "magnetic" or other buzz words notwithstanding, a small loop is the dual of a small dipole. Practical considerations might cause one to select a small loop over a small dipole.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

2886. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 05:10:34 UTC
From: TRABEM <>
Message-ID: <qr06m1tqtgjln2p4q8uivuo7fm0qnci0mt@4ax.com>
Source record: 68283

Hi Jim,

I ran some estimates earlier of a much smaller multiturn look with
smaller wire. The Q held up much better than I expected and I'm also
considering smaller diameter multiturn loops.

Appreciate the quotes.

Regards,

T

<jcm@power-net.net> wrote:

>To emphasize one idea that Richard Clark has presented:
>
>Here is a direct quote from page 6-1 (section 6.2) of the chapter on loop
>antennas in the (first edition) Antenna Engineering Handbook edited by Jasik
>(1961):
>
>"The radiation pattern of a small loop is identical with that of a small
>dipole oriented normal to the plane of the loop with the E and H fields
>interchanged."
>
>The use of "magnetic" or other buzz words notwithstanding, a small loop is
>the dual of a small dipole. Practical considerations might cause one to
>select a small loop over a small dipole.
>
> 73 Mac N8TT

2887. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 06:45:50 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <yUE8f.9786$tV6.7409@newssvr27.news.prodigy.net>
Source record: 68284

Ron wrote:
> Maybe I should restate my question. Assume a receiving antenna is in the
> center of a sphere and the received signal is coming in equal amounts
> from all points on the surface of the sphere.

Are you trying to receive the background radiation left over
from the big bang? That's the only source outside of the
sphere that I know of that can accomplish your boundary
condition.
--
73, Cecil http://www.qsl.net/w5dxp

2888. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 07:55:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <djv9sr$4ut$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68285

<TRABEM> wrote

> I ran some estimates earlier of a much smaller multiturn look with
> smaller wire. The Q held up much better than I expected and I'm also
> considering smaller diameter multiturn loops.
>
==========

With multi-turn loops don't be tempted to neglect wire diameter.

And it's well worth while spacing the wires by 1 or 2 wire diameters.
Spaced wires reduce RF proximity-effect loss and increase Q.

Neatness of construction is of little consequence. Wires need be
supported only at the corners of the loop. Keep wires taut enough to
prevent them flopping about in the wind.

Electrically isolate the main loop. Don't connect it to anything. It
will then maintain its good directional properties including its sharp
null.

Don't even think about screening or shielding the loop. It will serve
no useful electrical purpose. It will cause proximity effect to
reappear.

Connect the smaller coupling loop to the unbalanced receiver via a
thin twisted pair of whatever length you like without fear of it
picking up any signal of consequence.

Remember sensitivity depends ONLY on the enclosed loop area and NOT on
the number of turns. So don't be tempted to reduce loop size just
because it is multi-turned. Big signals never did anybody any harm.
Whereas . . . . . !

I assume your QTH is not adjacent to WWV's antenna. ;o)

Reg, G4FGQ.

2889. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 08:32:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11m6ctlaj9568f9@corp.supernews.com>
Source record: 68286

Ron wrote:
> Maybe I should restate my question. Assume a receiving antenna is in the
> center of a sphere and the received signal is coming in equal amounts
> from all points on the surface of the sphere. Which receiving antenna
> would capture more power, an omni or a high gain beam? There are no
> noise and no losses.

They'll intercept equal amounts, assuming both are lossless. The directional antenna will intercept a larger fraction than the isotropic antenna in the directions it favors, and less in others. The total will be be the same.

In reverse, this is equivalent to calculating the average gain of the antennas, which is the same for all lossless antennas.

Roy Lewallen, W7EL

2890. Re: Tech Opinion Needed: Roof mounted AM/FM Auto Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 08:59:17 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <FRG8f.23437$65.11239@newsfe6-win.ntli.net>
Source record: 68287
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.pro,alt.autos.studebaker,rec.radio.shortwave

You only need a ground plane if the aerial transmits - for a receive
only you can kust mount it, end of story.

It is NOT a good idea to connect an earth bond at the aerial end as
the aerial cable and that bond might provide a lower resistance feed
to other vehicle electrics than the designed route and end up causing
severe interference.

--
Woody

harrogate2 at ntlworld dot com

2891. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 12:26:34 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <_TJ8f.87$0D4.47753@twister.southeast.rr.com>
Source record: 68288

No, I'm just trying to understand antenna gain.

Ron

Cecil Moore wrote:
> Ron wrote:
>
>> Maybe I should restate my question. Assume a receiving antenna is in
>> the center of a sphere and the received signal is coming in equal
>> amounts from all points on the surface of the sphere.
>
> Are you trying to receive the background radiation left over
> from the big bang? That's the only source outside of the
> sphere that I know of that can accomplish your boundary
> condition.

2892. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 12:53:52 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <c6SdnfEPguiY7_7eRVn-qA@comcast.com>
Source record: 68289

I think Cecil was being facetious :-)

Ron wrote:
> No, I'm just trying to understand antenna gain.
>
> Ron
>
> Cecil Moore wrote:
>
>> Ron wrote:
>>
>>> Maybe I should restate my question. Assume a receiving antenna is in
>>> the center of a sphere and the received signal is coming in equal
>>> amounts from all points on the surface of the sphere.
>>
>>
>> Are you trying to receive the background radiation left over
>> from the big bang? That's the only source outside of the
>> sphere that I know of that can accomplish your boundary
>> condition.
>
>

2893. Re: Tech Opinion Needed: Roof mounted AM/FM Auto Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 13:27:03 UTC
From: John Poulos <avanti@erols.com>
Message-ID: <XoydndVp8tY95f7eRVn-hA@comcast.com>
Source record: 68290
Cross-posted to: rec.radio.amateur.antenna,rec.audio.car,rec.audio.pro,alt.autos.studebaker,rec.radio.shortwave

Not true, here's a GM service letter about the fiberglass bodied Vette:

"Antenna Ground Plane Upgrade

GM issued a service bulletin for an improvement to the radio antenna. It
can enhance the quality of FM radio reception. This is applicable for
ï¿½90 through ï¿½91 Corvettes. Some customers have been very impressed with
the results. The results are dependent on the quality your local radio
signals and the quality of the installation. High quality installations
are performed only if the installation is exactly as specified by the
technical bulletin. The improvement was incorporated into factory
production in the ï¿½92 model year.

The method is to create a ground plane for the antenna. Four wires that
are ï¿½ wavelength long join together to form an electrical ground field
at radio frequencies. The C4 Corvette has a narrow steel band located
under the antenna. It is designed to function as a ground plane, but its
area is too small for optimal performance. Other cars donï¿½t have this
difficulty because metal exterior panels provide the ground plane."

harrogate2 wrote:
> You only need a ground plane if the aerial transmits - for a receive
> only you can kust mount it, end of story.
>
> It is NOT a good idea to connect an earth bond at the aerial end as
> the aerial cable and that bond might provide a lower resistance feed
> to other vehicle electrics than the designed route and end up causing
> severe interference.
>
>
> --
> Woody
>
> harrogate2 at ntlworld dot com
>
>

--
JP/Maryland
Studebaker On the Net http://stude.com
My Ebay items:http://www.stude.com/EBAY/
64 R2 4 speed Challenger (Plain Wrapper)
63 R2 4 speed GT Hawk
63 R1 Gt Hawk
62 Lark 2 door

61 Hawk
60? Hawk
55 custom HT
53 coupe rod.
53 Starlight

2894. Re: antenna wire cleanup question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 15:19:11 UTC
From: dplatt@radagast.org
Message-ID: <11m74nfsl0k2l20@corp.supernews.com>
Source record: 68291

> vinegar and salt should make quick work of it... neutralize with
> baking soda or just rinse really well.

Another excellent tarnish-remover for copper, brass, and silver can be made from baking soda and ammonia water, both available from any decent supermarket. Takes off the tarnished surface almost instantly, leaving clean bare metal, and rinses clean with water.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2895. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 15:37:54 UTC
From: richardharrison@webtv.net
Message-ID: <8129-43639752-515@storefull-3253.bay.webtv.net>
Source record: 68293

Ron, W4TQT wrote:
"Question: would an antenna having gain capture any more signal than a completely omnidirectional antenna with no gain?"

Directive gain depends entirely on the distribution of radiated power. See 1955 Terman page 870. The antenna gain figure is identical for transmitting or receiving. To take full advantage of gain in a line of sight path, the electric vector must be parallel with that received. Cross polarization can cause up to almost 30 dB signal loss. There are directional antennas that receive vertical and horizontal polarizations equally well.

Yes. An antenna with gain captures more signal than an antenna with no gain when both are in their best positions and equally distant fron the same signal source.

Best regards, Richard Harrison, KB5WZI

2896. Re: Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 15:41:09 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <pKM8f.89040$lo.23227@clgrps13>
Source record: 68292

```
.........................
> >> If I calculate the gain with the formula:
> >>
> >> 4 * Pi * r^2 * |E|^2
> >> Gain = ----------------------
> >> P_in * 2 * 120 * Pi
> >>
> >> by using the E-Field magnitude values from nec2's output I get also
> >> those very high values. (?)
>
> > PS, also confused by your formula. Which Value of E are you using? Are
you
> The formula should be correct:
> I just use the magnitude value of the E Field. The intensitiy
> W_rad is then 0.5 * |E|^2 / Z_w (E and H are in phase and
> orthogonal in the far field)
>
> The radiation density U is then r^2 * W_rad (Unit: Watt per solid angle)
>
> The radiation density U_0 of an isotropic radiator with a total radiated
> power P_rad is: P_rad / (4 * Pi).
>
> The gain is then U/U_0 (or in dBi: 10*log(U/U_0) ).

Ok, now I understand.

> > trying to calculate the "Total radiated power" (TRP)? If so you need to
> > integrate the power density over a spherical region. The calculation is
> Yes, but nec2 shows the total radiated power in its output.

Have checked "Power Budget" output, and confirm that using it for TRP is
valid in free space only.

> No thats no true. In the output file I can see E_phi as well as E_theta
for
> every combination of phi and theta (for every frequency).

I agree, my problem is that NEC-Win Pro cannot use this information for its
graphical utilities.

> I use the programm Xnecview to view the pattern and it has problems if you
> don't have points over the full sphere.

Ok, I see that Xnecview will only run under Linux/Unix OS. My version of
NEC only runs in Windows.
```

> > is that I normally do not use gain averaging. Also using 1 degree
> The average gain (over the full sphere) should probably be 1 (or 0 dBi).
> I get 0.991.

Regards,

Frank

2897. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 16:56:10 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <MQN8f.5728$ZP1.1737@dukeread11>
Source record: 68294

Dale Parfitt wrote:

>"Chris W" <1qazse4@cox.net> wrote in message
>news:ku88f.1019$ZP1.519@dukeread11...
>
>
>>Dale Parfitt wrote:
>>
>>
>>
>>>>PS I would like to build 2 of these one is for 2.4ghz wireless network
>>>>
>>>>
>>>>and one is 432 mhz amateur band EME and or satellite work. So the 2.4ghz
>>>>version will likely never see more than 100 mW but could see as much as 1
>>>>watt. The 432 mhz version could see as much as 1000 watts, but if I did
>>>>that it would be to an array of 4 of them so I guess each one would only
>>>>see 250 watts?
>>>>
>>>>--
>>>>Chris W
>>>>
>>>>
>>>>
>>>>
>>>EME on 432 is linearly polarized (although switching polarities to make
>>>up for Faraday rotation can be advantageous) - you'll be throwing away a
>>>huge 3dB, have higher sidelobes than a well designed Yagi (nullifying the
>>>low sky temp advantage of deep space) and less gain per boom length than
>>>a good Yagi- all in all, a dismal choice for EME.
>>>
>>>Dale W4OP
>>>
>>>
>>>
>>>
>>The calculation in the ARRL Antenna book say that a 12 foot boom with a
>>circumference of 1.33 wavelengths will give me a 19.9 dbi gain this should
>>make up for the 3 db loss I think. I haven't seen a yagi that gives that
>>much gain in with a 12 foot boom. The book also says that the side lobe
>>problem can be significantly reduced by creating an array of 4 helical
>>antennas. That should up the gain to 25.9 db. That's pretty good for EME
>>isn't it? Take it to 16 and you get over 30 db gain. And the only need
>>to be spaced at 1.5 wavelengths, that's only 3.4 feet.

>>
>>--
>>Chris W
>>
>>
>
>The closest optimized Yagi I found was a K1FO on a 14' boom- 17.9dBi which
>compares quite well with your 19.9dBi on a 12' boom once we adjust for the
>polarization loss making the helical 16.9dBi linear for the helix vs. 17.9dB
>for the K1FO My experience with EME is at 23cM where we use dishes- but I
>can tell you that 1dB is to kill for..
>The circularity could be an advantage as it would be insensitive to Faraday.
>Another advantage is that they are non critical to build- at least from a
>gain standpoint. But I think the real issue will be weight and weight
>ditribution. Between the helical tubing, non conductive boom and the
>reflector screen a helix is going to be a clydesdale compared to a Yagi.
>Another problem might be the necessity to mount the array from behind the
>reflector- that's going to be quite a moment arm.
>
>Bottom line is, 432 MHz EME is well explored- I am not aware of the use of
>helices for EME there- although, again I am not active on 432 EME. If they
>are not being use, there's probably a reason.
>
>Dale W4OP
>
>

I guess unless both stations were using a helical antenna, an array of yagies would be better. Since the helical antennas would have to have opposite polarization, that would be pretty inconvenient unless both stations had an array of RH for TX and LH for RX, in which case you would have to build twice as many antennas.

I did have an idea for mounting them though. I was going to find something to use as a form to wrap the helix around and then cover it with fiberglass, making a big fiberglass tube, then remove the mold from the inside. I think that would make for a pretty strong and lite structure. I would then make some kind of fiberglass structure to mount the antenna at it's CG. Of course such an antenna would have a pretty high wind load, so you would need a way to easily take it down in case of high winds.

--
Chris W

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Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

2898. Re: 2.4 gHz transmitter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 17:11:48 UTC
From: "Mr. Man with the Master Plan" <fist@your.face.net>
Message-ID: <64O8f.17985$rE2.17565@fe10.lga>
Source record: 68295

radioshack

and put it up really really high!!!

-MMWTMP

"oldcrow" <oldcrow1@pobox.com> wrote in message
news:1129872363.320801.40130@g49g2000cwa.googlegroups.com...
> Hi:
>
> Can anyone put me on as to where I may purchase a small 2.4 gHz
> transmitter for sending video from about 1/2 mile.
>
> Bob
>

2899. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 17:18:09 UTC
From: TRABEM <>
Message-ID: <6ab7m1hulck0nf2oomgbc5gbv07n4j8lis@4ax.com>
Source record: 68296

Hi REg,

Looks like I have a plan for a new loop.

New loop design:

I have a plan for a more appropriately dimensioned loop.

At 60 KHz,

4 turns of 2 mm diameter wire, spaced 4 wire diameters apart.
2 meters per side
123 uH, 60,000 pF to resonate
4.7K across the loop.
300 ohm feed impedance at single turn loop feed
Q (unloaded) = 101

This allows me to feed the loop with 300 ohm balanced line, which I
can easily transform to 50 ohms at the receiver.

I'm not sure what the impedance of twisted wire is though, which would
be even cheaper than 300 ohm twin lead.

Also, my Q will be slightly higher as I can stagger the turns some, so
that the wires won't run parallel to each other for the entire length.

I was never quite thrilled with a big loop threaded through the trees
and supported in that manner, it makes it hard to rotate:>: Being able
to rotate the loop is a good thing:>:

Is the 1 turn pick up loop critical???

And, I have another question.......

I used rj2loop3 and ran the same numbers as above, except that I
separated the wires by 10 wire diameters instead of 4.

Instead of seeing the Q improve, it was reduced (from 101) to 93. I
expected the Q to improve, not get worse. It seems odd to me. Is there
a good reason for this?? Ran it with a very low number and the Q also
get worse. So there appears to be an 'optimal' wire winding pitch for
optimizing Q?

Byr the way, nice software package, thank you for it's use!

>I assume your QTH is not adjacent to WWV's antenna. ;o)

Temporarily, it is on the East Coast of the US. But, at home it is
high in the mountains in Northern EU (with no commercial power for

miles around).

Thanks,

T

2900. Re: A few Helical Antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 17:34:10 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <moO8f.12478$ti.2664@trnddc02>
Source record: 68298

```
"Chris W" <1qazse4@cox.net> wrote in message
news:MQN8f.5728$ZP1.1737@dukeread11...
> Dale Parfitt wrote:
>
>>"Chris W" <1qazse4@cox.net> wrote in message
>>news:ku88f.1019$ZP1.519@dukeread11...
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>>>Dale Parfitt wrote:
>>>
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>>>>PS I would like to build 2 of these one is for 2.4ghz wireless network
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>>>>and one is 432 mhz amateur band EME and or satellite work. So the
>>>>2.4ghz version will likely never see more than 100 mW but could see as
>>>>much as 1 watt. The 432 mhz version could see as much as 1000 watts,
>>>>but if I did that it would be to an array of 4 of them so I guess each
>>>>one would only see 250 watts?
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>>>>Chris W
>>>>
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>>>>up for Faraday rotation can be advantageous) - you'll be throwing away a
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>>>>the low sky temp advantage of deep space) and less gain per boom length
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>>>>Dale W4OP
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>>>gives that much gain in with a 12 foot boom. The book also says that the
>>>side lobe problem can be significantly reduced by creating an array of 4
>>>helical antennas. That should up the gain to 25.9 db. That's pretty
>>>good for EME isn't it? Take it to 16 and you get over 30 db gain. And
>>>the only need to be spaced at 1.5 wavelengths, that's only 3.4 feet.
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>>>--
>>>Chris W
```

>>>
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>>The closest optimized Yagi I found was a K1FO on a 14' boom- 17.9dBi
>>which compares quite well with your 19.9dBi on a 12' boom once we adjust
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>>vs. 17.9dB for the K1FO My experience with EME is at 23cM where we use
>>dishes- but I can tell you that 1dB is to kill for..
>>The circularity could be an advantage as it would be insensitive to
>>Faraday. Another advantage is that they are non critical to build- at
>>least from a gain standpoint. But I think the real issue will be weight
>>and weight ditribution. Between the helical tubing, non conductive boom
>>and the reflector screen a helix is going to be a clydesdale compared to a
>>Yagi.
>>Another problem might be the necessity to mount the array from behind the
>>reflector- that's going to be quite a moment arm.
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>>Bottom line is, 432 MHz EME is well explored- I am not aware of the use of
>>helices for EME there- although, again I am not active on 432 EME. If
>>they are not being use, there's probably a reason.
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>>Dale W4OP
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> I guess unless both stations were using a helical antenna, an array of
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> stations had an array of RH for TX and LH for RX, in which case you would
> have to build twice as many antennas.
>
> I did have an idea for mounting them though. I was going to find
> something to use as a form to wrap the helix around and then cover it with
> fiberglass, making a big fiberglass tube, then remove the mold from the
> inside. I think that would make for a pretty strong and lite structure. I
> would then make some kind of fiberglass structure to mount the antenna at
> it's CG. Of course such an antenna would have a pretty high wind load, so
> you would need a way to easily take it down in case of high winds.
>
> --
> Chris W
>
Hi Chris,
You're right on the polarity sense- it gets reversed upon lunar surface
reflection. At 23cM we are using a scalar or septum horns that have 2
feedpoints- CW and CCW- much easier to to do with a horn as it only involves
a 2nd orthogonal probe. A set of 4 capacity stubs arranged longitudinally
along the guide generates the 2 senses.
If you are seriously interested in EME- take alook at 23cM. Gain is easy to
come by in the form of dishes; LNA NF are now in the <0.2dB and power from
the GS series tubes and Mistubishi modules are stable and quite easy. Not
unusual to hear SSB stations ragchewing on activity or contest weekends, no
Faraday issues and lots of big gun activity.

Dale W4OP

2901. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 18:06:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <nSO8f.4712$D13.2227@newssvr11.news.prodigy.com>
Source record: 68297

Richard Harrison wrote:
> Yes. An antenna with gain captures more signal than an antenna with no
> gain when both are in their best positions and equally distant fron the
> same signal source.

This thread has got me wondering. Which antenna would capture
more Big Bang Background Radiation?
--
73, Cecil http://www.qsl.net/w5dxp

2902. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 20:38:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dk0mjv$6ep$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68299

Trabem,

I will try to answer your remaining questions in the order at which they occur.

There must be a compromise between size of loop, receiving sensitivity, and the ability to rotate it. Only you can decide. I can suggest only that you bias your opinion towards size matters more than the ability to rotate the thing. Just make sure that the broadside null does not correspond to the direction from which your favourite transmissions come from. The receiving lobes in the polar diagram are very broad. The polar diagram is a figure of 8, like a pair of touching circles. You won't need Eznec.

The impedance of the line from the coupling loop to the receiver doesn't matter two hoots. At 60 KHz it is just a pair of wires. A twisted pair of wires has an impedance of very roughly 130 ohms. But at 60 KHz the line length is so short in terms of wavelengths it doesn't matter what its impedance is. The coupling loop can be considered to be directly connected to the 50-ohm receiver.

And even with an extremely long line any impedance mismatch loss will be negligible. So forget about 300-ohm balanced line and just use a simple not-tightly-twisted pair. NO IMPEDANCE MATCHING REQUIRED at either end. The size of the small coupling loop inside the main loop matches 50 ohms to a 50-ohm receiver. So ideally the line to the receiver could be 50-ohm coax. But, as I say, it doesn't matter.

The size and shape of the small coupling loop is not critical. It can be circular or square. Theoretically, to match the loop to a 50-ohm receiver, it should have an area about 1/25th of the main loop area. To simplify construction the coupling loop can be made self-supporting.

Electrically, the thickness of the wire in the coupling loop need be no greater than the wire in the line which connects it to the receiver. The only wire diameter which matters is that of the main loop itself.

As the spacing between wires on the main loop increases the RF proximity loss in the loop conductor (related to skin effect) decreases and Q increases. But other things happen when the width of the loop increases with spacing. For example, loop inductance decreases. We are not comparing like with like. And in any case maximisation of Q is not the primary objective. There are other things to be considered.

For example, if you want to increase Q then don't bother to increase spacing between turns, just increase wire diameter.

But with given wire diameter, the optimum spacing between the wire centres of adjacent turns, to maximise Q, is very crudely about twice the wire diameter. But, as I say, it is very non-critical and you might be better off by increasing wire diameter as it simplifies loop construction. Then, once again, you will have the option of increasing spacing between turns. Compromises are never ending. ;o)

Whatever you end up with I can see from your enthusiasm you are enjoying your efforts and will continue to do so.

Reg, G4FGQ.

==========

<TRABEM> wrote in message
news:6ab7m1hulck0nf2oomgbc5gbv07n4j8lis@4ax.com...
> Hi REg,
>
> Looks like I have a plan for a new loop.
>
> New loop design:
>
> I have a plan for a more appropriately dimensioned loop.
>
> At 60 KHz,
>
> 4 turns of 2 mm diameter wire, spaced 4 wire diameters apart.
> 2 meters per side
> 123 uH, 60,000 pF to resonate
> 4.7K across the loop.
> 300 ohm feed impedance at single turn loop feed
> Q (unloaded) = 101
>
> This allows me to feed the loop with 300 ohm balanced line, which I
> can easily transform to 50 ohms at the receiver.
>
> I'm not sure what the impedance of twisted wire is though, which
would
> be even cheaper than 300 ohm twin lead.
>
> Also, my Q will be slightly higher as I can stagger the turns some,
so
> that the wires won't run parallel to each other for the entire
length.
>
> I was never quite thrilled with a big loop threaded through the
trees
> and supported in that manner, it makes it hard to rotate:>: Being
able

> to rotate the loop is a good thing:>:
>
> Is the 1 turn pick up loop critical???
>
> And, I have another question.......
>
> I used rj2loop3 and ran the same numbers as above, except that I
> separated the wires by 10 wire diameters instead of 4.
>
> Instead of seeing the Q improve, it was reduced (from 101) to 93. I
> expected the Q to improve, not get worse. It seems odd to me. Is
there
> a good reason for this?? Ran it with a very low number and the Q
also
> get worse. So there appears to be an 'optimal' wire winding pitch
for
> optimizing Q?
>
> Byr the way, nice software package, thank you for it's use!
>
> >I assume your QTH is not adjacent to WWV's antenna. ;o)
>
> Temporarily, it is on the East Coast of the US. But, at home it is
> high in the mountains in Northern EU (with no commercial power for
> miles around).
>
> Thanks,
>

2903. Re: White Space

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 21:03:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1ho7m1dfu0t0cij1o93i3ibbjf55ni25o2@4ax.com>
Source record: 68300

On Fri, 21 Oct 2005 19:05:16 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>What do I imagine? Amateur TV Broadcasting! Remember the ill-fated
>neighborhood FM? Interest groups sank that idea like a rock in the
>ocean. What does "Amateur" mean in this context? Discard the notion
>of transmitting only to exchange QSL cards and start pumping music and
>game shows produced at the community level. The prohibition against
>transmitting entertainment is a antediluvian appeal to the 1930s.
>"Amateur" in this context means non-commercial. Not even appeals for
>donations. Do it on your own or go back to vaudeville.
>
>My notion to re-invigorate Amateur radio is to expand neighborhood TV
>transmission (small service area, AKA Pirate TV) making Hams the
>non-profit extension of the FCC for site review and inspection. Boost
>the technical requirements (sort of a low grade General
>Radiotelephone) for non-profit transmission testing and monitoring.
>Develop an association for granting area and frequency coverage (just
>like repeater associations have been doing for years) to co-ordinate
>allocations. There should even be provisions for networking.

Somehow I think what industry has in mind are ways to tap into "unused
spectrum space" dynamically and exploit it for Internet access
services. You don't need to look very far into their proposed method
of operation to see that a squat on a frequency band soon makes it
unused by anyone else.

Aren't the IEEE working on standards for such spectrum exploitation?

These ideas share a bit in common with the BPL menace, uncoordinated
access to spectrum, and put the onus on the licenced service subject
to interference to follow a regulatory maze to regain access to their
licence entitlements.

Owen

PS: "unused spectrum space" means not licenced to the squatter, and
not carrying enduring signals sufficient in strength to interfere with
their squat.
--

2904. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 21:18:02 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1130620682.540158.307160@f14g2000cwb.googlegroups.com>
Source record: 68301

Here's a related question that may help you answer yours:

Do all (assume lossless) antennas with the SAME directionality caputre
the same signal power?

If the answer to that one is "no," then I think you must first further
qualify your question, or it will be like comparing canteloupes and
grapes.

Cheers,
Tom

2905. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 21:36:07 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <jvp7m1htrj9k26d9joj84mr1avgq1qapgr@4ax.com>
Source record: 68302

On Fri, 28 Oct 2005 13:45:17 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 28 Oct 2005 20:12:48 GMT, Owen Duffy <owen@no.where> wrote:
>
>>Didn't Don Stoner describe a synchronous detector way back. I think I
>>remember reading an article in the mid sixties in "The Sideband
>>Handbook" or similar.
>>
>>I was about 15 then, so a detector that had something like 17 bottles
>>in it seemed overkill when I was copying CW and SSB on an AM receiver
>>(ie diode detector) with BFO.
>>
>>The appeal being an all-mode detector (including DSBSC), but
>>synchrounous detectors didn't seem to catch on in comms receivers,
>>well not until DSP detection... well I don't recall coming across them
>>anyway.
>
>Hi Owen,
>
>17 bottles indeed. That seems to strike a resonant chord in the
>ganglia because my construction was on a utility box of about 3" x 9"
>x 15" (not counting power supply requirements). We were working from
>a printed article certainly; and to confirm your recollection, there
>was a list of modes that could be detected that was long.
>
>My perception of the resurgence of interest in synchronous detection
>(it seems to have many names) is that a considerable body of knowledge
>evaporated in the 70s and 80s to leave only fragments of what this
>detector was useful at.

I think the appeal of it in the early days of suppressed carrier
exploitation by amateurs lay in its application to DSBSC demodulation.

It probably fell by the wayside when filter method SSB transceivers
became lower in cost.

Here is an interesting hypothetical. Australian amateurs at the
unrestricted licence grade are subject to the following power
restrictions:

16 Transmitter output power
(1) Subject to section 15, the licensee must not operate an amateur
unrestricted station, using a transmitter output power of more than
400 watts pX, if the emission mode of the station includes:
(a) C3F; or

(b) J3E; or
(c) R3E.
(2) The licensee must not operate an amateur unrestricted station, with an emission mode not mentioned in subsection (1), using a transmitter output power of more than 120 watts pY.

Since the emission mode for DSBSC is not one of those mentioned in 16(1), then the power limit is 120W pY. If the pX/pY (PEP/Average) power ratio for radiotelephony is somewhere around 12dB to 15dB, that suggests that (using a worst case of 15dB) that the 120W pY DSBSC telephony transmitter is around 3800W pX (PEP), whereas you will note that if we use SSBSC (J3E) we are limited to 400W pX.

Doesn't make sense, does it. Did I get the maths wrong?

Owen
--

2906. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 21:37:43 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <6sq7m1ph6m9gq61upli1pds1g7po4ml0l3@4ax.com>
Source record: 68303

On 29 Oct 2005 14:18:02 -0700, "K7ITM" <k7itm@aol.com> wrote:

>Do all (assume lossless) antennas with the SAME directionality caputre
>the same signal power?

Is "directionality" equivalent to the well known term Directivity?

Owen
--

2907. Re: Strictly OT - but you wouldn't expect anythiing else - would you?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 21:51:23 UTC
From: Polymath <G4SDW@lyos.co.uk>
Message-ID: <cir7m1l1j8cha69q633kkcdcd46iib64hr@4ax.com>
Source record: 68304
Cross-posted to: uk.radio.amateur,rec.radio.amateur.antenna

Stop forging me, asshole!

"Polymath" <aiyr.r.bean@lycos.co.uk> wrote:
> BRIAN! M3/CB Fools' candidate for you!!!!!
>
> Hugh Moore wrote:
> > CQ the brains in this group,
> > I ask coz I ain't got nun gov!
>

G4SDW

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http://www.usenetzone.com to open account

2908. Re: Strictly OT - but you wouldn't expect anythiing else - would you?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 22:17:37 UTC
From: Hugh Moore <nospam@thisaddress.please>
Message-ID: <dk0sdl$8hq$1@news6.svr.pol.co.uk>
Source record: 68305
Cross-posted to: uk.radio.amateur,rec.radio.amateur.antenna

>> Stop forging me, asshole!
Why would anyone want to forge YOU? or your ASSHOLE??
Dummy / pram / throw / out - reassemble ! - NO absolutely NO PRIZES
Oh dear
Hugh

2909. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 22:31:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dk0t78$m7q$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68306

"Reg Edwards" wrote

> To calculate change in velocity due to plastic PVC insulation we
need
> to know :-
>
> Wire diameter = d
> Diameter over insulation = D
> Height of wire above ground = H
> Permittivity of insulating material = K
>
> First calculate capacitance of bare wire to ground.
> Then calculate capacitance of insulated wire to ground.
> Velocity Factor = SquareRoot of their ratio.
> Neither Terman's nor Kraus' Bibles will mention the following
> formulae. So you'll just have to take my word for it.
>
>
> Velocity Factor = SquareRoot((A + B) / C)
>
> Where -
>
> A = K * Ln(4 * H / D)
>
> B = Ln(D / d)
>
> C = K * Ln(4 * H / d)
>
> Example :
> Bare wire diameter = 1.6 mm = 14 awg.
> Diameter over insulation = 2.6 mm.
> Height above ground = 10 metres = 33 feet.
> Permittivity of insulation = 3.5
>
> Velocity factor = 0.983
> Or a decrease in resonant frequency of 1.7 percent which can nearly
> always be forgotten about.
>
> The electrical effect of the enamel on magnet wire is entirely
> negligible. But it does protect the wire from atmospheric pollution.

==========

After a couple of days, and the time it took to derive the equations,
does nobody want to argue about it ? What about you, my dear Richard

Clark ?

By the way, I have now reverted to Australian, Banrock Station red plonk as being the best buy in my local supermarket. To get into my glass it has to come 12,000 miles. But, like it or not, our small globe gets smaller day by day.

Reg, G4FGQ.

2910. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 22:47:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <opu7m1d284962dl2bj7fjqq8d7ucto0bup@4ax.com>
Source record: 68307

On Sat, 29 Oct 2005 21:36:07 GMT, Owen Duffy <owen@no.where> wrote:

>Doesn't make sense, does it. Did I get the maths wrong?

Hi Owen,

Gad! I left all that computation behind when I finished the exam for FCC 1st Class. (Actually when I finished the Radar portion as I took the entire suite of tests, 3rd, 2nd, 1st, and Radar endorsement in one sitting.)

However, I do recognize a strategy when I see it, and I doubt, beyond slipping a decimal the wrong direction, you may have found a loophole.

73's
Richard Clark, KB7QHC

2911. Re: White Space

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 22:50:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d2v7m1dankip9a59a1vdmip45svta6h52g@4ax.com>
Source record: 68308

On Sat, 29 Oct 2005 21:03:18 GMT, Owen Duffy <owen@no.where> wrote:

>Aren't the IEEE working on standards for such spectrum exploitation?

Hi Owen,

If they have, the filaments' light of their finals are hidden under a
bushel.

73's
Richard Clark, KB7QHC

2912. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 22:53:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <29v7m11uu2npjlhh1lv0rvtdb6jnvcnb6e@4ax.com>
Source record: 68309

On Sat, 29 Oct 2005 22:31:04 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>does nobody want to argue about it ? What about you, my dear Richard Clark ?
>By the way, I have now reverted to Australian, Banrock Station red

I've been drinking "Tango" labels from Argentina. Wanna step out into
the parking lot to talk about this?

2913. Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 22:55:15 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96FEA2142E556spectrumhogstarbandn@207.106.93.175>
Source record: 68310

I'm trying to shoot a line over a tree limb to hoist my next generation of wire dipole.

I'm using a slingshot, a 1 oz round lead fishing weight, and in this case, 40# test fishing line.

Although I have had fair success in the past, I'm having difficulties lately. My weight won't pull the line down the other side of the limb beyond where it stopped.

My Question: What weight do you guys recommend? Does anyone know what weight is used on the EZhang system? Comments sollicited.

Right now I'm waiting for the wind to blow and hopefully move the tree limb enough to make the hanging weight pull my live over to the point where I can reach it.

Ed K7AAT

2914. Re: White Space

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 23:09:50 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <u808m11b03g22p361a973sk49iotp18u8o@4ax.com>
Source record: 68311

On Sat, 29 Oct 2005 15:50:12 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 29 Oct 2005 21:03:18 GMT, Owen Duffy <owen@no.where> wrote:
>
>>Aren't the IEEE working on standards for such spectrum exploitation?
>
>Hi Owen,
>
>If they have, the filaments' light of their finals are hidden under a
>bushel.
>

http://standards.ieee.org/announcements/pr_80222.html

Owen
--

2915. Re: New to VHF/UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 23:37:29 UTC
From: Charlie <charlie@play.com>
Message-ID: <11m81u6krouga7b@news.supernews.com>
Source record: 68312
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Using an Icom 746 Pro here which includes HF/6M/2M with a full 100W on all bands. I have been on HF since 1995 and an avid DX'r and secretly sneered at VHF/UHF but did want to try 2M SSB.

I now have VHF antennas at 72' 90' and 95' and am net control and founder of the Deep South 2 Meter SSB Net.
There was very little 2M SSB traffic in my region when I got on 2M SSB but since the net started on April 8, 2005 we have now had over 100 2M SSB stations check-in representing 10 states so far.

Typically there are 25-35 or more O(record is 39) check-ins every evening. So..for those that say there is little 2M SSB activity why not stir some up???!!!???

Deep South 2 Meter SSB Net - 8:30PM CT - 144.240 USB - net control EM52kn (Union,Mississippi)
www.deepsouthnet.net

--

Charlie-AD5TH
www.ad5th.com

"Rod Maupin" <gridman@ywave.com> wrote in message news:11m7p8f25vmfg1b@corp.supernews.com...
> I've been on HF for years, but am new to VHF/UHF.
>
> I'm thinking of getting a VHF/UHF base station and it looks like the only
> thing around is the ICOM IC-910H. Is there a reason for this? Because of
> this, it seems to me that most people must not have a base station for
> these bands.
>
> Is this correct?
>
> Rod
>
>

2916. Re: White Space

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-29 23:50:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tg28m1ld74344u7unthu506q16b06q6a4n@4ax.com>
Source record: 68313

On Sat, 29 Oct 2005 23:09:50 GMT, Owen Duffy <owen@no.where> wrote:

>
>http://standards.ieee.org/announcements/pr_80222.html

Hi Owen,

Ah! Then the answer to your first question would be they are goring
my ox.

73's
Richard Clark, KB7QHC

2917. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 00:29:25 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96FEB20BA2150spectrumhogstarbandn@207.106.93.175>
Source record: 68314

Addendum to first post: a couple hours later:

It didn't take a light breeze more than an hour or so to wiggle the tree limb and allow the weight to drop down a bit further. I grabbed it with a pole and have completed that phase now.

But my question still stands. What is the recommended weight and line for this type work, and are there any recommended techniques to get the weight to drop down when friction of the tree limb tends to hold it?

Ed K7AAT

2918. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 00:52:44 UTC
From: "carkenord@juno.com" <carkenord@juno.com>
Message-ID: <1130633563.967446.51040@g49g2000cwa.googlegroups.com>
Source record: 68315

I've done the same type shooting over the years, with good success rate.

I think 1 oz. is minimum, 1.5 oz. is better. I favor 30 lb. line.....and I only use monofilament. Mono is "slicker" and will slide over branches better than other types line.

As you found, patience helps.....give the wt. plenty of slack line, and leave it hang. It'll usually gradually drop lower and lower.

Also.....winter is better time to do this, when most trees have lost most of their foliage, especially in the North.

Lee Carkenord KA0FPJ

2919. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 00:56:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gu58m1pirds7h5653s5be71scpnm99b871@4ax.com>
Source record: 68316

On Sun, 30 Oct 2005 00:29:25 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>any recommended techniques to get the
>weight to drop down when friction of the tree limb tends to hold it

Hi Ed,

You've just experienced it. Wait. Gravity is your friend.

I use 1/16" braided nylon (so no curl is built in).

I've thrown it by hand (swinging the weight);
used a slingshot;
used a bow and arrow.

I usually scatter fill a large bucket so that the random loops do not
tangle when the weight goes into flight. There's nothing so shocking
as to find an arrow coming back with a snag caught on the nearest bush
(and isn't there always a bush near a tree?).

Always allow for free movement of the line afterwards. Don't tie it
firmly in place. Balance it with a counterweight, otherwise tree and
wind movement will wear something to failure.

73's
Richard Clark, KB7QHC

2920. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 03:01:50 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <zGW8f.25586$ty1.17717@bignews1.bellsouth.net>
Source record: 68317

> I use 1/16" braided nylon (so no curl is built in).
>
> I've thrown it by hand (swinging the weight);
> used a slingshot;
> used a bow and arrow.
>
What - no potato-gun ??
conduit, hair-spray, and a potato with fishing line.
spray into the conduit (closed at the other end except for a small hole.))
force potato into open end a ways.
put a match to the small hole. ka-pow
I heard it works pretty good, but sounds dangerous.

I use bow-and-arrow - with a fishing arrow.
that arrow is heavy enough to pull the line to the ground

2921. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 03:29:48 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <11m8fhc5lqvs6fe@corp.supernews.com>
Source record: 68318

On 2005-10-29, Reg Edwards <g4fgq.regp@ZZZbtinternet.com> wrote:
> By the way, I have now reverted to Australian, Banrock Station red

Yellow Tail Shiraz

2922. SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 04:27:13 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <xYX8f.6376$ZP1.4994@dukeread11>
Source record: 68319

Can someone tell me where I can get an SWR meter that will work in the 2.4 to 2.45 ghz range with 50 to 1000 mW? I have found several websites that claim to tell you how to build your own, but none of them have anywhere enough information for someone who doesn't already know what they are doing.

--
Chris W

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from anywhere, for any occasion!
http://thewishzone.com

2923. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 05:14:18 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <KEY8f.1093$xp1.689@trnddc01>
Source record: 68320

"Chris W" <1qazse4@cox.net> wrote in message
news:xYX8f.6376$ZP1.4994@dukeread11...
> Can someone tell me where I can get an SWR meter that will work in the 2.4
> to 2.45 ghz range with 50 to 1000 mW? I have found several websites that
> claim to tell you how to build your own, but none of them have anywhere
> enough information for someone who doesn't already know what they are
> doing.
> --
> Chris W
>
> Gift Giving Made Easy
> Get the gifts you want & give the gifts they want
> One stop wish list for any gift, from anywhere, for any occasion!
> http://thewishzone.com

Hi Chris

Could you get the information you need with a directional coupler?? eBay
has directional couplers for less than $20.00 often.

Jerry

2924. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 05:25:50 UTC
From: TRABEM <>
Message-ID: <qam8m1dj5402c0r83dt1tmjt9bc061tf3i@4ax.com>
Source record: 68321

OK Reg,

You are very patient and your time and expertise is appreciated.

Last night I looked at many web articles on loops, many of which had preamps. I was a little discouraged. Many were fed with coax, which seems a little odd, especially since some of these loops had secondary resonances in the MF or HF bands. It seems like a preamp with a little non linearity, some big MF signals nearby, and a feed line that isn't balanced is a bit of a disaster waiting to happen.

I know many of the HF radios in use have preamps that can be turned off (actually they are 20 db pads).

But, regardless of my receivers susceptibility to out of band signals, I would want to feed my receiver with balanced line...especially since it's much cheaper than coax and should help prevent the feed line from picking up signals.

So.....followed everything in your last message and it all seems so simple (now)....

Getting back to last nights study session. Spent a couple of hours in my 1987 ARRL Handbook and the remainder on the web looking at real life loops published there. The web aspect was really disappointingly devoid of technical jargon, it seems like most of the loop authors just threw something up and it seemed to work-the end:>: Do people just throw stuff up without understanding what they're doing, or do they understand and just fail to document the theory??

The Handbook tour was almost as bad. Very little was said about loops except that which applied to the full wave resonant loop and how it can serve as a driven element in a 1 lambda 'guad' type radiator. Other than the theoretical wavelength, the correction factor for wire diameter, there was not more than 2 paragraphs written with useful information on short loops such as I am trying to put up.

There was a question I had, perhaps I'm reading between the lines here tho....

YOU SAID:

>And even with an extremely long line any impedance mismatch loss will
>be negligible. So forget about 300-ohm balanced line and just use a
>simple not-tightly-twisted pair. NO IMPEDANCE MATCHING REQUIRED at
>either end. The size of the small coupling loop inside the main loop

>matches 50 ohms to a 50-ohm receiver. So ideally the line to the
>receiver could be 50-ohm coax. But, as I say, it doesn't matter.
>
>The size and shape of the small coupling loop is not critical. It can
>be circular or square. Theoretically, to match the loop to a 50-ohm
>receiver, it should have an area about 1/25th of the main loop area.
>To simplify construction the coupling loop can be made
>self-supporting.
>

With your statement above in mind, are you telling me (or inferring) that any loop can be made to match a 50 ohm line by controlling it's size (area inside the main loop compared to area inside the coupling loop)??

In rjeloop3, the different sized loops have different feed line impedances, ranging from about 200 to 4K ohms. I made my final selection based on the model that matched my existing 300 ohm twin lead. I know you said my line impedance doesn't matter much, and I agree, except that it upsets the tuned front end in the receiver a bit.

If it's possible to control this impedance of the small loop, what are the parameters I need to know to adjust mine to different values (other than those given by the software)??

I know you gave me the formula for matching to 50 ohms already. But, if this value can be controlled to customize the impedance, what do I need to know in order to make a match for other values?

For my planned 2 meter square loop, my area is 2 X 2 X 4 (2 meters by 2 meters times 4 turns), sm my total loop area is 16 square meters. From the information you gave me (above), I can feed the receiver with 50 ohm feed line if my coupling loop is 16/25 (or about .8 square meters)?

I know the matching isn't critical, but I'd like to have a good match for the sake of the front end tuned circuit in the receiver.

If you can't say without writing a book, please feel free to decline to answer. If you can give the answer briefly, I'd appreciate some comments however.

Hey Reg, was down in the basement where I keep the junk box and found a couple hundred feet of 4 conductor #24 solid copper cable. It's used for connecting telephones indoors. It's even cheaper than 300 ohm twin lead and I was wondering if I could/should use that as a feed line to the house??

Today I surveyed the loop location in the back yard, I have my solder and my 5/16" double weave rayon rope spool out and ready to go. My loop resonating capacitors should be here Wednesday. If all goes well, I could have a working installation by this time next week! Thing's

are looking up.

Also, Richard suggested a book about loops which I did not find in the library, or even in the reference section. I didn't price it yet, but I need to get some additional technical info. Do you have any suggestions for what to buy for books?? I don't need anything other than short loop theory (without heavy math).

Thanks to you and Richard and everyone else who commented in this thread, I learned a great deal.

Regards,

T

>>
>> At 60 KHz,
>>
>> 4 turns of 2 mm diameter wire, spaced 4 wire diameters apart.
>> 2 meters per side
>> 123 uH, 60,000 pF to resonate
>> 4.7K across the loop.
>> 300 ohm feed impedance at single turn loop feed
>> Q (unloaded) = 101
>>
>>

2925. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 05:35:44 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <LYY8f.6458$ZP1.6257@dukeread11>
Source record: 68322

Jerry Martes wrote:

>"Chris W" <1qazse4@cox.net> wrote in message
>news:xYX8f.6376$ZP1.4994@dukeread11...
>
>
>>Can someone tell me where I can get an SWR meter that will work in the 2.4
>>to 2.45 ghz range with 50 to 1000 mW? I have found several websites that
>>claim to tell you how to build your own, but none of them have anywhere
>>enough information for someone who doesn't already know what they are
>>doing.
>>--
>>Chris W
>>
>>Gift Giving Made Easy
>>Get the gifts you want & give the gifts they want
>>One stop wish list for any gift, from anywhere, for any occasion!
>>http://thewishzone.com
>>
>>
>
> Hi Chris
>
> Could you get the information you need with a directional coupler??
>
>

That is a good question. One site talked about using a directional
coupler, a few diodes and a scope to measure SWR but I didn't really
understand it all and it sounded like I needed a special diode that they
didn't give details on where to get.

What I am trying to do is tune home made antennas for wireless
networks. So I need to measure the SWR so I know when the antenna is
tunned as good as I can get it.

--
Chris W

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give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

2926. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 05:59:52 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <sjZ8f.17267$ti.5130@trnddc02>
Source record: 68323

"Chris W" <1qazse4@cox.net> wrote in message
news:LYY8f.6458$ZP1.6257@dukeread11...
> Jerry Martes wrote:
>
>>"Chris W" <1qazse4@cox.net> wrote in message
>>news:xYX8f.6376$ZP1.4994@dukeread11...
>>
>>>Can someone tell me where I can get an SWR meter that will work in the
>>>2.4 to 2.45 ghz range with 50 to 1000 mW? I have found several websites
>>>that claim to tell you how to build your own, but none of them have
>>>anywhere enough information for someone who doesn't already know what
>>>they are doing.
>>>--
>>>Chris W
>>>
>>>Gift Giving Made Easy
>>>Get the gifts you want & give the gifts they want
>>>One stop wish list for any gift, from anywhere, for any occasion!
>>>http://thewishzone.com
>>>
>>
>> Hi Chris
>>
>> Could you get the information you need with a directional coupler??
>
> That is a good question. One site talked about using a directional
> coupler, a few diodes and a scope to measure SWR but I didn't really
> understand it all and it sounded like I needed a special diode that they
> didn't give details on where to get.
> What I am trying to do is tune home made antennas for wireless networks.
> So I need to measure the SWR so I know when the antenna is tunned as good
> as I can get it.
>
> --
> Chris W
>
> Gift Giving Made Easy
> Get the gifts you want & give the gifts they want
> One stop wish list for any gift, from anywhere, for any occasion!
> http://thewishzone.com

Hi Chris

If you are lucky, you will get some response to your post from some of the
very sharp antenna guys here. I'm not one of them.

I personally would have alot of learning to do if I wanted to know how to *match* an antenna if I knew only VSWR. I need to know the actual impedance at the load.
I have built a crude slotted line so I can measure complex load impedances at 137 MHz. That works OK, but certainly not perfect.
Let me know if you have access to tools that you can use to build a slotted line for 2.4 GHz.. A slotted line makes impedance matching fairly easy.

I suspect there are better ways to measure load impedance than building slotted lines for 2.4 GHz, I just dont yet understand them.

Jerry

2927. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 07:26:11 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrndm8tcj.1qoc.ben@saturn.home.ben.com>
Source record: 68324

On 2005-10-30, Chris W <1qazse4@cox.net> wrote:
> Can someone tell me where I can get an SWR meter that will work in the
> 2.4 to 2.45 ghz range with 50 to 1000 mW?

I assume we're talking about WiFi cantennas here?

Anyway, Radio Shack has a $30 SWR meter which many people have pressed
into service at far higher than advertised frequencies. You'll need
to detour over to Fry's or someplace similar to get an adapter (or
stack of adapters) to get from the (comically large by wifi standards)
SO-239 to the reverse SMA or whatever is on your wifi gear.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

2928. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 11:43:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11m9ceqjqnbs59b@corp.supernews.com>
Source record: 68325

I've been doing this on Field Day for a long time.

First off, I use about 6-8 pound test line. It's heavy enough to pull a nylon cord back over the tree, but light enough so it comes off smoothly and so I can get plenty of line on a reel.

Second, I use teardrop-shaped fishing weights (narrow at the line end), never round or pyramid. The latter types snag too readily if you have to pull the weight back up. Try dragging the weight across a weedy back yard if you need an illustration.

As for the weight itself -- over the years I slowly increased the weight to as much as 3 ounces, so it would drop freely through fairly dense pine and fir trees. But I had an increasing amount of trouble with the weight coming out of the pouch during the shot, leading to very short shots and even occasionally a cut elastic unless everything was just right. Dropping back with the weight cured the shooting problem, along with using a slingshot with wide spaced arms. I've settled on about 2 oz as the best compromise between trouble-free shooting and the ability to drop through the tree.

I never use this method for a home installation unless it's for no more than a few days -- the twine or even rope cuts into the tree, making it impossible to get down. This might not be as much of a problem with hardwood trees as it is for softer and pitchier conifers. Also, I've had people tell me that very heavy nylon monofilament is less prone to this -- I haven't tried it.

Roy Lewallen, W7EL

Ed wrote:
> I'm trying to shoot a line over a tree limb to hoist my next
> generation of wire dipole.
>
> I'm using a slingshot, a 1 oz round lead fishing weight, and in this
> case, 40# test fishing line.
>
> Although I have had fair success in the past, I'm having difficulties
> lately. My weight won't pull the line down the other side of the limb
> beyond where it stopped.
>
> My Question: What weight do you guys recommend? Does anyone know
> what weight is used on the EZhang system? Comments sollicited.
>
> Right now I'm waiting for the wind to blow and hopefully move the tree
> limb enough to make the hanging weight pull my live over to the point

> where I can reach it.
>
>
> Ed K7AAT

2929. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 13:12:05 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <p9adnU0-z7kpW_neRVn-qg@comcast.com>
Source record: 68176

I believe a "Slotted Line" would be among the better ways to measure SWR
in this frequency range.

Ask Cecil or Roy, regular contributors to this list, for their advice.

AK

Chris W wrote:

> Can someone tell me where I can get an SWR meter that will work in the
> 2.4 to 2.45 ghz range with 50 to 1000 mW? I have found several websites
> that claim to tell you how to build your own, but none of them have
> anywhere enough information for someone who doesn't already know what
> they are doing.

2930. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 13:31:10 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <yW39f.90904$lo.67156@clgrps13>
Source record: 68177

> Can someone tell me where I can get an SWR meter that will work in the 2.4
> to 2.45 ghz range with 50 to 1000 mW? I have found several websites that
> claim to tell you how to build your own, but none of them have anywhere
> enough information for someone who doesn't already know what they are
> doing.
> --
> Chris W

I would recommend the Mini-Circuits ZABDC-25HP directional coupler ($89.95).
Do not use diode detectors. Mix the forward and reverse ports down to a low
frequency, of 10 MHz or so (phase information is preserved). View the
downconveted signals on a dual channel oscilloscope. Techincally you need
to low pass filter the downconverted signals, but the scope will not see the
higher frequency components.

Do not attempt to use SO-239 connectors at 2.5 GHz. Building a directional
coupler at 2.5 GHz requires track precision in the order of +/- 1/1000".
You will also need high quality PCB material such as RT Duroid.

Regards,

Frank

2931. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 13:41:54 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <IuOdnXlqx8nVUPnenZ2dnUVZ_tGdnZ2d@comcast.com>
Source record: 68178

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96FEA2142E556spectrumhogstarbandn@207.106.93.175...
>
> I'm trying to shoot a line over a tree limb to hoist my next
> generation of wire dipole.
>
> I'm using a slingshot, a 1 oz round lead fishing weight, and in this
> case, 40# test fishing line.
>
> Although I have had fair success in the past, I'm having difficulties
> lately. My weight won't pull the line down the other side of the limb
> beyond where it stopped.
>
> My Question: What weight do you guys recommend? Does anyone know
> what weight is used on the EZhang system? Comments sollicited.
>
> Right now I'm waiting for the wind to blow and hopefully move the tree
> limb enough to make the hanging weight pull my live over to the point
> where I can reach it.
>
>
> Ed K7AAT
6 pound monofilament line is more than strong enough. I use that to pull up a nylon string, which in turn can pulll up anything. The secret is not to lay the line on the ground. A 1 inch twig is enough to spoil your day. First lay a drop cloth on the ground, and lay out the line on that. Some people on this newsgroup use a plastic bucket.

If you miss the right branch, don't try to pull the weight back up. Let it go all the way to the ground, cut off the weight, and then pull back the line.

I use a bow and arrow, with a small solid rubber ball fixed to the front of the arrow. I have one wire going between branches 70 feet up. It works better if you wait until the leaves are off the trees.

Tam/WB2TT

2932. Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 14:27:49 UTC
From: "Steve - www.ukspeedtraps.co.uk" <ask@please.com>
Message-ID: <dk2l95$1ij$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68179

Hi All

I want to construct a backpack antenna that can be left on my rucksack and used when walking.

The plan is to have a FT817 on my waist and the antenna fitted to the rucksack. I been playing with a mobile antenna today and can not get the SWR down without trailing a wire. I don't want a wire trailing behind me.

Any ideas for a 2m antenna that can be left on a rucksack when walking and used for transmittion. Height is not a major problem but it has to realistic and robust.

Thanks
Steve

--
The UK SpeedTrap Guide" @ www.ukspeedtraps.co.uk
The UK Weather Guide" @ www.ukstorms.com

2933. MasterMobile wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 14:34:51 UTC
From: Earl Needham <munged@3lefties.com>
Message-ID: <11m9mged7ckqrcc@corp.supernews.com>
Source record: 68180

Looking for one MasterMobile 20-meter coil and one MasterMobile 75-meter coil.

Thanks,
Earl

--
Earl Needham
Clovis, New Mexico USA

2934. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 14:41:17 UTC
From: John N9JG <john@gotwals.xremovey.com>
Message-ID: <dk2m2dpqs1@mailhub227.itcs.purdue.edu>
Source record: 68181

Take a look in the latest issue of the ARRL Antenna Book. Chapter 5 is devoted entirely to loop antennas, and the chapter includes information about small loops. At the end of the chapter is a nice sized bibliography.

<TRABEM> wrote in message news:qam8m1dj5402c0r83dt1tmjt9bc061tf3i@4ax.com...
[stuff]
>
> Getting back to last nights study session. Spent a couple of hours in
> my 1987 ARRL Handbook and the remainder on the web looking at real
> life loops published there. The web aspect was really disappointingly
> devoid of technical jargon, it seems like most of the loop authors
> just threw something up and it seemed to work-the end:>: Do people
> just throw stuff up without understanding what they're doing, or do
> they understand and just fail to document the theory??
>
> The Handbook tour was almost as bad. Very little was said about loops
> except that which applied to the full wave resonant loop and how it
> can serve as a driven element in a 1 lambda 'guad' type radiator.
> Other than the theoretical wavelength, the correction factor for wire
> diameter, there was not more than 2 paragraphs written with useful
> information on short loops such as I am trying to put up.
>
[stuff]

2935. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 14:41:29 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <de89e$4364dbf2$97d56aa2$19189@ALLTEL.NET>
Source record: 68182

Ed, did you forget to climb the tree and grease the limb so the line would
slide over?

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns96FEA2142E556spectrumhogstarbandn@207.106.93.175...
>
> I'm trying to shoot a line over a tree limb to hoist my next
> generation of wire dipole.
>
> I'm using a slingshot, a 1 oz round lead fishing weight, and in this
> case, 40# test fishing line.
>
> Although I have had fair success in the past, I'm having difficulties
> lately. My weight won't pull the line down the other side of the limb
> beyond where it stopped.
>
> My Question: What weight do you guys recommend? Does anyone know
> what weight is used on the EZhang system? Comments sollicited.
>
> Right now I'm waiting for the wind to blow and hopefully move the tree
> limb enough to make the hanging weight pull my live over to the point
> where I can reach it.
>
>
> Ed K7AAT

2936. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 16:28:27 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <bu8f33-8s.ln1@p400bob.personal.cox.net>
Source record: 68184

Hi Steve

Many years ago I use to do early morning exercise walks in the mountain range immediately to the west of Sydney's metro area. As soon as I dropped off the western mountain edge all rptr sigs were still audible on my IC2A but they couldnt hear me.

I made up a 2M jpole out of 10mm aluminium and tied it to my backpack with rope and/or rubber straps. The thing wobbled a bit but stayed more or less vertical. The backpack was very floppy, a more rigid one would have been better. There was about a 1/2 metre metal extension from the base of the matching section to faciltate the rope binding. The thing was about 1.3 metres max height above my head.

I also built a 10W PA running off 12 D cell NiCd's. Worked very well until the constant battery pack flexing shorted something and the hot wiring melted a hole through the backpack pocket it was sitting in!

If the extra matching section length is an issue you might find other ways of end/voltage feeding the 1/2 wave. Lots of possibilities here. You could also use a fibreglass rod with 300 ohm ribbon tied to it in a jpole or slim jim form. Handy in a region of low flying trees.

Height on LOS frequencies is everything . Getting the antenna above your head will make a huge difference. Everyone thinks you are a extraterrestrial visitor too!

Your present mobile antenna will need a counterpoise. (aka groundplane) I suggest you discard the idea of using it unless you can get use to the trailing 1/4 wave wire(s). Maybe it would work by mounting the antenna on an extension so its base is about head height, then wrapping three ground radials down the sides of the backpack. You could make it more permanent by weaving the wire into the backpack itself.

Cheers Bob VK2YQA (in W5)

Steve - www.ukspeedtraps.co.uk wrote:
> Hi All
>
> I want to construct a backpack antenna that can be left on my rucksack and
> used when walking.

2937. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 16:32:41 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <oA69f.14374$i%.13985@fed1read07>
Source record: 68183

TRY HF PACK WEB SITE
http://www.hfpack.com/

--
CL -- I doubt, therefore I might be !

"Steve - www.ukspeedtraps.co.uk" <ask@please.com> wrote in message
news:dk2l95$1ij$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Hi All
>
> I want to construct a backpack antenna that can be left on my rucksack and
> used when walking.
>
> The plan is to have a FT817 on my waist and the antenna fitted to the
> rucksack. I been playing with a mobile antenna today and can not get the
> SWR down without trailing a wire. I don't want a wire trailing behind me.
>
> Any ideas for a 2m antenna that can be left on a rucksack when walking and
> used for transmittion. Height is not a major problem but it has to
> realistic and robust.
>
> Thanks
> Steve
>
> --
> The UK SpeedTrap Guide" @ www.ukspeedtraps.co.uk
> The UK Weather Guide" @ www.ukstorms.com
>

2938. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 17:15:46 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96FF5E416BDDEspectrumhogstarbandn@207.106.92.175>
Source record: 68185

Thanks Roy. Good discussion on my qeustions.

Ed

> I've been doing this on Field Day for a long time.
>
> First off, I use about 6-8 pound test line. It's heavy enough to pull
> a nylon cord back over the tree, but light enough so it comes off
> smoothly and so I can get plenty of line on a reel.
>
> Second, I use teardrop-shaped fishing weights (narrow at the line
> end), never round or pyramid. The latter types snag too readily if you
> have to pull the weight back up. Try dragging the weight across a
> weedy back yard if you need an illustration.
>
> As for the weight itself -- over the years I slowly increased the
> weight to as much as 3 ounces, so it would drop freely through fairly
> dense pine and fir trees. But I had an increasing amount of trouble
> with the weight coming out of the pouch during the shot, leading to
> very short shots and even occasionally a cut elastic unless everything
> was just right. Dropping back with the weight cured the shooting
> problem, along with using a slingshot with wide spaced arms. I've
> settled on about 2 oz as the best compromise between trouble-free
> shooting and the ability to drop through the tree.
>
> I never use this method for a home installation unless it's for no
> more than a few days -- the twine or even rope cuts into the tree,
> making it impossible to get down. This might not be as much of a
> problem with hardwood trees as it is for softer and pitchier conifers.
> Also, I've had people tell me that very heavy nylon monofilament is
> less prone to this -- I haven't tried it.
>
> Roy Lewallen, W7EL
>

2939. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 17:16:58 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns96FF5E75ACEAAspectrumhogstarbandn@207.106.92.175>
Source record: 68186

Thanks, Fred, (and others). I'll try the plastic bucket method of dispensing next time!

Ed

2940. Anyone using ZX GP-2W 12m/17m vertical???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 17:46:13 UTC
From: Charlie <charlie@play.com>
Message-ID: <11ma1nl9gnjm3c2@news.supernews.com>
Source record: 68187

I am interested to learn from those that have them installed. It is the only 12M/17M vertical I can find anywhere. Made in Germany with no UISA dealers I can locate. It is just what I need but can't even find reviews of it on eHam.

Any info very much appreciated...

--

Charlie-AD5TH
www.ad5th.com

2941. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 18:41:53 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1130697713.178097.190440@g43g2000cwa.googlegroups.com>
Source record: 68188

Roy Lewallen, W7EL wrote:

> They'll intercept equal amounts, assuming both are lossless. The
> directional antenna will intercept a larger fraction than the isotropic
> antenna in the directions it favors, and less in others. The total will
> be be the same.

> In reverse, this is equivalent to calculating the average gain of the
> antennas, which is the same for all lossless antennas.
>
>
>Roy Lewallen, W7EL
>

Hello to all, my name is Miguel, LU 6ETJ.

It is a pleasure to read this group. This topic is really an
interesting question...

Modestly I would want to point out the following thing:

Imagine an inner radiant spherical surface with a finite and uniform
density radiant energy.
Aim a directional antenna with a directivity of, for example, one
stereoradian on any direction.
How is it able to such an antenna to receive equal quantity of energy
of a smaller portion of the sphere than an antenna that is able to
receive the energy taken place by the entirety sphere?

73´s of Miguel Ghezzi (LU 6ETJ)

Untranslated text for reference (my written english is a little poor
;>( ):

Hola a todos, mi nombre es Miguel LU 6ETJ.

Es un gusto leer este grupo. Este tópico es realmente una interesante
pregunta...

Modestamente desearía señalar lo siguiente:

Imagine la parte interior de una esfera radiante, con una densidad de
energia radiante finita y uniforme.
Apunte un antena direccional con una directividad de, por ejemplo, un
estéreo radian en cualquier dirección.
¿Cómo puede tal antena recibir igual cantidad de energía de una
porción menor de la superficie radiante, que una antena que es capaz
de recibir la energía producida por la totalidad de la esfera?

73´s de Miguel Ghezzi (LU 6ETJ)

2942. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 18:45:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ma55ns0dmj7b9@corp.supernews.com>
Source record: 68189

A half wave antenna such as the AEA Hot Rod or the MFJ copy of it works
well with no ground plane or trailing wire. The models I mentioned are
telescoping, so you can collapse them when not walking.

Roy Lewallen, W7EL

Steve - www.ukspeedtraps.co.uk wrote:
> Hi All
>
> I want to construct a backpack antenna that can be left on my rucksack and
> used when walking.
>
> The plan is to have a FT817 on my waist and the antenna fitted to the
> rucksack. I been playing with a mobile antenna today and can not get the SWR
> down without trailing a wire. I don't want a wire trailing behind me.
>
> Any ideas for a 2m antenna that can be left on a rucksack when walking and
> used for transmittion. Height is not a major problem but it has to realistic
> and robust.
>
> Thanks
> Steve
>

2943. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 18:48:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <545am11jsm295ddpo588v5nbtj0u4tedo9@4ax.com>
Source record: 68190

On 30 Oct 2005 10:41:53 -0800, "lu6etj" <lu6etj@gmail.com> wrote:

>Imagine an inner radiant spherical surface with a finite and uniform
>density radiant energy.
>Aim a directional antenna with a directivity of, for example, one
>stereoradian on any direction.
>How is it able to such an antenna to receive equal quantity of energy
>of a smaller portion of the sphere than an antenna that is able to
>receive the energy taken place by the entirety sphere?

Hi Miguel,

You are quite right. Only an isotropic antenna can take all the
energy as only an isotropic could have transmitted it. The uniform
distribution and the spherical geometry force this solution even
though it is a practical impossibility.

The real question is, how did that energy get turned around to come
back?

73's
Richard Clark, KB7QHC

2944. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 19:02:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <qN89f.8141$7h7.6528@newssvr21.news.prodigy.com>
Source record: 68191

Richard Clark wrote:
> The real question is, how did that energy get turned around to come
> back?

A conductive Dyson's sphere?
--
73, Cecil http://www.qsl.net/w5dxp

2945. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 20:06:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dk393gkma1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68192

"Richard Clark" wrote -

> Wanna step out into
> the parking lot to talk about this?

==========

A typical USA aggresive attitude towards foreigners. ;o)

2946. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 20:15:51 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <oo9am1hs0po0e2pmdc1p13tm64566v2qla@4ax.com>
Source record: 68193

On Sat, 29 Oct 2005 23:27:13 -0500, Chris W <1qazse4@cox.net> wrote:

>Can someone tell me where I can get an SWR meter that will work in the
>2.4 to 2.45 ghz range with 50 to 1000 mW? I have found several websites
>that claim to tell you how to build your own, but none of them have
>anywhere enough information for someone who doesn't already know what
>they are doing.

Firstly, to answer your question.

"SWR meters" like you buy off the shelf for HF/VHF/UHF are not commonly used at microwave frequencies, and you are talking about low end microwave frequencies.

The nearest equivalent would be to get a directional coupler (a four port device with IN, OUT, FORWARD and REFLECTED ports where the FORWARD and REFLECTED ports are a sample of the forward and reflected (RF) waves). You then measure the RF power at the FORWARD and REFLECTED ports using a wattmeter such as a bolometer wattmeter like the HP432A, and calculate the SWR. Used directional couplers are not very expensive, but power meters are and they (or the bolometer heads) are very sensitive to physical damage.

Second, so... now that you have measured / calculated SWR, what are you going to do with it. You haven't told us exactly what you are measuring, but SWR is caused by a multi-dimensional problem, and unless you know that a single adjustment will bring SWR into acceptable range, then SWR doesn't give you enough information.

It is almost all CB enthusiasts, most hams, and apparently some WiFi enthusiasts that think SWR gives them all the answers.

If you are genuinely interested in the technical aspects of transmission lines and antennas, picking a project at 2.4GHz is possibly a most difficult one for learning the principles because instrumentation is so expensive and components are so small physically (good and bad, but mainly bad).

Owen
--

2947. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 20:30:59 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <59edd$43652ddf$97d56aa2$18916@ALLTEL.NET>
Source record: 68194

What da ya mean by that, you want me to kick your limey ass...

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dk393gkma1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com...
==========
>
> A typical USA aggresive attitude towards foreigners. ;o)
>
>

2948. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 20:50:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <dma9f.10035$tV6.8119@newssvr27.news.prodigy.net>
Source record: 68195

Reg Edwards wrote:
> "Richard Clark" wrote -
>>Wanna step out into
>>the parking lot to talk about this?
>
> A typical USA aggresive attitude towards foreigners. ;o)

That's also a pick up line, Reg. :-)
--
73, Cecil http://www.qsl.net/w5dxp

2949. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 21:07:06 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0edam1lvufnurh1boc9bsvav40qccuue87@4ax.com>
Source record: 68196

On Sun, 30 Oct 2005 20:50:17 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Reg Edwards wrote:
>> "Richard Clark" wrote -
>>>Wanna step out into
>>>the parking lot to talk about this?
>>
>> A typical USA aggresive attitude towards foreigners. ;o)
>
>That's also a pick up line, Reg. :-)

Cecil, I don't know whether these guys want to step into the parking lot to trade kicks to the groin, or to smooch... but neither is too edifying!

Owen
--

2950. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 21:48:24 UTC
From: fh03 <fh03.1xqy43@news.radiobanter.com>
Message-ID: <fh03.1xqy43@news.radiobanter.com>
Source record: 68208

thanks for your input guys. I havent been able to come online due to power outages caused by hurricane wilma.

anyway. the reed switch mentioned would work, but the distance is the issue. I currently have an rfid reader and passive tag, but they too work only within a few inches. What I need is for the device to be activated within 5 feet of the receiver and from my understanding a reed switch cant do that.

I know electronic toll payment systems seem to conserve battery, and thats what i need. Bascially I want to have a battery in the unit, but I dont want the battery to be connected until we're in that range. The reason passive devices dont work is because even though the antenna can provide an induced current, without a battery the tag doesnt have enough power to be able to transmit over say a few inches, let alone five feet. So we need battery in the transmitter. The user only carries a transmitter, so it doenst know when it is within range. I have a microcontroller that will transmit an ID as soon as it is powered up, but I dont want it to be on at all times, and I dont want a switch. I'll look into the "Hall Effect" now and see what its about.

Thanks again guys, keep it coming.

--
fh03

2951. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:13:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mahd8l6rp635f@corp.supernews.com>
Source record: 68197

Thanks for the vote of confidence, but I don't have a ready answer.

Making an HF SWR meter that works well with 50 mW isn't trivial, and making an SWR meter that's accurate at 2.4 GHz isn't easy, either. Homebrewing either one, let alone the combination, requires considerable experience and skill, which Chris indicates he doesn't have, if even crudely accurate results are desired. Suggestions of a directional coupler or slotted line including detector, obtained complete from eBay or other surplus source, sound like the best ideas to me. Impedance information is available from the slotted line, but either will give enough information to allow adjusting for the best match.

Another way to adjust the match would be to put a 50 ohm pad -- 6 dB or so should be plenty of attenuation -- between the signal generator and antenna to insure a 50 ohm source impedance. Then the match can be adjusted for maximum field strength as indicated by a field strength meter. That avoids the need for an SWR meter or any calibration or reference. All you need are fairly decent pad and coax, both of which are easy to come by.

Roy Lewallen, W7EL

Amos Keag wrote:
> I believe a "Slotted Line" would be among the better ways to measure SWR
> in this frequency range.
>
> Ask Cecil or Roy, regular contributors to this list, for their advice.
>
> AK
>
> Chris W wrote:
>
>> Can someone tell me where I can get an SWR meter that will work in the
>> 2.4 to 2.45 ghz range with 50 to 1000 mW? I have found several
>> websites that claim to tell you how to build your own, but none of
>> them have anywhere enough information for someone who doesn't already
>> know what they are doing.
>
>

2952. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:21:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g8ham19rfinf6sljergnvvb18kbp26uu19@4ax.com>
Source record: 68198

On Sun, 30 Oct 2005 20:15:51 GMT, Owen Duffy <owen@no.where> wrote:

>"SWR meters" like you buy off the shelf for HF/VHF/UHF are not
>commonly used at microwave frequencies, and you are talking about low
>end microwave frequencies.

Hi Owen,

You are about to make this too difficult.

>The nearest equivalent would be to get a directional coupler (a four
>port device with IN, OUT, FORWARD and REFLECTED ports

Actually, only three ports are needed because reducing the reflected
power is the only thing that matters, not the determination of SWR.
Having said that, a four port is good too....

>using a wattmeter such as a bolometer wattmeter like

You don't need an expensive power detector either - just a receiver
with an s-meter. This is a glorified detector perhaps, but cheaper in
that you probably already have one. If you have the receiver but no
s-meter, there is probably some point that could be tapped to do the
same thing.

>picking a project at 2.4GHz is
>possibly a most difficult one for learning the principles because
>instrumentation is so expensive and components are so small physically
>(good and bad, but mainly bad).

I would say that if you stick with just the antenna, you can swap:
good and bad, but mainly good.

The wavelength dimensions allow for table top experimentation and
easily discarded mistakes.

73's
Richard Clark, KB7QHC

2953. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:33:09 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <FSb9f.7653$q%.5429@newssvr12.news.prodigy.com>
Source record: 68200

Might look for items under "Farinon" - they made a 2 gig rig,
(PT-2000)? for telephone service , used 3cx100a5's and the rigs
were junk - but the ONE thing they had was a SWR/POWER meter , on
a panel - and many of those were salvaged to use with replacement
equipment. But, much of THAT is being retired, because of Cell sites
and other users are buying this equipment for access to those freqs
(replaceing with 6 GHz). Also, think Bird's meters are rated to 3 GHz
(I have a slug for 1 watt at 2000-2500 GHz), and thusly, also would
work with Dielectric, and their predicessor, Coaxial Dynamics meters
all of which are based on the BIRD 43 meters, physically, and electric-
ally. And, also Struthers 503 Military #'s TS-3686, A.K.A., URM-203
All (except for looks of the meter, are identical to the Bird 43and use
the same slugs as Bird manufactures (30 microamp movement).
Most likely, there are others, but these come to mind immediatly-
Jim - NN7K

Chris W wrote:
> Can someone tell me where I can get an SWR meter that will work in the
> 2.4 to 2.45 ghz range with 50 to 1000 mW? I have found several websites
> that claim to tell you how to build your own, but none of them have
> anywhere enough information for someone who doesn't already know what
> they are doing.

2954. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:33:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11maihtikj385c6@corp.supernews.com>
Source record: 68199

Reg Edwards wrote:
>
> A typical USA aggresive attitude towards foreigners. ;o)
>

I hope none of the readers of this newsgroup are tempted to consider Reg's attitude or abrasiveness as typical of his countrymen. I recently returned from three weeks in Great Britain, ranging from southern England to the Isle of Skye in Scotland, and to southern and central Wales. Like on my previous three trips there, I was treated very well by some of the nicest people I know and have met. I, my wife, and son were taken in as house guests by two very good friends in different parts of the country.

I'm sure that if I'd displayed the sort of attitude toward the British that Reg constantly does toward Americans, I would have had an entirely different experience. But I'd rather concentrate on what good people have in common. And there are a lot of good people in all countries. As well as a few grumps, of course.

Roy Lewallen, W7EL

2955. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:37:57 UTC
From: richardharrison@webtv.net
Message-ID: <16584-43654B45-763@storefull-3254.bay.webtv.net>
Source record: 68202

TRABEM wrote:
"I didn`t price it yet, but I need more technical information!"

There`s a better approach than high "Q" capacitors for a VLF loop. It`s been available since the year 1912 and much used soon after its invention.

Edwin H. Armstrong, 1890 - 1964 was radio`s most productive inventor. He invented regenerative control in 1912. I think he awakened his sister in the middle of the middle of the night screaming : "Eureka, I`ve found it!" or something to that effect. It wasn`t ubique for Howard Armstrong to discover things. Following controlled regeneration, he discovered the principle of the superhet in 1918, superregeneration in 1922, and the complete system of frequency modulation in 1933. He would battle RCA and Sarnoff for his entire life over control of his discoveries. I recall seeing a photo of the battery portable radio Howard built and gave his bride as a wedding present on an IEEE magazine cover.

Ever since 1912 there have been regenerative circuits introducing a fraction of a receiver`s output back into its input to enhance its amplification and sharpen its selectivity. Some of these are called "Q" multipliers.

A "Q" multiplier is an oscillator circuit which has its regenerative feedback adjusted just below the point of oscillation. It amplifies the signal many times and shrinks the apparent bandwidth the tuned circuit accepts. I`ve seen them used for reception of WWV at Boulder on 60 kHz and for other low frequencies. This seems easier than using super parts. Use some positive controlled feedback in the loop circuit. Adjust it for convenience.

Best regards, Richard Harrison, KB5WZI

2956. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:41:43 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <D_b9f.6905$ZP1.2377@dukeread11>
Source record: 68201

Roy Lewallen wrote:

> Thanks for the vote of confidence, but I don't have a ready answer.
>
> Making an HF SWR meter that works well with 50 mW isn't trivial, and
> making an SWR meter that's accurate at 2.4 GHz isn't easy, either.
> Homebrewing either one, let alone the combination, requires
> considerable experience and skill, which Chris indicates he doesn't have,

Experience in electronics, especially when it comes to RF, no. However,
I do have considerable skill. I can solder pretty good and when it
comes to mechanical components, on a bad day I can cut things accurate
to +/- .003" on a good day +/- .001" or better. So with detailed
instructions and drawings I can build it as long as it isn't so complex
that it isn't worth the time.

> if even crudely accurate results are desired. Suggestions of a
> directional coupler or slotted line including detector, obtained
> complete from eBay or other surplus source, sound like the best ideas
> to me. Impedance information is available from the slotted line, but
> either will give enough information to allow adjusting for the best
> match.
>
> Another way to adjust the match would be to put a 50 ohm pad -- 6 dB
> or so should be plenty of attenuation -- between the signal generator
> and antenna to insure a 50 ohm source impedance. Then the match can be
> adjusted for maximum field strength as indicated by a field strength
> meter. That avoids the need for an SWR meter or any calibration or
> reference. All you need are fairly decent pad and coax, both of which
> are easy to come by.

Sounds easy enough if I knew what a 50 ohm pad was. I guess I should
open that ARRL Antenna book and start reading from the beginning.

--
Chris (waiting for my call sign to show up on the FCC database) W

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2957. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:45:36 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <nfiam1diku5glv8b356bba2l9cr3i95ivp@4ax.com>
Source record: 68203

On Sun, 30 Oct 2005 14:21:39 -0800, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sun, 30 Oct 2005 20:15:51 GMT, Owen Duffy <owen@no.where> wrote:
>
>>"SWR meters" like you buy off the shelf for HF/VHF/UHF are not
>>commonly used at microwave frequencies, and you are talking about low
>>end microwave frequencies.
>
>Hi Owen,
>
>You are about to make this too difficult.

Richard, in the absence of the specific purpose for the meter, I was guided by the request for an "SWR meter" and offered a solution that would do what most modern "SWR meters" will do, measure power in each direction.

It was (IMHO) a fairly complete answer to a functional equivalent that has the needed sensitivity, without regard to what features were essential to the unstated task.

I agree that for some purposes, a directional coupler with a detector may provide indication of the least reflected power, even if not an absolute measure. (You could probably buy a used coupler, xtal detector, termination and some attenuators for modest $$$ on Ebay, but it won't be as cheap as going and buying a commercial panel array for 2.4GHz if the objective is just to make a high gain antenna.)

I think that the discussion demonstrates that an instrument without appropriate knowledge isn't the full answer, not even half ways there.

As for the choice of a sandbox for exploration of antennas and transmission line principles, I think that VHF has a lot of merit for hobbyists.

Owen
--

2958. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 22:53:45 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <df7f$43654f53$97d56aa2$5088@ALLTEL.NET>
Source record: 68204

Roy, I have to second your opinion. The last time the wife and I were in Europe, we were standing in the airport in Frankfurt heading to Italy, we both at the same time said "Let's go back to England".

We like to stay at the Bull in Gerrard's Cross and find the people are wonderful. I was readily accepted into the Denham flying club and enjoyed touring England via private plane. The huge chalk carvings south of London can only be appreciated from the air.

I picture Reg as an old socialist that time has passed by, and he has since decided to become a professional curmudgeon. He does provide humor from time to time. We must always remember - Everyone has a purpose in life, even if it is only as a bad example -.

I think of him every time I see the brother-in-law on "Keeping Up Appearances" on the BBC.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11maihtikj385c6@corp.supernews.com...
> Reg Edwards wrote:
> >
> > A typical USA aggresive attitude towards foreigners. ;o)
> >
>
> I hope none of the readers of this newsgroup are tempted to consider
> Reg's attitude or abrasiveness as typical of his countrymen. I recently
> returned from three weeks in Great Britain, ranging from southern
> England to the Isle of Skye in Scotland, and to southern and central
> Wales. Like on my previous three trips there, I was treated very well by
> some of the nicest people I know and have met. I, my wife, and son were
> taken in as house guests by two very good friends in different parts of
> the country.
>
> I'm sure that if I'd displayed the sort of attitude toward the British
> that Reg constantly does toward Americans, I would have had an entirely
> different experience. But I'd rather concentrate on what good people
> have in common. And there are a lot of good people in all countries. As
> well as a few grumps, of course.
>
> Roy Lewallen, W7EL

2959. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-30 23:50:50 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1130716250.857903.226190@g43g2000cwa.googlegroups.com>
Source record: 68205

Would it be possible that the question went by the following thing?

When we study directional or isotropic receiving antennas, we assume for example:

Punctual sources generating spherical wave fronts (convex) or infinitely far away punctual sources creating plane wave fronts for all the practical effects.
Under these conditions the receiving antennas are "outer" of the radiant sphere; this way, the effective area of a directional antenna represents a bigger external surface and it intercepts more energy than the corresponding to an isotropic antenna, then everything agrees with what we have learned on the directivity of the antennas, but in this example the conditions are inverted, now we don't have plane or convex fronts, we have concave fronts. The solution under the new conditions is different from the habitual one...

I think that the environment of the problem is similar that of the Kirchhoff law of thermal radiation: "a small sphere inside a radiant sphere".
I also think that the conditions of this problem could be similar (and therefore taken place artificially) to those of light`s receiver inside a luminous sphere.
In this case we proceed as when we study the entropía of an isolated system, in such a system the entropía can diminish, although that is not possible for the whole universe (I suppose this allows me to escape elegantly of Richard's question... ;> D

73´s for all, and thank you very much for your very interesting and instructive habitual postings.

Miguel Ghezzi (LU 6ETJ)

Spanish text for reference (withouts my translation errors).

¿Sería posible que la cuestion pasara por lo siguiente?:

Cuando estudiamos antenas receptoras direccionales o isotropicas asumimos por ejemplo:

Fuentes puntuales generando frentes de onda esféricos (convexos) o fuentes puntuales infinitamente alejadas que producen frentes de onda planos para todos los efectos practicos.
En estas condiciones las antenas receptoras están "fuera" de la esfera radiante; así, el área efectiva de una antena direccional representa una superficie exterior mayor e intercepta más energía que la correspondiente a una antena isotrópica, entonces todo concuerda con

lo que hemos aprendido sobre la directividad de las antenas, pero en este ejemplo las condiciones se invierten, ahora no tenemos frentes planos o convexos, sino de frentes cóncavos. La solución en las nuevas condiciones es diferente de la habitual...

Pienso que el entorno del problema es parecido al de la ley de Kirchhoff de la radiación térmica: "una pequeña esfera dentro de una esfera radiante".
También pienso que las condiciones de este problema pudieran ser similares (y por lo tanto producidas artificialmente), a las de un receptor de luz dentro de una esfera luminosa.
En este caso procedemos como cuando estudiamos la entropía de un sistema aislado, en tal sistema la entropía puede disminuir, aunque eso no sea posible para el universo entero (supongo que eso me permite huir elegantemnnte de la pregunta de Richard ;>D

73's para todos y muchas gracias por sus interesantes e instructivos escritos habituales.

Miguel Ghezzi (LU 6ETJ)

2960. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 01:37:12 UTC
From: Dan Richardson <>
Message-ID: <bvsam1dte1gbm6tk0m2tk29vmd2vu2vbql@4ax.com>
Source record: 68206

On Sun, 30 Oct 2005 17:53:45 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I think of him every time I see the brother-in-law on "Keeping Up
>Appearances" on the BBC.

Don't you feel that's a bit complimentary whats-his-name and a bit
derogatory to the brother-in-law.

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2961. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 02:45:29 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <dzf9f.6965$ZP1.4381@dukeread11>
Source record: 68207

Owen Duffy wrote:

>On Sat, 29 Oct 2005 23:27:13 -0500, Chris W <1qazse4@cox.net> wrote:
>
>
>
>>Can someone tell me where I can get an SWR meter that will work in the
>>2.4 to 2.45 ghz range with 50 to 1000 mW? I have found several websites
>>that claim to tell you how to build your own, but none of them have
>>anywhere enough information for someone who doesn't already know what
>>they are doing.
>>
>>
>
>Firstly, to answer your question.
>
>"SWR meters" like you buy off the shelf for HF/VHF/UHF are not
>commonly used at microwave frequencies, and you are talking about low
>end microwave frequencies.
>
>The nearest equivalent would be to get a directional coupler (a four
>port device with IN, OUT, FORWARD and REFLECTED ports where the
>FORWARD and REFLECTED ports are a sample of the forward and reflected
>(RF) waves). You then measure the RF power at the FORWARD and
>REFLECTED ports using a wattmeter such as a bolometer wattmeter like
>the HP432A, and calculate the SWR. Used directional couplers are not
>very expensive, but power meters are and they (or the bolometer heads)
>are very sensitive to physical damage.
>
>Second, so... now that you have measured / calculated SWR, what are
>you going to do with it. You haven't told us exactly what you are
>measuring, but SWR is caused by a multi-dimensional problem, and
>unless you know that a single adjustment will bring SWR into
>acceptable range, then SWR doesn't give you enough information.
>
>

That's a fair question. I am working on a few different antenna
designs, not my own design but other designs I find on the net. Such as
a wave guide antenna, collinear array and helix. In most cases part of
the design tells you to adjust a certain part till you have the lowest
SWR. That is what I plan to do with it. I am changing the designs
some, but only in a mechanical sense that I don't believe will have
anything but a positive effect on their electrical characteristics.
Such as in the wave guide, instead of using cans of some random size, I

found a copper pipe with a 3.5" ID that. Also instead of trying to mount a flat flange connector to a round tube (ugly), I have a method of directly attaching a coax cable to the tube with the center conductor being the radiating element.

>It is almost all CB enthusiasts, most hams, and apparently some WiFi
>enthusiasts that think SWR gives them all the answers.
>
>

I keep reading about keeping the SWR down, but I'm not sure if I thought this, I certainly don't now :)

>If you are genuinely interested in the technical aspects of
>transmission lines and antennas, picking a project at 2.4GHz is
>possibly a most difficult one for learning the principles because
>instrumentation is so expensive and components are so small physically
>(good and bad, but mainly bad).
>
>

due to physical limitations it is just a lot easier to work with the small stuff, and I do have the resources to make very accurate parts for the antennas. It's not that I can't work with the lower frequencies, larger antennas, it's just more work and takes up more workshop space. I may try a few at 440 though. Anything lower hz than that I will just buy an antenna and pay/con someone to mount it on my roof and be done with it.

--
Chris W

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2962. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 03:14:28 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <vh2bm1t19it581qhqotl7svglrtigj1i19@4ax.com>
Source record: 68209

On Sun, 30 Oct 2005 20:45:29 -0600, Chris W <1qazse4@cox.net> wrote:

>That's a fair question. I am working on a few different antenna
>designs, not my own design but other designs I find on the net. Such as
>a wave guide antenna, collinear array and helix. In most cases part of
>the design tells you to adjust a certain part till you have the lowest
>SWR. That is what I plan to do with it. I am changing the designs
>some, but only in a mechanical sense that I don't believe will have
>anything but a positive effect on their electrical characteristics.
>Such as in the wave guide, instead of using cans of some random size, I
>found a copper pipe with a 3.5" ID that. Also instead of trying to
>mount a flat flange connector to a round tube (ugly), I have a method of
>directly attaching a coax cable to the tube with the center conductor
>being the radiating element.

Nevertheless, there are good reasons to use a coax connector.

How are you weatherproofing this antenna, and what type / length of
coax are you using?

>
>>It is almost all CB enthusiasts, most hams, and apparently some WiFi
>>enthusiasts that think SWR gives them all the answers.
>>
>>
>
>I keep reading about keeping the SWR down, but I'm not sure if I thought
>this, I certainly don't now :)
>

The statement that measuring that the SWR is say, 3, doesn't tell you
what things to do to improve / fix it.

What adjustements do you have, are there matching screws near the
launch antenna to match it to the waveguide / space or are you going
to "dent tune" it? It may be worth looking for designs that
incorporate matching screws.

If you get that sorted, Richards suggestion of a simple coupler and
diode detector should be enough to match it up, but again I suggest
that learning how to calibrate a directional coupler at microwave
frequencies is jumping in the deep end. His other suggestion of a
simple field strength meter (perhaps another identical antenna +
detector) is a short cut to the performance you want without
considering the SWR as the lead to that outcome.

Owen
--

2963. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 03:34:18 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11mb4663b5c2dd2@corp.supernews.com>
Source record: 68210

Use the passive receiver to power a transistor switch to activate the transmitter. You should be able to induce enough power in the unit to switch some kind of transistor switch connecting the battery to the second stage of the unit. You would have to be careful that only the proper signal activates the unit though.

Dave WD9BDZ

fh03 wrote:

> thanks for your input guys. I havent been able to come online due to
> power outages caused by hurricane wilma.
>
> anyway. the reed switch mentioned would work, but the distance is the
> issue. I currently have an rfid reader and passive tag, but they too
> work only within a few inches. What I need is for the device to be
> activated within 5 feet of the receiver and from my understanding a
> reed switch cant do that.
>
> I know electronic toll payment systems seem to conserve battery, and
> thats what i need. Bascially I want to have a battery in the unit, but
> I dont want the battery to be connected until we're in that range. The
> reason passive devices dont work is because even though the antenna can
> provide an induced current, without a battery the tag doesnt have enough
> power to be able to transmit over say a few inches, let alone five feet.
> So we need battery in the transmitter. The user only carries a
> transmitter, so it doenst know when it is within range. I have a
> microcontroller that will transmit an ID as soon as it is powered up,
> but I dont want it to be on at all times, and I dont want a switch.
> I'll look into the "Hall Effect" now and see what its about.
>
> Thanks again guys, keep it coming.
>
>

2964. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 04:41:29 UTC
From: TRABEM <>
Message-ID: <596bm1dbuhcfcrsf6o94itbjettcrj3aqk@4ax.com>
Source record: 68211

Interesting Richard, thanks.

I read about these early pioneers years ago when I first became interested in ham radio and was fascinated by the history of early radio. There was a recent PBS program on the topic too, which I very much enjoyed.

Regenerative receivers are all that you say they are, and more. If it wasn't for the blasted gain control which has to be constantly twiddled, they would be more popular today I'm sure. Don't they have limited ability to separate the individual sidebands though, so they are more suited for AM and very narrow bandwidth CW?

I'm intrigued however.....

Lately I've been working with a QSD based receiver and am very impressed with it's simplicity and degree of performance. There are no non linear mixers, IF's, detectors or IF transformers, so high performance receivers are quite simple to build using this technique. In general, no rf stage is needed (or desired). All of the 'gain' comes after the detector, which is actually a high speed analog switch. But, recovering the audio without DSP based software (usually a sound card) is very difficult, needing large amounts of selective audio filters slowly tailor the audio response to an appropriate selectivity. Maybe some regeneration could be used to simplify this fairly complex analog filtering.

N7VE's high performance direct conversion receiver (the NC2030) has a highly detailed explanation of the post QSD audio using a hardware approach rather than the more typical computer/sound card approach.

It's good reading if you're interested in clean sounding cw without ringing and without over processed audio filtering crud mixed in..

While the job is simplified by modern op amps, it still takes a lot of stages of low Q filters to make the audio sound clean and crisp. A single high Q audio stage doesn't work well at all.

I wonder if regeneration could be implemented to simplify the complicated filtering needed to produce clean output from QSD based receiver?

I'm also wondering whether newer technology can automatically control the regeneration as needed, which might give a technological boost to an old concept and revive it in the process??!! It's happened before (example is newer high performance phasing type receivers are much easier to build with op amps and offer much higher performance in an

easier to build package).

I might try some regenerative feedback in some of the post detector audio stages next time i have the radio on the bench.

Thanks,

Tra

On Sun, 30 Oct 2005 16:37:57 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>TRABEM wrote:
>"I didn`t price it yet, but I need more technical information!"
>
>There`s a better approach than high "Q" capacitors for a VLF loop. It`s
>been available since the year 1912 and much used soon after its
>invention.
>
>Edwin H. Armstrong, 1890 - 1964 was radio`s most productive inventor. He
>invented regenerative control in 1912. I think he awakened his sister in
>the middle of the middle of the night screaming : "Eureka, I`ve found
>it!" or something to that effect. It wasn`t ubique for Howard Armstrong
>to discover things. Following controlled regeneration, he discovered the
>principle of the superhet in 1918, superregeneration in 1922, and the
>complete system of frequency modulation in 1933. He would battle RCA and
>Sarnoff for his entire life over control of his discoveries. I recall
>seeing a photo of the battery portable radio Howard built and gave his
>bride as a wedding present on an IEEE magazine cover.
>
>Ever since 1912 there have been regenerative circuits introducing a
>fraction of a receiver`s output back into its input to enhance its
>amplification and sharpen its selectivity. Some of these are called "Q"
>multipliers.
>
>A "Q" multiplier is an oscillator circuit which has its regenerative
>feedback adjusted just below the point of oscillation. It amplifies the
>signal many times and shrinks the apparent bandwidth the tuned circuit
>accepts. I`ve seen them used for reception of WWV at Boulder on 60 kHz
>and for other low frequencies. This seems easier than using super parts.
>Use some positive controlled feedback in the loop circuit. Adjust it for
>convenience.
>
>Best regards, Richard Harrison, KB5WZI

2965. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 04:51:13 UTC
From: TRABEM <>
Message-ID: <248bm15k3har6o1eb059ihm0g8j90pmnd1@4ax.com>
Source record: 68212

Thanks John,

I'll have a look. The newest Antenna Handbook I have is a 1950
version:>:

I've never been terribly impressed with the Leagues Antenna Handbook.
If the antenna section in the newer Radio Amateurs Handbook is any
indication, I probably won't buy one either. But, I'll have a look
see. The Reference section at the college library has a copy, so I'll
swing by and have a look to see if it's worth buying.

Ain't technology wonderful??? It took me less than 60 seconds to
search all the college libraries in New England because all the
offerings are online now! And, as luck would have it, I found one
right down the street (figuratively speaking).

Thanks for the suggestion, I'll check it out.

Regards,

T

On Sun, 30 Oct 2005 09:41:17 -0500, "John N9JG"
<john@gotwals.xremovey.com> wrote:

>Take a look in the latest issue of the ARRL Antenna Book. Chapter 5 is
>devoted entirely to loop antennas, and the chapter includes information
>about small loops. At the end of the chapter is a nice sized bibliography.
>
><TRABEM> wrote in message news:qam8m1dj5402c0r83dt1tmjt9bc061tf3i@4ax.com...
>[stuff]
>>
>> Getting back to last nights study session. Spent a couple of hours in
>> my 1987 ARRL Handbook and the remainder on the web looking at real
>> life loops published there. The web aspect was really disappointingly
>> devoid of technical jargon, it seems like most of the loop authors
>> just threw something up and it seemed to work-the end:>: Do people
>> just throw stuff up without understanding what they're doing, or do
>> they understand and just fail to document the theory??
>>
>> The Handbook tour was almost as bad. Very little was said about loops
>> except that which applied to the full wave resonant loop and how it
>> can serve as a driven element in a 1 lambda 'guad' type radiator.
>> Other than the theoretical wavelength, the correction factor for wire
>> diameter, there was not more than 2 paragraphs written with useful
>> information on short loops such as I am trying to put up.
>>

>[stuff]
>

2966. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 05:08:37 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <nFh9f.6974$ZP1.2357@dukeread11>
Source record: 68213

Owen Duffy wrote:

>On Sun, 30 Oct 2005 20:45:29 -0600, Chris W <1qazse4@cox.net> wrote:
>
>
>
>
>>That's a fair question. I am working on a few different antenna
>>designs, not my own design but other designs I find on the net. Such as
>>a wave guide antenna, collinear array and helix. In most cases part of
>>the design tells you to adjust a certain part till you have the lowest
>>SWR. That is what I plan to do with it. I am changing the designs
>>some, but only in a mechanical sense that I don't believe will have
>>anything but a positive effect on their electrical characteristics.
>>Such as in the wave guide, instead of using cans of some random size, I
>>found a copper pipe with a 3.5" ID that. Also instead of trying to
>>mount a flat flange connector to a round tube (ugly), I have a method of
>>directly attaching a coax cable to the tube with the center conductor
>>being the radiating element.
>>
>>
>
>Nevertheless, there are good reasons to use a coax connector.
>
>How are you weatherproofing this antenna, and what type / length of
>coax are you using?
>
>
I have a 4' section of LMR 400 with a female N connector on one end.
That connects to the pigtail adapter I have for my wifi pc card. It's
hard to describe with out a photo but the connection of the cable to the
wave guide will be weather tight. So the only way any moisture could
get in is through the far end of the copper pipe. If I ever permanently
mount this antenna, some plastic glued to the end of the pipe should
work fine.

>
>
>
>>>It is almost all CB enthusiasts, most hams, and apparently some WiFi
>>>enthusiasts that think SWR gives them all the answers.
>>>
>>>
>>>
>>>

>>I keep reading about keeping the SWR down, but I'm not sure if I thought
>>this, I certainly don't now :)
>>
>>
>>
>
>The statement that measuring that the SWR is say, 3, doesn't tell you
>what things to do to improve / fix it.
>
>
I'm not sure what you are trying to say here.

>What adjustements do you have, are there matching screws near the
>launch antenna to match it to the waveguide / space or are you going
>to "dent tune" it? It may be worth looking for designs that
>incorporate matching screws.
>
>
In the case of the wave guide I think the length of the radiating element is the main adjustment. Also the distance from the back of the wave guide to the radiating element but I didn't do anything to make that adjustable, I just did the calculation and had my brother drill the hole with his milling machine, it should be with in +/- .001" of where I calculated it. I may decide to make it adjustable in future versions if this one works out good. The problem is it is hard to come by short lengths of 3 1/2" copper pipe, 3" is easier to come by but it is on the small side from the calculations I made.

For the collinear array, 2 of the 3 web sites I have found say to move a decoupling element up and down near the feed point to minimize SWR. They all do something a little different on each end of the antenna and I'm not sure if one is right, all are wrong, or it is just different ways of doing the same thing. Here are the 3 sites I have found on that design.

http://www.guerrilla.net/reference/antennas/2ghz_collinear_omni/
http://www.rason.org/Projects/collant/collant.htm
http://www.repeater-builder.com/antenna/wa6svt.html

For the helix in the ARRL Antenna book it says you have to match the impedance of the antenna to the coax and it says to do that you can adjust the spacing of the wire in the first turn to get it closer to the ground plane and use an SWR meter to know when you have it right. I'm reading this from page 19-29 of the 19th edition of the ARRL Antenna book. I think this design mod of the standard helix is from K6ZMW published in the June 1981 issue of QST.

--
Chris W

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2967. Re: antenna lengths

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 05:35:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mbb9ddjk54e14@corp.supernews.com>
Source record: 68214

Dan Richardson wrote:
> On Sun, 30 Oct 2005 17:53:45 -0500, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>I think of him every time I see the brother-in-law on "Keeping Up
>>Appearances" on the BBC.
>
>
> Don't you feel that's a bit complimentary whats-his-name and a bit
> derogatory to the brother-in-law.
>
> Danny, K6MHE

Samuel Clemens (Mark Twain) is one of the characters in one of Harry Turtledove's excellent "alternate history" books. In the story, Clemens is living in San Francisco and has a dog named after the mayor, whom he detests. After a particularly frustrating meeting with the mayor, Clemens returns home and apologizes to the dog -- "When I named you," he says, "I thought I was insulting the mayor. But it turns out that I was insulting you."

Roy Lewallen, W7EL

2968. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 05:46:51 UTC
From: reality@america.com
Message-ID: <7nbbm11nn48egc1078ciu9l3cfls6u8g3l@4ax.com>
Source record: 68215

On Sun, 30 Oct 2005 23:08:37 -0600, Chris W <1qazse4@cox.net> wrote:

>Owen Duffy wrote:
>
>>On Sun, 30 Oct 2005 20:45:29 -0600, Chris W <1qazse4@cox.net> wrote:
>>
>>
>>
>>
>>>That's a fair question. I am working on a few different antenna
>>>designs, not my own design but other designs I find on the net. Such as
>>>a wave guide antenna, collinear array and helix. In most cases part of
>>>the design tells you to adjust a certain part till you have the lowest
>>>SWR. That is what I plan to do with it. I am changing the designs
>>>some, but only in a mechanical sense that I don't believe will have
>>>anything but a positive effect on their electrical characteristics.
>>>Such as in the wave guide, instead of using cans of some random size, I
>>>found a copper pipe with a 3.5" ID that. Also instead of trying to
>>>mount a flat flange connector to a round tube (ugly), I have a method of
>>>directly attaching a coax cable to the tube with the center conductor
>>>being the radiating element.
>>>
>>>
>>
>>Nevertheless, there are good reasons to use a coax connector.
>>
>>How are you weatherproofing this antenna, and what type / length of
>>coax are you using?
>>
>>
>I have a 4' section of LMR 400 with a female N connector on one end.
>That connects to the pigtail adapter I have for my wifi pc card. It's
>hard to describe with out a photo but the connection of the cable to the
>wave guide will be weather tight. So the only way any moisture could
>get in is through the far end of the copper pipe. If I ever permanently
>mount this antenna, some plastic glued to the end of the pipe should
>work fine.
>
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>>
>>
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>>>>It is almost all CB enthusiasts, most hams, and apparently some WiFi
>>>>enthusiasts that think SWR gives them all the answers.

>>>>
>>>>
>>>>
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>>>I keep reading about keeping the SWR down, but I'm not sure if I thought
>>>this, I certainly don't now :)
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>>>
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>>The statement that measuring that the SWR is say, 3, doesn't tell you
>>what things to do to improve / fix it.
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>>
>I'm not sure what you are trying to say here.
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>>What adjustements do you have, are there matching screws near the
>>launch antenna to match it to the waveguide / space or are you going
>>to "dent tune" it? It may be worth looking for designs that
>>incorporate matching screws.
>>
>>
>In the case of the wave guide I think the length of the radiating
>element is the main adjustment. Also the distance from the back of the
>wave guide to the radiating element but I didn't do anything to make
>that adjustable, I just did the calculation and had my brother drill the
>hole with his milling machine, it should be with in +/- .001" of where I
>calculated it. I may decide to make it adjustable in future versions if
>this one works out good. The problem is it is hard to come by short
>lengths of 3 1/2" copper pipe, 3" is easier to come by but it is on the
>small side from the calculations I made.
>
>For the collinear array, 2 of the 3 web sites I have found say to move a
>decoupling element up and down near the feed point to minimize SWR.
>They all do something a little different on each end of the antenna and
>I'm not sure if one is right, all are wrong, or it is just different
>ways of doing the same thing. Here are the 3 sites I have found on that
>design.
>
>http://www.guerrilla.net/reference/antennas/2ghz_collinear_omni/
>http://www.rason.org/Projects/collant/collant.htm
>http://www.repeater-builder.com/antenna/wa6svt.html
>
>
>For the helix in the ARRL Antenna book it says you have to match the
>impedance of the antenna to the coax and it says to do that you can
>adjust the spacing of the wire in the first turn to get it closer to the
>ground plane and use an SWR meter to know when you have it right. I'm
>reading this from page 19-29 of the 19th edition of the ARRL Antenna
>book. I think this design mod of the standard helix is from K6ZMW

>published in the June 1981 issue of QST.

Not that it helps you any, but I had to smile when reading your last sentence - I know K6ZMW from work. FYI, his work background is in the RF Design group for a satellite company so he does indeed know a thing or two about antennas.

2969. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 05:49:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <oebbm1hnfp66hsr6fc3eekqauck36joek1@4ax.com>
Source record: 68216

On Sun, 30 Oct 2005 23:41:29 -0500, TRABEM <> wrote:
>In general, no rf stage is needed (or desired).

In general, no rf stage has been designed into a receiver for a
quarter century. Hence touting it as a hallmark is rather pedestrian.

>But, recovering the audio without DSP based software (usually
>a sound card) is very difficult, needing large amounts of selective
>audio filters slowly tailor the audio response to an appropriate
>selectivity.

Even there, bi-quad active filters have been doing this for those same
25 - 30 years, and quite smartly too.

You need to return to basics a la Robert Pease who does a lot of
informational multimedia for National Semi these days. He properly
offers that so much that has been handed over to binary twiddling is
such a step backwards to accomplishing a job better handled in the
linear domain.

73's
Richard Clark, KB7QHC

2970. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 05:55:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f6cbm1tv1e2qhm5392tl7b1lbd1i4kos0e@4ax.com>
Source record: 68217

On 30 Oct 2005 15:50:50 -0800, "lu6etj" <lu6etj@gmail.com> wrote:

>although that is
>not possible for the whole universe (I suppose this allows me to escape
>elegantly of Richard's question... ;> D
>
>73=B4s for all, and thank you very much for your very interesting and
>instructive habitual postings.

Hi Miguel,

Can there be an escape? Ron's question was posed with an impossible
proposition. A collapsing sphere of electromagnetic energy? This has
so many so many fantastic presumptions built in.

I hope this translates well for you (it does not make sense in any
language).

73's
Richard Clark, KB7QHC

2971. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 12:12:52 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835436 60A4434@zetnet.co.uk>
Source record: 68218

If you can, manufacture/fabricate a catapult 6" in front of a fishing reel that has a closed faced spool that has 100 Yards of 6Lb monofilament line on the spool.
You might be able to get the local kid to sell you his catapult.

Fix them to a piece of wood with the reel at the rear of your lenght of wood "upside down" to the catapult. The reel can be fixed on the wood with insulting tape on the reel feet. The catapult needs fixing on the wood, at the end. Make a fixing to steady it up on the wooden bar. The catapult hand grip goes below the wooden bar.

If you use a lenght of wood long enough to support a stock piece that you can pull into your shoulder, this will help in making the target alot easier to "hit" and will give support at the rear, the catapult handle giving support at the front, thus enableing your other hand to pull the catapult rubber back.

After tying the line to the weight, (use a pear shaped lead) place the weight in the catapult pouch, release the bail pin and the lead weight is shot over the tree limb. After reaching and acheiving the desired target!! remove the lead weight, tie a nylon cord to it and "reel the line back in"

Remove line after reeling back in, put assembly away. Tie your dogbone or insulating piece that's on the end of your wire to the cord, pull your nylon cord back and anchor to anything usable. Jobs a good un. ezy pezy
Sounds dead long winded, but simple really. Dave
--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And Technology
Share What You Know, Learn What You Dont.

2972. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 13:17:34 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <ZOo9f.6984$ZP1.3955@dukeread11>
Source record: 68219

Chris W wrote:

> Owen Duffy wrote:

>>It is almost all CB enthusiasts, most hams, and apparently some WiFi
>>enthusiasts that think SWR gives them all the answers.
>>
>>
>
> I keep reading about keeping the SWR down, but I'm not sure if I thought
> this, I certainly don't now :)

SWR isn't the only important thing to consider. SWR BANDWIDTH is probably more important. once you have it established at its lowest point, you then have to measure the 3 DB dropoff points to determine antenna efficiency. the narrower this band, the higher the antenna efficiency (within limits)

However, given the nature of WiFi signals (> 500 Mhz wide), this presents some unusual problems to the mix: balancing Antena efficiency without losing performance.

That turns out to be complicated (more so considering that you are working in the microwave bands here and very small changes in antenna length/width can have huge impacts on operation).

Now, I have a fair amount of knowledge vis a vis antenna design, but I am, by no means, an expert on them (even less for microwave designs). I would suggest that one check out a few of the ARRL books on antenna design.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

2973. Re: HIGH Q CAPS FOR VLF LOOP ANTENNA?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 15:25:51 UTC
From: TRABEM <>
Message-ID: <5ebcm1tki8hgigati60d85letd6ikutqms@4ax.com>
Source record: 68220

On Sun, 30 Oct 2005 21:49:08 -0800, Richard Clark <kb7qhc@comcast.net>
Hi Richard,

>>In general, no rf stage is needed (or desired).
>
>In general, no rf stage has been designed into a receiver for a
>quarter century. Hence touting it as a hallmark is rather pedestrian.
>

True, but few of the inexpensive receivers that operate without rf stages perform very well. And I don't know any commercial application that uses regenerative feedback to gain selectivity in a real world receiver application. Typically, receivers that perform well have many (post detector) poles of modest Q filter stages to prevent undesirable features such as ringing. This uses alot of hardware, especially precision resistors and capacitors.

Yes, scaf filters are relatively clean, but it's still a multichip solution needing quite a few R's and C's.

>>But, recovering the audio without DSP based software (usually
>>a sound card) is very difficult, needing large amounts of selective
>>audio filters slowly tailor the audio response to an appropriate
>>selectivity.
>
>Even there, bi-quad active filters have been doing this for those same
>25 - 30 years, and quite smartly too.
>
>You need to return to basics a la Robert Pease who does a lot of
>informational multimedia for National Semi these days. He properly
>offers that so much that has been handed over to binary twiddling is
>such a step backwards to accomplishing a job better handled in the
>linear domain.
>

There's room for both. KK7P's single chip digital solution to processing the I and Q from the detector to the speaker is quite attractive. It offers the potential of high performance while freeing us from the sound card/computer leash (and the big three Japanese corportions that dominate the ham radio transceiver industry) that currently restrains us. It's the missing link that makes high performance digital solutions into a 'free standing' piece of hardware.

It appears to me that DSP uses a great deal of power to do the job though. In practical terms, what we save in portability and bulk with

a single chip digital solution might be minimal because we have to carry bigger batteries to make it happen in a portable environment.

Like I said, there's room for both...and small changes in hardware availability constantly move the equation regarding 'what's best for me' in varying directions.

I prefer to know both digital and analog worlds though instead of limiting myself by only knowing 1 possible option.

Since the original responder wrote about regenerative methods however, I will keep my eye peeled for a practical means to implement it with modern technology components. If it was implemented in the post detector audio processing, it might minimize hardware needed to achieve high selectivity with clean sounding audio. I thank him for the reality check regarding this possibly useful method.

Regards,

T

2974. WTB: 1 Section 25G in DFW area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 16:12:21 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <Fnr9f.7204$7s1.6016@fe04.lga>
Source record: 68221

I need one section of 25G in the Dallas/Ft Worth area. Please contact me at w5gt@arrl.net.

Thanks

Dave - W5GT

2975. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 16:33:09 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11mchqajdo0hj2d@corp.supernews.com>
Source record: 68222

You left out the most expensive part -- a 2.4 Gig signal generator isn't
cheap OR easy to come by.

Jim

Suggestions of a directional
> coupler or slotted line including detector, obtained complete from eBay or
> other surplus source, sound like the best ideas to me. Impedance
> information is available from the slotted line, but either will give
> enough information to allow adjusting for the best match.

2976. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 17:32:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mclac3eu4m9ac@corp.supernews.com>
Source record: 68223

RST Engineering wrote:
> You left out the most expensive part -- a 2.4 Gig signal generator
> isn't cheap OR easy to come by.
>
> Jim
>

True, but because the OP was looking for an SWR meter I assumed he had some sort of signal source. If he doesn't, neither an SWR meter nor any other of the suggested methods will be of much use.

Roy Lewallen, W7EL

2977. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 17:35:09 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1130780109.071745.6290@g14g2000cwa.googlegroups.com>
Source record: 68224

Hello Richard (my middle name is Ricardo = Richard. We are
"Tocayos"...)

Richard wrote:

> Can there be an escape? Ron's question was posed with an impossible
> proposition. A collapsing sphere of electromagnetic energy?

Ron wrote:

> Assume an incoming rf signal has exactly the same strength in all 3
> dimensions i.e., completely omnidirectional.

If I have understood well Ron's question...

What about a number tending (spreading?, going to? - a limit, as in
calculus) to infinite, of coherent punctual electromagnetic identical
sources on the inner surface of a sphere with testing antennas in
center of it? (I think it isn't necessary neither coherence or
identicals sources. Noise sources fix well in my interpretation of the
concept that (I believe) Ron it wanted expose to us).

Can it these conditions to be thought?
Could it be simulated with an electromagnetic CAD as FEMLAB?
Are they agree with Ron question?

What do you say Ron?

Miguel Ghezzi (LU 6ETJ)

PS: I have another physical doubt, if you can help me.
Can a real DC current radiate electromagnetic energy?.
It is not captious or cheat question. I think yes, but I don't want to
condition your answers with my hypotesis.

Thank you in advance for your answers.

Richard escribió:

> Puede haber una salida?. La pregunta de Ron fue presentada con
> proposicion imposible. Una esfera de energía electromagnetica colapsandose?

Ron escribio:

> Asuma una señal de rf entrante que tiene exactamente la misma intensidad en las tres
dimensioes, por ej, que es completamente omnidireccional.

Si he comprendido bien la pregunta de Ron...

Que tal un numero tendiendo a infinito de fuentes electromagneticas puntuales identicas, situadas sobre la superficie interior de una esfera y las antenas de prueba en el centro de la misma? (creo que no es necesaria ni coherencia ni fuentes identicas, fuentes de ruido van bien en mi interpretacion del concepto que (creo) que Ron quiso presentarnos.

Pueden estas condiciones ser pensadas?
Podrian simularse en un CAD de electromagnetismo, tal como FEMLAB?
Estan ellas de acuerdo con la pregunta de Ron?

Que dices tu Ron?

Miguel Ghezzi (LU 6ETJ)

PS: Tengo otra duda física si ustedes pueden ayudarme. Puede una CC real irradiar energía electromagnetica?
No es una pregunta capciosa ni una broma. Yo creo que si, pero no quiero condicionar sus respuestas con mi hipotesis.

Agradezco sus respuestas por adelantado.

2978. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 18:16:07 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk5nm2$ji1$1@news.service.uci.edu>
Source record: 68076

Richard Clark wrote:

> On 30 Oct 2005 15:50:50 -0800, "lu6etj" <lu6etj@gmail.com> wrote:
>
>
>>although that is
>>not possible for the whole universe (I suppose this allows me to escape
>>elegantly of Richard's question... ;> D
>>
>>73=B4s for all, and thank you very much for your very interesting and
>>instructive habitual postings.
>
>
> Hi Miguel,
>
> Can there be an escape? Ron's question was posed with an impossible
> proposition. A collapsing sphere of electromagnetic energy? This has
> so many so many fantastic presumptions built in.

On all but the smallest of scales, the sky is quite uniform in its
luminosity. It can hardly be described as a "collapsing sphere"; not
even from the point of view of a geocentric model of the universe.

ac6xg

2979. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 18:26:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g1ocm19m470m1mi77annjuf20tm248vcp1@4ax.com>
Source record: 68225

On 31 Oct 2005 09:35:09 -0800, "lu6etj" <lu6etj@gmail.com> wrote:

>PS: I have another physical doubt, if you can help me.
>Can a real DC current radiate electromagnetic energy?.
>It is not captious [capricious] or cheat [trick] question. I think yes, but I don't want to
>condition your answers with my hypotesis.

Hi Miguel,

A "real" DC current?

Yes.

A "real" DC current (at some point in time) starts - and stops. It is at each of these two points that the step change offers radiation. The "time" it takes to go from one level to the other defines that frequency, and its harmonics.

A "perfect" DC current has always been on, and will always be on. No change, no radiation.

73's
Richard Clark, KB7QHC

2980. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 18:36:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3nocm11d7h0ljkon3km9c5eggnu5mvhepl@4ax.com>
Source record: 68077

On Mon, 31 Oct 2005 10:16:07 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>On all but the smallest of scales, the sky is quite uniform in its
>luminosity. It can hardly be described as a "collapsing sphere"; not
>even from the point of view of a geocentric model of the universe.

Hi Jim,

Perhaps not, but "quite uniform" is rather in the eye of the beholder.
When I take panagraphic photographs (a broad scale), it is quite
evident that the uniformity is not very uniform. Another variable is
that polarization is not very uniform either (which, photographically
may be saying the same thing).

The eye is a wonderful device, but not very precise.

73's
Richard Clark, KB7QHC

2981. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 18:37:15 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk5otv$k61$1@news.service.uci.edu>
Source record: 68078

Richard Clark wrote:

> On Mon, 31 Oct 2005 10:16:07 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>On all but the smallest of scales, the sky is quite uniform in its
>>luminosity. It can hardly be described as a "collapsing sphere"; not
>>even from the point of view of a geocentric model of the universe.
>
>
> Hi Jim,
>
> Perhaps not, but "quite uniform" is rather in the eye of the beholder.

It's quite impossible to behold anywhere near the smallest of scales by
eye, Richard.

> When I take panagraphic photographs (a broad scale), it is quite
> evident that the uniformity is not very uniform. Another variable is
> that polarization is not very uniform either (which, photographically
> may be saying the same thing).
>
> The eye is a wonderful device, but not very precise.

It's like the internet in that regard, where people, with just the right
amounts of terminology and pomposity, can assume the status of expert at
just about anything and everything! ;-)

ac6xg

2982. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 20:07:29 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1130789249.346785.153520@o13g2000cwo.googlegroups.com>
Source record: 68079

Hi, all folks and Dear Richard (Is right this salutation?)

Thanks for your patience to me...

Imagine a simple DC generator in steady state, the closing circuit (sure, with a serie resistance, no short), forms a physical loop, the current travel accross it in a uniform circular movement, therefore charges have a centripet acceleration => charges accelerated = electromagnétic radiation.

Electron orbiting nucleus problem -> quantum theory solution.

Am I in the correct way?. DC current produce electromagnetic radiation (on solenoid more, of course)?

I never read something in such a sense (except in atomic theory, of course), but I find reasonable to suppose it.

Thanks in advance

Miguel Ghezzi (LU 6ETJ)

Hola a todos y estimado Richard. (es correcto saludar asi?)

Gracias por su paciencia.

Imagine un simple generador de CC en regimen estacionario, el circuito que lo cierra (por supuesto con una resitenci, no en corto) forma un lazo físico. La corriente viaja a traves de el en un movimiento circular uniforme, por lo tanto las cargas poseen una aceleracion centripeta => cargas aceleradas = radiacion electromagnetica...

El problema del electron orbitando el nucleo -> solucion de la teoria cuantica.

Estoy en lo correcto? La corriente continua produce radiacion electromagnetica (mas en un solenoide, por supuesto)?

Nunca lei nada en tal sentido (excepto en la teoria atomica, por supuesto) pero me parece razonable suponerlo

Miguel Ghezzi (LU 6ETJ)

2983. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 20:30:15 UTC
From: "Steve - www.ukspeedtraps.co.uk" <ask@please.com>
Message-ID: <dk5usn$r89$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68080

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11ma55ns0dmj7b9@corp.supernews.com...
>A half wave antenna such as the AEA Hot Rod or the MFJ copy of it works
>well with no ground plane or trailing wire. The models I mentioned are
>telescoping, so you can collapse them when not walking.
>
> Roy Lewallen, W7EL
>
> Steve - www.ukspeedtraps.co.uk wrote:
>> Hi All
>>
>> I want to construct a backpack antenna that can be left on my rucksack
>> and used when walking.
>>
>> The plan is to have a FT817 on my waist and the antenna fitted to the
>> rucksack. I been playing with a mobile antenna today and can not get the
>> SWR down without trailing a wire. I don't want a wire trailing behind me.
>>
>> Any ideas for a 2m antenna that can be left on a rucksack when walking
>> and used for transmittion. Height is not a major problem but it has to
>> realistic and robust.
>>
>> Thanks
>> Steve
>>

Many thanks for the help, some good usefull stuff.
Thanks
Steve

The UK SpeedTrap Guide" @ www.ukspeedtraps.co.uk
The UK Weather Guide" @ www.ukstorms.com

2984. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 21:57:46 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <urw9f.38$Ea3.18088@twister.southeast.rr.com>
Source record: 68082

Question (repeated here for convenience):

Assume a receiving antenna is in the center of a sphere and the
received signal is coming in equal amounts from all points on the
surface of the sphere. Which receiving antenna would capture more
power, an omni or a high gain beam? There are no noise and no losses.

First, thanks for all the comments. They have helped me better
understand the answer. I am leaning toward the belief that the omni
(isotropic) antenna would capture more power and, as odd as it may
seem, would have more gain than a high gain beam (or any other
directional antenna for that matter). Here is my thinking:

This is a very unusual RF field. Usually the field is assumed to be
planar with coherent rays - then antennas behave as expected. But this
field originates uniformly from all points on the surface of a sphere.
It does not spread but converges at the focal point of the sphere.

An isotropic antenna placed at the focal point would collect all of
the rays whereas a directional antenna at would not.

Therefore, in this particular situation, the isotropic would have
higher gain and capture more power than any directional antenna.

Please correct me if I am wrong.

Ron, W4TQT

2985. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 22:01:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ra2dm1pdhnk134er5ubpcnncvpih65gmet@4ax.com>
Source record: 68081

On 31 Oct 2005 12:07:29 -0800, "lu6etj" <lu6etj@gmail.com> wrote:

>Hi, all folks and Dear Richard (Is right this salutation?)

Hi Miguel,

It is fine.

>Imagine a simple DC generator in steady state, the closing circuit
>(sure, with a serie resistance, no short), forms a physical loop, the
>current travel accross it in a uniform circular movement, therefore
>charges have a centripet acceleration =3D> charges accelerated =3D
>electromagn=E9tic radiation.

You are using acceleration in its usual sense. Unfortunately, it is
based on a poor description for radiation. It is a poor description
in English, or any language.

>Electron orbiting nucleus problem -> quantum theory solution.

Circular motion is always acceleration, and orbital electrons are
always in circular motion. They are not always radiating. This one
observation is enough to invalidate the general description of
accelerating electrons causing radiation (it takes more than that).

An orbital electron only radiates when it changes orbital levels to a
LOWER orbit. Read about deBroglie waves. When an Hydrogen electron
in the 3rd orbital falls (acceleration) to the 2nd orbital, it
radiates a photon with a wavelength of 653 nM. You see this every
night with Neon signs.

>Am I in the correct way?. DC current produce electromagnetic radiation
>(on solenoid more, of course)?

No.

>I never read something in such a sense (except in atomic theory, of
>course), but I find reasonable to suppose it.

Reasonable, as I have described above, but not logical.

73's
Richard Clark, KB7QHC

2986. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 22:56:24 UTC
From: dplatt@radagast.org
Message-ID: <11md88ojem25ac1@corp.supernews.com>
Source record: 68083

>Question (repeated here for convenience):
>---
>Assume a receiving antenna is in the center of a sphere and the
>received signal is coming in equal amounts from all points on the
>surface of the sphere. Which receiving antenna would capture more
>power, an omni or a high gain beam? There are no noise and no losses.
>---
>
>First, thanks for all the comments. They have helped me better
>understand the answer. I am leaning toward the belief that the omni
>(isotropic) antenna would capture more power and, as odd as it may
>seem, would have more gain than a high gain beam (or any other
>directional antenna for that matter). Here is my thinking:
>
>This is a very unusual RF field. Usually the field is assumed to be
>planar with coherent rays - then antennas behave as expected. But this
>field originates uniformly from all points on the surface of a sphere.
>It does not spread but converges at the focal point of the sphere.
>
>An isotropic antenna placed at the focal point would collect all of
>the rays whereas a directional antenna at would not.
>
>Therefore, in this particular situation, the isotropic would have
>higher gain and capture more power than any directional antenna.
>
>Please correct me if I am wrong.

Well, for one thing, your model assumes something which does not and
cannot exist. It assumes the existence of an actual isotropic
antenna. Such cannot actually be constructed - there's no way to get
a truly omnidirectional radiation pattern without violating Maxwell's
equations.

I suspect that you'll find the same problem existing, in the reverse
direction, if you try to construct the sort of RF field you're talking
about. If you try to specify the E-plane and H-plane field components
for a uniform, arriving-from-all-points-of-a-sphere field, I believe
that you'll find that you can't achieve your goal: there will always
be "seams" (abrupt discontinuities or cancellations) in the field
components in some directions.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will

boycott any company which has the gall to send me such ads!

2987. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 23:33:08 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk6abssqk1@news.service.uci.edu>
Source record: 68084

Ron wrote:

> Question (repeated here for convenience):
> ----------
> Assume a receiving antenna is in the center of a sphere and the received
> signal is coming in equal amounts from all points on the surface of the
> sphere. Which receiving antenna would capture more power, an omni or a
> high gain beam? There are no noise and no losses.
> ----------
>
> First, thanks for all the comments. They have helped me better
> understand the answer. I am leaning toward the belief that the omni
> (isotropic) antenna would capture more power and, as odd as it may seem,
> would have more gain than a high gain beam (or any other directional
> antenna for that matter). Here is my thinking:
>
> This is a very unusual RF field. Usually the field is assumed to be
> planar with coherent rays - then antennas behave as expected. But this
> field originates uniformly from all points on the surface of a sphere.

Uniformly inward, outward, or both?

> It does not spread but converges at the focal point of the sphere.

By focal point of the sphere do you mean the center of the sphere? How
big of a sphere are we talking about, and where is the antenna in
relation to the sphere?

> An isotropic antenna placed at the focal point would collect all of the
> rays whereas a directional antenna at would not.

Probably.

> Therefore, in this particular situation, the isotropic would have higher
> gain and capture more power than any directional antenna.

Not according to the accepted use of the term 'gain' in connection with
antennas.

> Please correct me if I am wrong.
>
> Ron, W4TQT

In the instance you describe, the antenna with gain will pick up less
signal than an antenna without gain. The gain antenna will be able to
sense signal arriving from only a fraction of the sphere, whereas the
isotropic antenna responds to signals arriving from the entire 4-pi

sphere. Therefore, the antenna with less gain produces the greater signal level. But this should often be the case when a directional antenna is pointed away from most of the signal. The omni, on the other hand, is 'pointed toward' this particular signal in all directions.

Out of curiosity, what kind of signal source are you interested in?

ac6xg

2988. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-10-31 23:56:38 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <jibdm1ljqk9kso3et4rgmfk1bjlim9clhq@4ax.com>
Source record: 68085

On Mon, 31 Oct 2005 12:12:52 GMT, Dave Piggin <d.piggin@zetnet.co.uk>
wrote:

>If you can, manufacture/fabricate a catapult 6" in front of a fishing
>reel that has a closed faced spool that has 100 Yards of 6Lb
>monofilament line on the spool.
>You might be able to get the local kid to sell you his catapult.
>
Why not just use the rod and reel? Admittedly some can throw farther
than they can cast. OTOH in the city of Midland it is illegal to use
said catapult, bow, or other mechanical means of throwing things. At
least they've not outlawed the use of the rod and reel. Myself, I
like a good cross bow. OTOH you'd need a lot more than a 100 yards of
monofilament.<:-))

Still it's not problem here as I live out in the country.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

<snip>

2989. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 01:13:09 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9700AF3561EADspectrumhogstarbandn@207.106.93.175>
Source record: 68086

> Why not just use the rod and reel? Admittedly some can throw farther
> than they can cast.

I doubt there are very many people who can either throw, or cast a line, at 70 feet, over a particular branch of a rather densely packed conifer tree. I can do it, however, with a slingshot. A bow or crossbow would be even better, I'll admit.

Ed

2990. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 01:42:52 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <wKz9f.56$Ea3.34417@twister.southeast.rr.com>
Source record: 68087

This was only a mental exercise to help me visualize the concept of
gain. No resemblance to a real antenna or RF field was intended.
Thinking about it has helped me understand what antenna gain is
(assuming my conclusions are correct). And that's all it was supposed
to do. I hope it has helped someone else to do the same.

Ron

Jim Kelley wrote:
>
>
> Ron wrote:
>
>> Question (repeated here for convenience):
>> ---
>> Assume a receiving antenna is in the center of a sphere and the
>> received signal is coming in equal amounts from all points on the
>> surface of the sphere. Which receiving antenna would capture more
>> power, an omni or a high gain beam? There are no noise and no losses.
>> ---
>>
>> First, thanks for all the comments. They have helped me better
>> understand the answer. I am leaning toward the belief that the omni
>> (isotropic) antenna would capture more power and, as odd as it may
>> seem, would have more gain than a high gain beam (or any other
>> directional antenna for that matter). Here is my thinking:
>>
>> This is a very unusual RF field. Usually the field is assumed to be
>> planar with coherent rays - then antennas behave as expected. But this
>> field originates uniformly from all points on the surface of a sphere.
>
>
> Uniformly inward, outward, or both?
>
>> It does not spread but converges at the focal point of the sphere.
>
>
> By focal point of the sphere do you mean the center of the sphere? How
> big of a sphere are we talking about, and where is the antenna in
> relation to the sphere?
>
>> An isotropic antenna placed at the focal point would collect all of
>> the rays whereas a directional antenna at would not.
>
>

> Probably.
>
>> Therefore, in this particular situation, the isotropic would have
>> higher gain and capture more power than any directional antenna.
>
>
> Not according to the accepted use of the term 'gain' in connection with
> antennas.
>
>> Please correct me if I am wrong.
>>
>> Ron, W4TQT
>
>
> In the instance you describe, the antenna with gain will pick up less
> signal than an antenna without gain. The gain antenna will be able to
> sense signal arriving from only a fraction of the sphere, whereas the
> isotropic antenna responds to signals arriving from the entire 4-pi
> sphere. Therefore, the antenna with less gain produces the greater
> signal level. But this should often be the case when a directional
> antenna is pointed away from most of the signal. The omni, on the other
> hand, is 'pointed toward' this particular signal in all directions.
>
> Out of curiosity, what kind of signal source are you interested in?
>
> ac6xg
>

2991. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 02:39:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <8zA9f.9066$dO2.6799@newssvr29.news.prodigy.net>
Source record: 68088

Ron wrote:
> Please correct me if I am wrong.

If the moon were made out of green cheese, then a
cow could jump over it.

That is a true statement, by definition.
--
73, Cecil http://www.qsl.net/w5dxp

2992. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 02:48:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <uIA9f.9067$dO2.852@newssvr29.news.prodigy.net>
Source record: 68089

Richard Clark wrote:
> An orbital electron only radiates when it changes orbital levels to a
> LOWER orbit.

His question was about a conductive loop RF antenna.
RF radiation from an antenna comes from free electrons. Their
associated photon energy levels are correlated to the frequency
of the excitation energy, not to changes in atomic orbits.
--
73, Cecil http://www.qsl.net/w5dxp

2993. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 03:02:35 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1130814155.062907.243770@g43g2000cwa.googlegroups.com>
Source record: 68090

Hi Richard

Thank you for your answer.

You are quite right Richard, this is the great postulate of Bohr, but from:

physics.indiana.edu/~sg/p641/chap2.ps

I have extracted this paragraph (rememember that I did study from books in spanish, so I had to search the web to find a suitable english references.)

"...Some physicists of the time did not at first believe in Rutherford's model
of the atom because, classically, such a model is unstable. The argument is as
follows: Electrons in orbits around a nucleus undergo acceleration. But accelerating charged particles emit electromagnetic radiation, losing energy. Therefore,
electrons orbiting a nucleus should lose energy and spiral into nucleus.
Then in 1913 Bohr solved the problem by simply postulating that electrons
move around the nucleus in certain stationary orbits without emitting radiation.
According to Bohr¡s model electrons emit radiation as photons only when making
a transition from one stationary orbit with a higher energy to another stationary
orbit with a lower energy."

Bohr's postulate would not invalidate the postulate of the classic electromagnetism that a accelerated charge irradiates energy in classical conditions. Their postulate refers to an electron in an atomic orbital, a typical quantum situation, the electrons in a circular wire would be being part of a classic macroscopic system, (I think).
In such a case, would not emit energy, according to that pointed out in the cited Indiana's university text ?

I can think a more elaborated example of Direct Current to avoid derived issues of the electronic movement in a complicated crystalline structure: An electron (or current of electrons) inside a magnetic field in the vacuum, just as in a cyclotron...

Would it be rightfully an Direct Current?.
Does it fulfill the postulates of the classic physics?
Does it irradiate electromagnetic energy?

For these reasons, I think that DC irradiates electromagnetic energy (a very, very, very little quantity, of course. This ponderings rises in my mind from a friend's question about an eternal current in a superconductor ring.

What do you think about?

Thank you very much for your corrections to my translations...

Miguel Ghezzi (LU 6ETJ)

Hola Richard.

Gracias por tu respuesta.

Tienes razon Richard, ese es el gran postulado de Bohr, pero de:

physics.indiana.edu/~sg/p641/chap2.ps

Extraje este parrafo (recuerda que yo estudie de libros en espaniol de manera que tuve que buscar en la web para encontrar referencias adecuadas en ingles).

[Original english text not translated...]

El postulado de Bohr no invalidaría los postulados del electromagnetismo clasico que una carga acelereada irradia energia en condiciones clasicas. su postulado se refiere a un electron en un orbital atomico, una típica situacion cuantica. Los electrones en un conductor circular estarían formando parte de un sistema macroscopico clasico, creo.
En tal caso, no emitirian energia de acuerdo a lo senialado en el texto de la Universidad de Indiana citado?
Puedo pensar en un ejemplo mas elaborado de corriente continua para evitar las cuestiones derivadas del movimiento electronico en una complicada estructura cristalina: Un electron (o corriente de electrones) dentro de un campo magnetico en el vacio, como en un ciclotron.

Sería legitimamente una corriente conínua?
Cumple con los postulados de la fisica clasica?
Irradia energia electromagnetica?

Por estas razones creo que una CC irradia energia electromagnetica (una muy, muy, muy pequenia cantidad, por supuesto). Estas cavilaciones surgen en mi mente a partir de la pregunta de un amigo acerca de una corriente eterna en un anillo superconductor.

Que piensas?

Miguel Ghezzi (LU 6ETJ)

2994. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 08:32:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8e7em1p6p5hbqocd13u7br8a0rupss47kg@4ax.com>
Source record: 68091

On 31 Oct 2005 19:02:35 -0800, "lu6etj" <lu6etj@gmail.com> wrote:
>What do you think about [it]?
>
>Thank you very much for your corrections to my translations...

Hi Miguel,

You do very well with English.

If you wish to be very, very, very specific, then yes DC will radiate.

Let's take something a little more practical than a cyclotron - the monitor you are looking at to read this. The CRT is accelerating an electron to strike a phosphor to illuminate a pixel. We will neglect that light radiation as not being part of the discussion.

That electron will be accelerated by a field of some 20KV. What is its frequency?
34.6 exaHertz
the wavelength of roughly 1/10 the distance of an electron orbit around a Hydrogen atom.

Now, for something completely different. Does a car driving 40 KM/Hour down the road radiate? If you wish to be very, very, very specific, then yes the car will radiate by the same principle at
5 zetta-yottaHertz

73's
Richard Clark, KB7QHC

2995. Re: SWR meter for 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 12:58:57 UTC
From: GS <spam@limbo.hell>
Message-ID: <cEJ9f.3826$J14.204330@news20.bellglobal.com>
Source record: 68092

Check out

http://www.eagle-1st.com/notes/rlbbas/bas.htm

This should give you the info needed.

Guenther Schweigl
Degen Designs
www.degendesigns.com
info@degendesigns.com

2996. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 15:18:19 UTC
From: Jim Leder <k8cxm@spam.fuse.net>
Message-ID: <3a319$43678733$42a1c3a6$4640@FUSE.NET>
Source record: 68093

I've been using my old Bear hunting bow, and rubber tipped small game arrows with 20 lb fishing line for years. Works great, even though the neighbors think I'm crazy. After I get the line where I want it, I cut the line freeing the arrow and tie on a 1 oz. bullet sinker and pull the line up over the tree limbs that are 'extra' till the sinker is only over the target tree limb and then just drop the line and sinker. Works perfect.

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message news:Xns9700AF3561EADspectrumhogstarbandn@207.106.93.175...
>
>
>> Why not just use the rod and reel? Admittedly some can throw farther
>> than they can cast.
>
>
> I doubt there are very many people who can either throw, or cast a
> line, at 70 feet, over a particular branch of a rather densely packed
> conifer tree. I can do it, however, with a slingshot. A bow or crossbow
> would be even better, I'll admit.
>
>
> Ed
>

2997. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 16:09:22 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <SqM9f.82$Ea3.82490@twister.southeast.rr.com>
Source record: 68094

One more thing: Before thinking about all this, I always thought that since a high gain antenna has a narrower beam than a lower gain antenna, the high gain antenna "sees" a smaller part of the incoming field. I now believe this is wrong. The higher gain antenna sees a larger field area. But as the antenna is rotated the sum of all the rays decreases faster than if there were fewer of them. This is probably due to the rays from the outer edge of the field causing a faster decrease in the coherent summation of all rays than the closer in rays. Of course, as the rotation is continued, many (but not as many) of the rays add coherently again, giving rise to the side lobes.

Ron, W4TQT

Ron wrote:
> This was only a mental exercise to help me visualize the concept of
> gain. No resemblance to a real antenna or RF field was intended.
> Thinking about it has helped me understand what antenna gain is
> (assuming my conclusions are correct). And that's all it was supposed to
> do. I hope it has helped someone else to do the same.
>
> Ron

2998. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 17:11:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3c8fm1luf3lr029l8ptf9ti3571o64bm7i@4ax.com>
Source record: 68095

On Tue, 01 Nov 2005 16:09:22 GMT, Ron <rmrippy@hotmail.com> wrote:

> I now believe this is wrong.

Hi Ron,

Such is the problem of your scenario if it lead you here.

73's
Richard Clark, KB7QHC

2999. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 17:51:52 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1130867512.267329.302060@g47g2000cwa.googlegroups.com>
Source record: 68096

Hi Richard

Tanks for your last answer.

Hi hi, well, my friend was very, very very insistent also with his superconducting and eternal current holder "golden ring"...

I will try learn more about [it] ;>) (I have been hard working for thirty years, and till now, I haven't any time to meditate in all these beautiful things).

I am very pleased to know you, Richard (my other ham friends it isn't "very interested" in this type of "exotic questions"... :>)

I can see this usenet group always talk about very interesting topics, with great knowledge and good "ham spirit".

73's

Miguel Ghezzi (LU 6ETJ)

3000. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 18:09:54 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk8bur$1uv$1@news.service.uci.edu>
Source record: 68097

Ron wrote:

> This was only a mental exercise to help me visualize the concept of
> gain. No resemblance to a real antenna or RF field was intended.
> Thinking about it has helped me understand what antenna gain is
> (assuming my conclusions are correct). And that's all it was supposed to
> do. I hope it has helped someone else to do the same.
>
> Ron

I think it was a good exercise, Ron - not unlike the kind seen in a good
text book. My response at the bottom presumed some things about the
nature of the sphere that were somewhat unclear in your message. I hope
I presumed correctly.

73, ac6xg

> Jim Kelley wrote:
>
>>
>>
>> Ron wrote:
>>
>>> Question (repeated here for convenience):
>>> ---
>>> Assume a receiving antenna is in the center of a sphere and the
>>> received signal is coming in equal amounts from all points on the
>>> surface of the sphere. Which receiving antenna would capture more
>>> power, an omni or a high gain beam? There are no noise and no losses.
>>> ---
>>>
>>> First, thanks for all the comments. They have helped me better
>>> understand the answer. I am leaning toward the belief that the omni
>>> (isotropic) antenna would capture more power and, as odd as it may
>>> seem, would have more gain than a high gain beam (or any other
>>> directional antenna for that matter). Here is my thinking:
>>>
>>> This is a very unusual RF field. Usually the field is assumed to be
>>> planar with coherent rays - then antennas behave as expected. But
>>> this field originates uniformly from all points on the surface of a
>>> sphere.
>>
>>
>>
>> Uniformly inward, outward, or both?

>>
>>> It does not spread but converges at the focal point of the sphere.
>>
>>
>>
>> By focal point of the sphere do you mean the center of the sphere?
>> How big of a sphere are we talking about, and where is the antenna in
>> relation to the sphere?
>>
>>> An isotropic antenna placed at the focal point would collect all of
>>> the rays whereas a directional antenna at would not.
>>
>>
>>
>> Probably.
>>
>>> Therefore, in this particular situation, the isotropic would have
>>> higher gain and capture more power than any directional antenna.
>>
>>
>>
>> Not according to the accepted use of the term 'gain' in connection
>> with antennas.
>>
>>> Please correct me if I am wrong.
>>>
>>> Ron, W4TQT
>>
>>
>>
>> In the instance you describe, the antenna with gain will pick up less
>> signal than an antenna without gain. The gain antenna will be able to
>> sense signal arriving from only a fraction of the sphere, whereas the
>> isotropic antenna responds to signals arriving from the entire 4-pi
>> sphere. Therefore, the antenna with less gain produces the greater
>> signal level. But this should often be the case when a directional
>> antenna is pointed away from most of the signal. The omni, on the
>> other hand, is 'pointed toward' this particular signal in all directions.
>>
>> Out of curiosity, what kind of signal source are you interested in?
>>
>> ac6xg
>>
>

3001. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 18:58:02 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk8epf$3d8$1@news.service.uci.edu>
Source record: 68098

Ron wrote:

> One more thing: Before thinking about all this, I always thought that
> since a high gain antenna has a narrower beam than a lower gain antenna,
> the high gain antenna "sees" a smaller part of the incoming field. I now
> believe this is wrong. The higher gain antenna sees a larger field area.

Hopefully no one else was led to that belief by the exercise.

> But as the antenna is rotated the sum of all the rays decreases faster
> than if there were fewer of them. This is probably due to the rays from
> the outer edge of the field causing a faster decrease in the coherent
> summation of all rays than the closer in rays. Of course, as the
> rotation is continued, many (but not as many) of the rays add coherently
> again, giving rise to the side lobes.

Such a claim might be remotely plausible were it not for the fact that
rotating a directional antenna does not "coherently sum all the rays".
That's where the argument completely falls to the ground, as Monty
Python might say.

ac6xg

> Ron, W4TQT
>
> Ron wrote:
>
>> This was only a mental exercise to help me visualize the concept of
>> gain. No resemblance to a real antenna or RF field was intended.
>> Thinking about it has helped me understand what antenna gain is
>> (assuming my conclusions are correct). And that's all it was supposed
>> to do. I hope it has helped someone else to do the same.
>>
>> Ron
>
>

3002. Source for Butternut Vertical parts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 21:45:20 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-FF27C1.15452001112005@newsclstr02.news.prodigy.com>
Source record: 68099

A good friend in North Texas has some wind damage to his Butternut Vertical Antenna. Where can replacement parts be ordered? A web page URL would be great and I will relay the info to him

aa5vu at arrl.net

3003. Re: Source for Butternut Vertical parts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 21:56:58 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk8pbf$884$1@news.service.uci.edu>
Source record: 68104

http://www.bencher.com/ant_select.html

Dick, AA5VU wrote:

> A good friend in North Texas has some wind damage to his Butternut
> Vertical Antenna. Where can replacement parts be ordered? A web page
> URL would be great and I will relay the info to him
>
> aa5vu at arrl.net

3004. Need antenna article from Ham Radio Mag - Oct 1968

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 22:02:31 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <BBR9f.15969$i%.5959@fed1read07>
Source record: 68100

Am posting this for a local ham - W6HPH, Fred

Do not e-mail me or respond here please -- e-mail Fred direct at
Brown Fred <w6hph@yahoo.es>

Fred asked:
"Do you know anyone who has back issues of Ham Radio ?

I promised FP5BU a copy of my antenna article which
was in Ham Radio for October 1968 and reprinted in Ham
Radio Horizons for May 1978 and I don't have a copy of
either one. I just want to make a copy of my article
to send to him."

73,
Fred, W6HPH

--
CL -- I doubt, therefore I might be !

3005. Re: Source for Butternut Vertical parts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 22:05:15 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11mfpkqa52c4i76@corp.supernews.com>
Source record: 68101

Dick,

Here is the link. I ordered a replacement cap. a couple of years ago for one of the resonators on my HF6V. It was around $38. Ouch! However, what choice do you have?

http://www.bencher.com/ant_select.html

Rod KI7CQ

3006. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 22:13:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ULR9f.7414$BZ5.923@newssvr13.news.prodigy.com>
Source record: 68103

Jim Kelley wrote:
> Such a claim might be remotely plausible were it not for the fact that
> rotating a directional antenna does not "coherently sum all the rays".

Seems to me, a receiving Yagi causes constructive interference
in the forward direction and destructive interference in the
rearward direction.
--
73, Cecil http://www.qsl.net/w5dxp

3007. Re: Source for Butternut Vertical parts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 22:13:42 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <qvpfm1pg86bfflrumsdutvce2k6rokqto9@4ax.com>
Source record: 68102

I ordered a couple of replacement parts a year ago and had prompt
service. Butternuts are made by Bencher (same as the iambic keys).
I phoned them and had the parts in three days.

Web site is

http://www.bencher.com/radioequip.html

Jon Teske, W3JT

On Tue, 01 Nov 2005 21:45:20 GMT, "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
wrote:

>A good friend in North Texas has some wind damage to his Butternut
>Vertical Antenna. Where can replacement parts be ordered? A web page
>URL would be great and I will relay the info to him
>
>aa5vu at arrl.net

3008. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 22:35:08 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk8rjc$9s3$1@news.service.uci.edu>
Source record: 68106

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Such a claim might be remotely plausible were it not for the fact that
>> rotating a directional antenna does not "coherently sum all the rays".
>
>
> Seems to me, a receiving Yagi causes constructive interference
> in the forward direction and destructive interference in the
> rearward direction.

But does it seem the antenna causes destructive interference when the forward direction of the radiation is toward the rearward direction of the antenna, or does it seem like it causes constructive interference when the forward direction of the radiation is away from the rearward direction of the antenna....and if so, what does that have to do with "coherently summing all the rays by rotating the antenna"? Just wondering.

ac6xg

3009. Copper tape antenna element-model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 22:50:03 UTC
From: jgboyles@aol.com
Message-ID: <1130885403.965041.212270@g49g2000cwa.googlegroups.com>
Source record: 68105

Hi, I just aquired some 1/4" and 1/2" copper tape that is solderable.
Thinking about using as antenna elements in VHF yagi, UHF TV antenna as
well as other things. Question: When modelling, what wire diameter do
you use when the element is actually conductive tape? Thanks.
Gary N4AST

3010. Re: Copper tape antenna element-model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 23:05:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mft6g8kncqp1f@corp.supernews.com>
Source record: 68107

jgboyles@aol.com wrote:
> Hi, I just aquired some 1/4" and 1/2" copper tape that is solderable.
> Thinking about using as antenna elements in VHF yagi, UHF TV antenna as
> well as other things. Question: When modelling, what wire diameter do
> you use when the element is actually conductive tape? Thanks.
> Gary N4AST

The diameter of the model wire should be half the width of the tape.

Roy Lewallen, W7EL

3011. Re: Copper tape antenna element-model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 23:22:10 UTC
From: jgboyles@aol.com
Message-ID: <1130887330.244581.47920@g14g2000cwa.googlegroups.com>
Source record: 68108

Thanks Roy, now to start taping.
Gary

3012. Re: Source for Butternut Vertical parts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-01 23:41:59 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-2B5FFF.17415901112005@newsclstr02.news.prodigy.com>
Source record: 68109

In article
<aa5vuNOSPAM-FF27C1.15452001112005@newsclstr02.news.prodigy.com>,
"Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote:

> A good friend in North Texas has some wind damage to his Butternut
> Vertical Antenna. Where can replacement parts be ordered? A web page
> URL would be great and I will relay the info to him
>
> aa5vu at arrl.net

Thanks to all..... looks like Bencher is the place to go and I passed
the links.

End of topic

73, Dick AA5VU

3013. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 00:21:29 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dk91ta$d4j$1@news.service.uci.edu>
Source record: 68113

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> ... what does that have to do with "coherently summing all the rays by
>> rotating the antenna"? Just wondering.
>
> "Coherently summing" certainly doesn't imply that interference
> is only constructive. An antenna is "coherently summing" all
> the rays it receives no matter what direction it is pointed.

And still, rotating the antenna has nothing to do with summing the
signals - coherently, or otherwise. Agreed?

ac6xg

3014. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 00:26:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ylT9f.12581$Zv5.1804@newssvr25.news.prodigy.net>
Source record: 68110

Jim Kelley wrote:
> ... what does that have to do with
> "coherently summing all the rays by rotating the antenna"? Just wondering.

"Coherently summing" certainly doesn't imply that interference
is only constructive. An antenna is "coherently summing" all
the rays it receives no matter what direction it is pointed.
--
73, Cecil http://www.qsl.net/w5dxp

3015. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 00:29:34 UTC
From: w4sef@bellsouth.net
Message-ID: <43680854.4156640@newsgroups.bellsouth.net>
Source record: 68111

I use a 1.5 oz weight and 20# line. Works very well.

Steve W4SEF

On Sat, 29 Oct 2005 22:55:15 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>
> I'm trying to shoot a line over a tree limb to hoist my next
>generation of wire dipole.
>
> I'm using a slingshot, a 1 oz round lead fishing weight, and in this
>case, 40# test fishing line.
>
> Although I have had fair success in the past, I'm having difficulties
>lately. My weight won't pull the line down the other side of the limb
>beyond where it stopped.
>
> My Question: What weight do you guys recommend? Does anyone know
>what weight is used on the EZhang system? Comments sollicited.
>
> Right now I'm waiting for the wind to blow and hopefully move the tree
>limb enough to make the hanging weight pull my live over to the point
>where I can reach it.
>
>
> Ed K7AAT

3016. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 00:45:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mg31e85kqoa98@corp.supernews.com>
Source record: 68112

Ron wrote:
> . . .

> An isotropic antenna placed at the focal point would collect all of
> the rays whereas a directional antenna at would not.

>
> Therefore, in this particular situation, the isotropic would have
> higher gain and capture more power than any directional antenna.
>
> Please correct me if I am wrong.
>

Not sure what you mean by "focal point", but the best any antenna can do is to intercept half the energy in some equivalent cross-sectional area of an impinging field. It does this when connected to a matched load.

When an antenna intercepts one watt from a field having a power density of one watt per square meter, it's said to have an "effective aperture" or "capture area" of one square meter. The higher the gain of an antenna in some particular direction, the larger its effective aperture in that direction. Consequently, a high gain antenna would "capture" more power from a wave arriving in its favored direction than an isotropic antenna would. It would, of course, capture less from other directions, but assuming equal efficiency, both antennas would capture equal amounts overall.

The "capture area" isn't some physical region with boundaries -- it's simply a way of expressing how much power is extracted from a field having a given power density. In other words, it's just another way of expressing antenna gain.

Roy Lewallen, W7EL

3017. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 00:52:01 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <n03gm196eo4oc37ts39t75n94ecnvgm6as@4ax.com>
Source record: 68114

On Wed, 02 Nov 2005 00:26:06 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Jim Kelley wrote:
>> ... what does that have to do with
>> "coherently summing all the rays by rotating the antenna"? Just wondering.
>
>"Coherently summing" certainly doesn't imply that interference
>is only constructive. An antenna is "coherently summing" all
>the rays it receives no matter what direction it is pointed.

Has someone got a good definition of coherent.

I thought that it implied "same phase", as in a coherent source is one where all rays, photons, whatever are in phase. An antenna may well receive rays from a single source that are not in phase.

If that is the case, what is "coherent summing". Is it trying to refer to a function that adds components algebraically, ie having regard for the magnitude and phase?

Why is light a better vehicle for explanation of an antenna that radio waves?

Owen
--

3018. Ham Radio Polling Station

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 02:05:10 UTC
From: Charles Brabham <n5pvl@sbcglobal.net>
Message-ID: <m9V9f.8790$7h7.8330@newssvr21.news.prodigy.com>
Source record: 68115

HamPoll is here in order to give amateurs a chance to speak for themselves, and in time to provide reasonably accurate and significant polling data on a variety of issues related to the amateur radio service.

You are welcome to browse the polling data we have, but we especially encourage US amateurs visiting here to register with thier callsign and vote in the HamPoll Polling Station.

Whether you come to browse, to discuss or submit new polls, or to tender your vote, be sure to visit regularly as new polls are included from time to time, and the poll data changes as more hams participate day to day.

Stop by at: http://www.hampoll.com

3019. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 02:59:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mgarr7utkaj62@corp.supernews.com>
Source record: 68116

Owen Duffy wrote:
>
> Has someone got a good definition of coherent.
>
> I thought that it implied "same phase", as in a coherent source is one
> where all rays, photons, whatever are in phase. An antenna may well
> receive rays from a single source that are not in phase.
> . . .

The way I've always seen it used in this context is meaning "exactly the same frequency". They don't have to be in phase, but the same-frequency requirement implies that the phase relationship wouldn't change with time.

This is consistent with the definition from _Merriam Webster's Collegiate Dictionary_: "relating to or composed of waves having a constant difference in phase <~light>".

Roy Lewallen, W7EL

3020. Re: Need antenna article from Ham Radio Mag - Oct 1968

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 03:09:35 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <t5W9f.15999$i%.3438@fed1read07>
Source record: 68117

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:BBR9f.15969$i%.5959@fed1read07...
>
> Am posting this for a local ham - W6HPH, Fred
>
> Do not e-mail me or respond here please -- e-mail Fred direct at
> Brown Fred <w6hph@yahoo.es>
>
> Fred asked:
> "Do you know anyone who has back issues of Ham Radio ?
>
> I promised FP5BU a copy of my antenna article which
> was in Ham Radio for October 1968 and reprinted in Ham
> Radio Horizons for May 1978 and I don't have a copy of
> either one. I just want to make a copy of my article
> to send to him."
>
> 73,
> Fred, W6HPH
>
> --
> CL -- I doubt, therefore I might be !
>

Golly within hours of this post someone came forward with the article -- wow

Thanks folks

--
CL -- I doubt, therefore I might be !

3021. How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 03:22:41 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43683106.A6993A2E@shaw.ca>
Source record: 68118

Got this by e-mail from unknown source -- Thought it belongs here...
Please don't shoot the messenger!

How to install an antenna

Here is another letter from Elmer A. Hamoprater titled
"how 2 put up an antenner"

Please note that we did not correct his spelling or edit his letter in any way.
Our Spell Check program crashes when used on Elmer's letters!
It is printed here below exactly as sent to us!
hay agin mi ham raydio frend.
lik i pramised bfor hear is mi letur tellin ya how 2 put up an
antenner.
tha first theng i need ta say is it shor is hard wurk puttin up an
antenner.
ya need a lota plannin an fixin bfor ya can git starded.
2 of tha mos emportent thengs ta hav is a gud test dawg ana gud pare
uf wyre cuters..
mi test dawges name is yep.
i named hem that caws thates whut he duz whin he fines tha wrong wyre
fur mi antenner.
i ownly use won kind uf antenner wyre caws i kin fine it purty esey
arond whur i liv.
it downt cost me nuttin ecept fur all tha wawkin an runnin me an yep
mi dawg gota du.
we start kinda earlie en tha mornin hikin over tha hill tu mi
naybors land
wher i git tha wyre fur mi antenner.
mi naybors gota lota land whur he kepes hes couws an won bull
fenced en.
an all tha wey arond it on tha fence he keeps nyce nue shiny wyre thet i
make mi antenners owt uf.
i kin awl ways git awl tha wyre i need thayer caws ever tyme i git sum
mi naybor puts mor
up betwen tha post.
i al so git mi ensulayters frum ofa tha posts ta use own mi
antenners.
gettin this wyre kin be awful dangrous to yur helth caws uf tha bull so ya
gota keepa sharp lookowt furim.
bout tha tyme we git closeta tha fence i needa little forta fyin sow i reech
bak in mi bak pac and pul owt
o i for got to tel ya bout tha bac pac.
bfor i leve mi shak i git mi ol ladiy to pac me an yep up sumpin to
eet an drenk.

wel i git mi dawg yep a biskit an im sorta thirstee sow owt she cums
mi jar uf sippin licker.
i no im gonna needa lota corage ta git tha wyre owt frum unner that bulls nose
sow i opener up and take abowt
8 swallers.
mi dowg yep es lookin up at tha jar sow i no he mus be needin a liddle corage
2 sow i reech bak in mi bac pac
pull owt anuther biskit and soke it gud withe the sippin whicker an
givit toim.
doun it gos weth won gulpe ana coupla sekons latur bothe ears stan strate up
an i no mi dawg es rediy to wurk.
he trots ovur ta tha furst post he cums tu hikes hes hin
lig an letser fli.
if he lets owt a yep an is nocked backards then i no thet tha wyre is hot ans
tha wrong wyre fer mi antenner.
this is why its emportunt ta hava gud test dawg.
yeps name sure is fittin fer im.
whin yep finaly stops yeppin an gits up we go ta a difrunt part uf tha fense
and yep dum ol dawg testes it agin.
thes tyme he jus sorta luoks at me an grins an i no tha wyre is gud wire fur
my antenner. smart dawg mi yep.
i reech out an kut tha wyre weth mi wyre cuters an grabit an me an ol yep start runnin
as hard as we kin tawards home hopein tha bull
was busy. sumtymes i git forti er fity fut ata tyme lik
thes.
we finely git tu tha shak an ol yep plops doun on tha botum step an i pul
ouwt my jar uf swippin clicker an
biskits an set a spell wunderin how ime gonna git mi nu wyre up in
tha trees.
im knot tu keen on climin trees or enything vury hi but ol yep jest luvs ta
clime. he wun a contest a while bak at
tha cownty fare fer climin an beet dawgs frum al ovor tha
place.
i now had an idear abowt how to git mi nu wyre up in tha tree sow i maid up mi mind
tu let yep hav sume fun sow i wokeim up.
he jumped up weth won ear up an won doun an starded ta wag his tayal. i think
he new what wus gonna happin.
smart dawg mi yep.
i got tha nu wyre an tyed it tu his tayal an poyned tu tha tree an yelled up
yep an he lit owt lyke greezed
litenin up tha syde uf tha tree weth bark justa fliyin.
he got abowt tin fut up an straduled tha furst lim an held own an
barked doun at me.
i new whut he wantid. mor corage.
i ran an got anuther biskit an soked it gud frum mi jar an chunked
it up tuim.
he cawt it in mid air an swollered it hole an ina flash he wuz own
hes way agin.
i recon tha tree musta ben abowt therty er forety fut tall an yep brok alota
lims own his way up tu tha top.

he finaliy got tu tha last lim at tha top an grabed hold weth bowth paws
an hunge own fer deer lyfe.
he wuz sum syte hangin frum tha lim way up ther weth mi nu antenner wyre
tyed tu his tayal.
wel it jest kame tu me thet ol yep wuz a gud tree climin dawg but thare
wuz 1 problem i had fergot.
he did ent no how ta git doun.
dum dawg mi yep.
wel i did ent wont im ta fall sow up tha tree i wint after i fenished mi jar of
sippin slisker caws i waddent tu keen
on climin..
when i reeched him i tuk tha nu wyre ofa his tayal an tyed it tu tha lim
an grabed him an put
him arown mi nek an starded doun tha tree.
i got tu tha growne an ol yep leeped frum mi bak an ran unner tha
shak.
smart dawg mi yep.
i loked up at mi bran nu antenner wyre hangin frum tha tallist tree i had
an then i real lized that
tha end uf it wuz abowt therty fuut up tha tree.
dang it.
here yep. whure is zat dawg.

it shor is hard wurk puttin up an antenner.

ey will right mor latur whin i git anuther pen
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3022. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 03:58:56 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <4QW9f.1029$Ea3.137638@twister.southeast.rr.com>
Source record: 68121

Roy Lewallen wrote:
> Ron wrote:
>
>> . . .
>
>
>> An isotropic antenna placed at the focal point would collect all of
>> the rays whereas a directional antenna at would not.
>
>
>>
>> Therefore, in this particular situation, the isotropic would have
>> higher gain and capture more power than any directional antenna.
>>
>> Please correct me if I am wrong.
>>
>
> Not sure what you mean by "focal point", but the best any antenna can do
> is to intercept half the energy in some equivalent cross-sectional area
> of an impinging field. It does this when connected to a matched load.

I agree.

By "focal point" I meant the center of the sphere where the rays
converge and where the antenna would be located.

> When an antenna intercepts one watt from a field having a power density
> of one watt per square meter, it's said to have an "effective aperture"
> or "capture area" of one square meter. The higher the gain of an antenna
> in some particular direction, the larger its effective aperture in that
> direction. Consequently, a high gain antenna would "capture" more power
> from a wave arriving in its favored direction than an isotropic antenna
> would. It would, of course, capture less from other directions, but
> assuming equal efficiency, both antennas would capture equal amounts
> overall.

In the unusual field defined in my example, the algebraic sum of all
the rays collected by the antenna would be higher in the isotropic
antenna than a high gain antenna. Think of the front to back ratio of
the high gain antenna which would result in very little output from
the rays behind and on the sides of the antenna. Therefore, the
isotropic would have a higher output which is indicative of higher gain.

I do not understand what you mean by "capture equal amounts overall".
Energy which may strike the antenna but does not result in any output
power isn't "captured".

> The "capture area" isn't some physical region with boundaries -- it's
> simply a way of expressing how much power is extracted from a field
> having a given power density. In other words, it's just another way of
> expressing antenna gain.

How about a dish antenna? Isn't the capture area proportional to the
physical area of the dish?

Ron, W4TQT

3023. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 04:13:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <I1X9f.12603$Zv5.9209@newssvr25.news.prodigy.net>
Source record: 68119

Jim Kelley wrote:
> And still, rotating the antenna has nothing to do with summing the
> signals - coherently, or otherwise. Agreed?

Are we talking normal operation or receiving big
bang background radiation?
--
73, Cecil http://www.qsl.net/w5dxp

3024. Re: Copper tape antenna element-model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 04:21:48 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11mgfn0lhhma2be@corp.supernews.com>
Source record: 68120

Half the width as a first approximation.

Jim

<jgboyles@aol.com> wrote in message
news:1130885403.965041.212270@g49g2000cwa.googlegroups.com...
> Hi, I just aquired some 1/4" and 1/2" copper tape that is solderable.
> Thinking about using as antenna elements in VHF yagi, UHF TV antenna as
> well as other things. Question: When modelling, what wire diameter do
> you use when the element is actually conductive tape? Thanks.
> Gary N4AST
>

3025. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 04:30:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <shX9f.12604$Zv5.6376@newssvr25.news.prodigy.net>
Source record: 68122

Owen Duffy wrote:
> Has someone got a good definition of coherent.

From the IEEE Dictionary: "coherent (1)(fiber optics) Characterized by a fixed phase relationship between points on an electromagnetic wave ... (2)(laser maser) A light beam is said to be coherent when the electric vector at any point in it is related to that at any other point by a definite, continuous sinusoidal function."

> An antenna may well
> receive rays from a single source that are not in phase.

I receive rays from WTAW that are sometimes in phase and sometimes not over a period of mere seconds. Earth's atmosphere seems to be a coherence killer.
--
73, Cecil http://www.qsl.net/w5dxp

3026. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 04:41:11 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <agggm1tkgn2m6hq2mns939ekijo7lol1fa@4ax.com>
Source record: 68123

On Wed, 02 Nov 2005 04:30:16 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Has someone got a good definition of coherent.
>
> From the IEEE Dictionary: "coherent (1)(fiber optics) Characterized by
>a fixed phase relationship between points on an electromagnetic wave ...
>(2)(laser maser) A light beam is said to be coherent when the electric
>vector at any point in it is related to that at any other point by a
>definite, continuous sinusoidal function."
>

Thanks Cecil and Roy... obviously my understanding (in-phase) was just
too narrow. I did find Roy's text more coherent!

Interesting to Google for the use of the term, and it appears to be
very loosely used... I guess to some extent because of its roots in
common language and the ordinary meaning of the word.

Owen
--

3027. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 04:43:34 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ksggm11u82e86hmjh825g61qut2kkgcjib@4ax.com>
Source record: 68124

On Wed, 02 Nov 2005 03:58:56 GMT, Ron <rmrippy@hotmail.com> wrote:

>
>In the unusual field defined in my example, the algebraic sum of all
>the rays collected by the antenna would be higher in the isotropic
>antenna than a high gain antenna. Think of the front to back ratio of
>the high gain antenna which would result in very little output from
>the rays behind and on the sides of the antenna. Therefore, the
>isotropic would have a higher output which is indicative of higher gain.
>

Is this to rewrite the principle of reciprocity?

Owen
--

3028. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 04:50:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jAX9f.12608$Zv5.2494@newssvr25.news.prodigy.net>
Source record: 68125

Ron wrote:
> In the unusual field defined in my example, the algebraic sum of all the
> rays collected by the antenna would be higher in the isotropic antenna
> than a high gain antenna.

The same amount of energy is incident upon both antennas at
the center of the sphere. Maybe the high-gain antenna re-
radiates more energy than the isotropic?
--
73, Cecil http://www.qsl.net/w5dxp

3029. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 07:39:12 UTC
From: richardharrison@webtv.net
Message-ID: <16584-43686D20-1259@storefull-3254.bay.webtv.net>
Source record: 68226

Roy, W7EL wrote:
"They don`t have to be in phase, but the same frequency requirement implies that the phase relationship wouldn`t change with time."

Definitions of terms like "coherent" change with time.

Slectromagnetic waves are described as "plane-polarized waves" because variations in their electric and magnetic fields can be represented by vectors that lie in a plane. It is proven that light waves and radio waves are of the same sort but differ in frequency.

The first reference I ever saw of a coherent wave was a description of light from a laser. It meant the waves started and stopped together passing through zero at the same time.

Light waves are emitted by molecules or atoms that are excited by thermal or electrical means. These molecules or atoms are randomly positioned and so are the waves generated by the energy level changes within them. Phase and polarization are thus random in light produced by ordinary light sources. Light is coherent from a laser.

A photon can interact with an atom in a laser if its energy exactly matches the energy difference (delta E) between two allowed (by Bohr) energy states for the atom, it can cause a transition. This is called a stimulated transition.

Best regards, Richard Harrison, KB5WZI

3030. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 08:11:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mgt4u10s0ss67@corp.supernews.com>
Source record: 68227

Ron wrote:
> . . .
> By "focal point" I meant the center of the sphere where the rays
> converge and where the antenna would be located.

I have to admit, I was looking at this a more of a problem of equal signals arriving from all directions, rather than at the middle of some sort of convergence. Of course, any rays reaching the center would continue on through, Cecil's unique theories notwithstanding. I don't have the spare time to contemplate what the end field distribution would be like at the center of the antenna or its periphery.

>> When an antenna intercepts one watt from a field having a power density
>> of one watt per square meter, it's said to have an "effective aperture"
>> or "capture area" of one square meter. The higher the gain of an antenna
>> in some particular direction, the larger its effective aperture in that
>> direction. Consequently, a high gain antenna would "capture" more power
>> from a wave arriving in its favored direction than an isotropic antenna
>> would. It would, of course, capture less from other directions, but
>> assuming equal efficiency, both antennas would capture equal amounts
>> overall.
>
>
> In the unusual field defined in my example, the algebraic sum of all the
> rays collected by the antenna would be higher in the isotropic antenna
> than a high gain antenna.

It's not obvious to me why that would be.

> Think of the front to back ratio of the high
> gain antenna which would result in very little output from the rays
> behind and on the sides of the antenna.

That's true. But the output would be higher in reponse to the rays arriving from the front. We call that "gain". Another way to express it is that it intercepts a field from a larger area of the wave front.

> Therefore, the isotropic would
> have a higher output which is indicative of higher gain.

You're right that higher output means higher gain. I maintain that both antennas have the same total gain, i.e., the same total interception of power from all directions. This follows directly from the reciprocity principle.

> I do not understand what you mean by "capture equal amounts overall".
> Energy which may strike the antenna but does not result in any output

> power isn't "captured".

The field you're creating comes from something and goes somewhere. If
you subtract the total amount going from the total amount generated,
you'll get the amount dissipated in the load connected to the antenna.
That is the amount of energy "captured" or "intercepted" by the antenna.
And that's what I thought you were talking about all along.

>> The "capture area" isn't some physical region with boundaries -- it's
>> simply a way of expressing how much power is extracted from a field
>> having a given power density. In other words, it's just another way of
>> expressing antenna gain.
>
>
> How about a dish antenna? Isn't the capture area proportional to the
> physical area of the dish?

Indeed it is, in the front direction. But how about a dipole? The
capture area (or gain) broadside to an infinitesimal dipole is just
slightly less than that of a half wavelength dipole. And wire diameter
makes almost no difference.

Sorry, the theoretical construct is just a little too much like
Calvinball to hold my interest. I'll bow out now. Best luck in sorting
it out.

Roy Lewallen, W7EL

3031. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 14:24:03 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <7_3af.1056$Ea3.175440@twister.southeast.rr.com>
Source record: 68228

Thanks, Roy for your and everyone's participation. I think I will
bow out here also. Hope all this hasn't been a waste of space.
"Thinking" usually has some value.

Ron W4TQT

Roy Lewallen wrote:
> Ron wrote:
>
>> . . .
>> By "focal point" I meant the center of the sphere where the rays
>> converge and where the antenna would be located.
>
>
> I have to admit, I was looking at this a more of a problem of equal
> signals arriving from all directions, rather than at the middle of some
> sort of convergence. Of course, any rays reaching the center would
> continue on through, Cecil's unique theories notwithstanding. I don't
> have the spare time to contemplate what the end field distribution would
> be like at the center of the antenna or its periphery.
>
>>> When an antenna intercepts one watt from a field having a power density
>>> of one watt per square meter, it's said to have an "effective aperture"
>>> or "capture area" of one square meter. The higher the gain of an antenna
>>> in some particular direction, the larger its effective aperture in that
>>> direction. Consequently, a high gain antenna would "capture" more power
>>> from a wave arriving in its favored direction than an isotropic antenna
>>> would. It would, of course, capture less from other directions, but
>>> assuming equal efficiency, both antennas would capture equal amounts
>>> overall.
>>
>>
>>
>> In the unusual field defined in my example, the algebraic sum of all
>> the rays collected by the antenna would be higher in the isotropic
>> antenna than a high gain antenna.
>
>
> It's not obvious to me why that would be.
>
>> Think of the front to back ratio of the high gain antenna which would
>> result in very little output from the rays behind and on the sides of
>> the antenna.
>
>

> That's true. But the output would be higher in reponse to the rays
> arriving from the front. We call that "gain". Another way to express it
> is that it intercepts a field from a larger area of the wave front.
>
>> Therefore, the isotropic would have a higher output which is
>> indicative of higher gain.
>
>
> You're right that higher output means higher gain. I maintain that both
> antennas have the same total gain, i.e., the same total interception of
> power from all directions. This follows directly from the reciprocity
> principle.
>
>> I do not understand what you mean by "capture equal amounts overall".
>> Energy which may strike the antenna but does not result in any output
>> power isn't "captured".
>
>
> The field you're creating comes from something and goes somewhere. If
> you subtract the total amount going from the total amount generated,
> you'll get the amount dissipated in the load connected to the antenna.
> That is the amount of energy "captured" or "intercepted" by the antenna.
> And that's what I thought you were talking about all along.
>
>>> The "capture area" isn't some physical region with boundaries -- it's
>>> simply a way of expressing how much power is extracted from a field
>>> having a given power density. In other words, it's just another way
>>> of expressing antenna gain.
>>
>>
>>
>> How about a dish antenna? Isn't the capture area proportional to the
>> physical area of the dish?
>
>
> Indeed it is, in the front direction. But how about a dipole? The
> capture area (or gain) broadside to an infinitesimal dipole is just
> slightly less than that of a half wavelength dipole. And wire diameter
> makes almost no difference.
>
> Sorry, the theoretical construct is just a little too much like
> Calvinball to hold my interest. I'll bow out now. Best luck in sorting
> it out.
>
> Roy Lewallen, W7EL

3032. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 15:59:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Pn5af.7548$BZ5.6349@newssvr13.news.prodigy.com>
Source record: 68229

Roy Lewallen wrote:
> Of course, any rays reaching the center would
> continue on through, Cecil's unique theories notwithstanding.

The way the incoming fields were defined, they all converge
at a point in the center of the sphere. Presumably, that's
where the isotropic antenna is located. Replacing the isotropic
with a Yagi whose feedpoint is logically located at the point
of convergence means that any part of the field that doesn't
encounter parts of the Yagi before the point of convergence will
converge at the feedpoint on the driven element of the Yagi in
a defaulting isotropic manner. Given the definition of the
spherical fields, there is no part of the fields that will not
encounter the Yagi.

Therefore, the isotropic and the Yagi receive the same amount of
energy, i.e. all that exists in the spherical fields. Any energy
not received by the Yagi beam elements is received in a default-
isotropic mode at the Yagi feedpoint.
--
73, Cecil http://www.qsl.net/w5dxp

3033. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 17:38:11 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkati3$fq3$1@news.service.uci.edu>
Source record: 68230

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> And still, rotating the antenna has nothing to do with summing the
>> signals - coherently, or otherwise. Agreed?
>
>
> Are we talking normal operation or receiving big
> bang background radiation?

The source of radiation was not described; only its distribution. It was like being surrounded isotropically by radio sources - not unlike the 3 K background. But there are other sources which pretty well surround us as well.

ac6xg

3034. Asking for owner comments - LDG AT-1000 Auto Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 17:54:27 UTC
From: Charlie <charlie@play.com>
Message-ID: <11mhvb13vr19o31@news.supernews.com>
Source record: 68231
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

I would like to hear from owners of this auto tuner about any operating quirks / hints / tips. Mine arrives tomorrow and while I have already downloaded and devoured the manual there is nothing quite like hearing straight from other hams. I have read the eHam reviews but still would like to hear more remarks..

TY

--

Charlie-AD5TH
www.ad5th.com

3035. Re: ICOM Band Decoder...I found it

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 17:56:39 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkaukn$6ab$1@engnntp2.cig.mot.com>
Source record: 68234

I knew I had this, but couldn't find it when I read the post then when I found it, I couldn't remember where I saw the question.

I found it, I found it:

Icoms have the same voltage that Cecil refers to and here is a "decoder". I believe it identifies all pre-WARC _and_ WARC bands except 12 meters (the rationale being that antenna tuners typically can tune 10 & 12 with the same components).

http://www.k6xx.com/radio/icbsciv.html

73, Steve, K;9.D,C.I

"gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:nridnVSM3_pj7sDeRVn-tw@comcast.com...
> "Dave" <kb8nnu@charter.net> wrote in message
> news:1130174597.371939.252270@g43g2000cwa.googlegroups.com...
> > Howdy...I am interested in building a cheap and easy band decoder for
> > an icom 706mkIIg that will ultimately be used for switching relays on a
> > remote antenna switch. I have searched around and found a few people
> > that make them and offer kits, but would like to see if anyone has
> > built one with good results. Any help or ideas would greatly be
> > appreciated...
> >
> > Thanks,
> >
> > Dave
> >
> Elecraft also has a kit -- look at the KRC2 kit .... should offer
everything
> you want ... Elecraft mail reflector has many happy builders.
> http://www.elecraft.com/KRC2/krc2.htm
>
> w9gb
>
>
>

3036. Re: wire antenna masts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 17:58:15 UTC
From: kb5ylg <kb5ylg@yahoo.com>
Message-ID: <1130954295.333185.33560@g44g2000cwa.googlegroups.com>
Source record: 68232

Have you considered a temporary support, such as thiose dandy
advertising balloons that hold the colorful flag lines up at mobile
home and used car lots?

KB5YLG

3037. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 18:09:42 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <7aea1$43690143$97d56a33$20085@ALLTEL.NET>
Source record: 68233

But what if it was rented from Avis?

"Richard Clark" <kb7qhc@comcast.net> wrote in message > specific, then yes
the car will radiate by the same principle at
> 5 zetta-yottaHertz
>
> 73's
> Richard Clark, KB7QHC

3038. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 18:28:57 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1130956137.585854.67300@o13g2000cwo.googlegroups.com>
Source record: 68235

For your conceptual purposes, your question would be similar to this?:

In a deep focal point of parabolic dish two antenns are mounted...

Which of them it does pick up more energy?

An antenna with 180 degree beamwidht or an highly directional antenna
with 0,1 degree beamwidth (both pointed to dish, of course)?

(In focal point of dish there are convergent frontwaves also). (We
could think in a sperical dish, also).

73's

Miguel Ghezzi (LU 6ETJ)

3039. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 19:12:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <gc8af.8894$q%.1257@newssvr12.news.prodigy.com>
Source record: 68236

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> Are we talking normal operation or receiving big
>> bang background radiation?
>
> The source of radiation was not described; only its distribution. It
> was like being surrounded isotropically by radio sources - not unlike
> the 3 K background. But there are other sources which pretty well
> surround us as well.

OK, sometimes I lose the context. If the radiation is arriving
isotopically, it doesn't matter which direction the Yagi is
pointed (as I inferred from what you said).

But arriving isotropic radiation would all converge at a point.
If a plumber's delight Yagi driven element is centered on that
point, it would receive all the radiation in a default-isotropic
mode.
--
73, Cecil http://www.qsl.net/w5dxp

3040. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 19:27:21 UTC
From: richardharrison@webtv.net
Message-ID: <10021-43691319-42@storefull-3251.bay.webtv.net>
Source record: 68237

Ron, W4TQT wrote:
"How about a dish antenna?"

The parabolic reflector converts the spherical waves of its radiator at the focus of the parabola into a plane wave of uniform phase across the mouth or aperture of the parabola. Mouth ans aperture are syninymous when applied to parabolic, lens, and horn antennas. Rays enter and exit parallel but reflect through the focal point. Reciprocity rules and the path through the antenna is the same, coming or going. The parabolic reflector antenna sends and receives to and from a familiar spot on its axis and at a distance. It is inoperative outside the spot and its path of travel. The larger the parabola, the smaller the diameter of the spot, and the higher the power gain.

The beamwidth of a large circular aperture such as a parabolic antenna is inversely proportional to its diameter in wavelengths. The total field radiated by a arabola is the vector sum of the fields generated by the elementary areas making up the aperture or mouth of the parabola. The directive gain of a parabola antenna is directly proportional to the area of its mouth and inversely proportional to the wavelength squared. See 1955 Terman page 899, equation (23-28) as pointed out at the bottom of page 911.

Best regards, Richard Harrison, KB5WZI

3041. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 19:40:39 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkb4nnjem1@news.service.uci.edu>
Source record: 68238

Cecil Moore wrote:

> Jim Kelley wrote:
>
>>
>> Cecil Moore wrote:
>>
>>> Are we talking normal operation or receiving big
>>> bang background radiation?
>>
>>
>> The source of radiation was not described; only its distribution. It
>> was like being surrounded isotropically by radio sources - not unlike
>> the 3 K background. But there are other sources which pretty well
>> surround us as well.
>
>
> OK, sometimes I lose the context. If the radiation is arriving
> isotopically, it doesn't matter which direction the Yagi is
> pointed (as I inferred from what you said).
>
> But arriving isotropic radiation would all converge at a point.
> If a plumber's delight Yagi driven element is centered on that
> point, it would receive all the radiation in a default-isotropic
> mode.

I think Roy pretty well nailed the answer. An interesting result - both antennas producing equal signals. I'd like to check that by comparing a dipole to an isotropic in such a field. I assume the results would be the same. Again, an interesting result. But you both bring some interesting points.

ac6xg

3042. 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 20:09:28 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1130962168.655457.263840@f14g2000cwb.googlegroups.com>
Source record: 68239

Hi folks,

I've got some background in EE, but know very little about antennas (though I have a copy of the ARRL Antenna Book I'm reading now), so please bear with me if these are newbie questions.

I need to communicate with a device floating on the surface of the ocean, at ranges of several miles or more, using a 900MHz radio link. Vertically polarized seems to be the way to go, to get true omnidirectional reception. My shore- or ship-side antenna can easily be placed 20' or more above the surface of the water, and I can use an off-the-shelf, moderate gain (5-6 dB) product with a nice fiberglass radome, etc.

It's the remote side that's the problem. I need to fabricate my own antenna, rather than buying one, for packaging and waterproofing reasons. I have a 50 ohm coax transmission line coming out of the electronics housing; right now I'm just modifying the end of that cable into a "coaxial dipole" (design I found on the internet). This is a 1/2 wave section of core, with the corresponding 1/2 wave section of shield folded back down over the feedline, to form a simple dipole.

The coaxial dipole works OK at short ranges (up to a mile or so), but there must be a better way to do this. In fact, based on the stuff I'm reading, it seems that a dipole is a "balanced" antenna, but a coax feed is "unbalanced" ... would I be better off with a whip and small metal ground plane? How would I match this type of antenna to 50 ohms? What sort of instrument would I need in order to check the impedance? Essentially I'm looking for something easy to build without much (if any) tuning required, doesn't need to be high gain.

It will be tough to get the antenna more than a foot (maybe two) out of the water, and the platform will be rolling and bobbing around a lot, so I'm reluctant to use the seawater as a ground plane. Figure the tuning would change too much. I also expect that in general, a low-gain antenna on the remote side will be better - generous vertical beamwidth.

thanks for any suggestions
--Jim Morash

3043. What is low profile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 20:22:06 UTC
From: shuisheng <shuisheng75@yahoo.com>
Message-ID: <1130962926.892429.129340@z14g2000cwz.googlegroups.com>
Source record: 68240

I am new to antenna field. Anyboday can explain to me what is low profile antenna? Many thanks.

3044. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 20:26:51 UTC
From: Dave <noone@nowhere.com>
Message-ID: <LPSdndbdibGOvPTenZ2dnUVZ_s6dnZ2d@crocker.com>
Source record: 68241

"jmorash" <jmorash@gmail.com> wrote in message
news:1130962168.655457.263840@f14g2000cwb.googlegroups.com...
> Hi folks,
>
> I've got some background in EE, but know very little about antennas
> (though I have a copy of the ARRL Antenna Book I'm reading now), so
> please bear with me if these are newbie questions.
>
> I need to communicate with a device floating on the surface of the
> ocean, at ranges of several miles or more, using a 900MHz radio link.
> Vertically polarized seems to be the way to go, to get true
> omnidirectional reception. My shore- or ship-side antenna can easily be
> placed 20' or more above the surface of the water, and I can use an
> off-the-shelf, moderate gain (5-6 dB) product with a nice fiberglass
> radome, etc.
>
> It's the remote side that's the problem. I need to fabricate my own
> antenna, rather than buying one, for packaging and waterproofing
> reasons. I have a 50 ohm coax transmission line coming out of the
> electronics housing; right now I'm just modifying the end of that cable
> into a "coaxial dipole" (design I found on the internet). This is a 1/2
> wave section of core, with the corresponding 1/2 wave section of shield
> folded back down over the feedline, to form a simple dipole.
>
> The coaxial dipole works OK at short ranges (up to a mile or so), but
> there must be a better way to do this. In fact, based on the stuff I'm
> reading, it seems that a dipole is a "balanced" antenna, but a coax
> feed is "unbalanced" ... would I be better off with a whip and small
> metal ground plane? How would I match this type of antenna to 50 ohms?
> What sort of instrument would I need in order to check the impedance?
> Essentially I'm looking for something easy to build without much (if
> any) tuning required, doesn't need to be high gain.
>
> It will be tough to get the antenna more than a foot (maybe two) out of
> the water, and the platform will be rolling and bobbing around a lot,
> so I'm reluctant to use the seawater as a ground plane. Figure the
> tuning would change too much. I also expect that in general, a low-gain
> antenna on the remote side will be better - generous vertical
> beamwidth.
>
> thanks for any suggestions
> --Jim Morash
>

first the dipole as you describe it is probably not what you think it is. if you fold back 1/2 wave worth of shield you end up with an antenna that is 1 wavelength end to end... this should result in a very high feedpoint impedance and a poor match to your transmitter. the normal way to do this is to fold back 1/4 wave worth of shield thus giving you a 1/2 wave end to end dipole which should have a reasonably low impedance, though not always a great match to 50 ohms it should work better.

for other options... a simple 1/4 wave ground plane is probably the easiest. a 1/4 wave vertical wire with 3 or 4 1/4 wave radials is a reasonable antenna. there are other variations that would be good on 900mhz, one takes the vertical wire and winds it into a small coil then has another 1/4 wave above it so you end up with 2 phased 1/4 wave sections giving a bit more gain at lower angles that should help you. if you can get the ground plane on a 1 to 2' mast out of the water that should help the range quite a bit, especially with waves and bobbing around. another option might be a J-Pole, look that up in the books, it has some small advantages over a 1/4 wave groundplane i think. you can also do a phased coaxial vertical where you have multiple 1/4 wave sections with coax phasing for more gain, but also more complexity to tune.

3045. Re: What is low profile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 20:37:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Vr9af.8917$q%.4633@newssvr12.news.prodigy.com>
Source record: 68242

shuisheng wrote:
> I am new to antenna field. Anyboday can explain to me what is low
> profile antenna? Many thanks.

An underground buried antenna would be an example of a
very low-profile antenna. Virtually invisible antennas
are another example. Disguised antennas (e.g. flagpoles)
are another example. Attic antennas are another example.
In general, low-profile antennas are inferior in performance
to high-profile (extremely visible) antennas.
--
73, Cecil http://www.qsl.net/w5dxp

3046. Re: What is low profile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 21:04:50 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <vR9af.16094$i%.14741@fed1read07>
Source record: 68243

An antenna that Ms Clipboard of the Home Owners Ass (ociation) can't see

--
CL -- I doubt, therefore I might be !

"shuisheng" <shuisheng75@yahoo.com> wrote in message
news:1130962926.892429.129340@z14g2000cwz.googlegroups.com...
>I am new to antenna field. Anyboday can explain to me what is low
> profile antenna? Many thanks.
>

3047. Re: What is low profile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 21:09:15 UTC
From: Dave <noone@nowhere.com>
Message-ID: <t92dnZII0vCftvTeRVn-qg@crocker.com>
Source record: 68244

"shuisheng" <shuisheng75@yahoo.com> wrote in message
news:1130962926.892429.129340@z14g2000cwz.googlegroups.com...
>I am new to antenna field. Anyboday can explain to me what is low
> profile antenna? Many thanks.
>

in addition to the other definitions of 'low profile' it could also refer to
a thin aerodynamic antenna such as the patch antennas and other designs used
for car roofs for satellite reception or on aircraft where air flow is
critical.

3048. Re: What is low profile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 21:37:07 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9acim1t0tlrkajfb4eo9mlecb6tnth1obe@4ax.com>
Source record: 68245

On Wed, 2 Nov 2005 21:09:15 -0000, "Dave" <noone@nowhere.com> wrote:

>
>"shuisheng" <shuisheng75@yahoo.com> wrote in message
>news:1130962926.892429.129340@z14g2000cwz.googlegroups.com...
>>I am new to antenna field. Anyboday can explain to me what is low
>> profile antenna? Many thanks.
>>
>
>in addition to the other definitions of 'low profile' it could also refer to

Some of those "other definitions" might be better described "low
(visual) impact", rather than low profile.

>a thin aerodynamic antenna such as the patch antennas and other designs used
>for car roofs for satellite reception or on aircraft where air flow is
>critical.

Sounds good.

Owen
--

3049. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 22:10:35 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1130969434.891524.293360@z14g2000cwz.googlegroups.com>
Source record: 68246

Dave, you're absolutely right, the existing antenna is 1/2 wave end-to-end, not 1/2 wave per section.

As for your other suggestions - based on other reading, it seems like J-Poles are finicky to attach to coax. And I've looked at phased/stacked dipoles, looks promising but I worry about the narrow vertical beampattern.

For an elevated ground plane scenario - what's better? Radials, trimmed to resonant length, bent down 45 degrees or so (I've read since that this is required for 50 ohm impedance) -- or a simple ground plane, 90 degrees to the axis of the 1/4 wave whip, min. 1/2wave diameter? 900MHz is a pretty small wavelength, I'd be fine with using a solid 6.5" ground plane if it would get me better performance than radials.

3050. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 22:34:20 UTC
From: richardharrison@webtv.net
Message-ID: <9037-43693EEC-230@storefull-3254.bay.webtv.net>
Source record: 68247

Miguel Chezzi, LU6ETJ wrote:
"In a deep focal point of parabolic dish two antennas are mounted...

Which of them does pick up more energy?
An antenna with 180 degree beamwidth or a highly directional sntenna
with 0.1 degree beamwidth (both pointed to dish, of course)?"

I`ll risk being the fool. We sometimes test for illumination of a
reflector. We would not be concerned were it not advantageous to do so.

With 180-degree radiation, we fill the dish, using all its surface.
With 0.1-degree illumination, we might as well remove all but the
illuminated area. It would save dead load and wind loading.

My answer: The 180-degree radiation angle will receive a larger area of
the plane-wavefront and extract more watts from the wave with a given
number of watts per square area.

Best regards, Richard Harrison, KB5WZI

3051. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 22:59:35 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ilCdne3c2KML1PTenZ2dnUVZ_tidnZ2d@crocker.com>
Source record: 68249

"jmorash" <jmorash@gmail.com> wrote in message
news:1130969434.891524.293360@z14g2000cwz.googlegroups.com...
> Dave, you're absolutely right, the existing antenna is 1/2 wave
> end-to-end, not 1/2 wave per section.
>
> As for your other suggestions - based on other reading, it seems like
> J-Poles are finicky to attach to coax. And I've looked at
> phased/stacked dipoles, looks promising but I worry about the narrow
> vertical beampattern.
>
> For an elevated ground plane scenario - what's better? Radials, trimmed
> to resonant length, bent down 45 degrees or so (I've read since that
> this is required for 50 ohm impedance) -- or a simple ground plane, 90
> degrees to the axis of the 1/4 wave whip, min. 1/2wave diameter? 900MHz
> is a pretty small wavelength, I'd be fine with using a solid 6.5"
> ground plane if it would get me better performance than radials.
>
a solid ground plane would be more efficient, but is of course bigger,
heavier, and more wind load if you are worried about it blowing around. the
3-4 radials bent down gives an easy way to fine tune the impedance... of
course if they aren't stiff enough they can get bent if slapped around in
waves.

3052. Re: How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 23:00:15 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <_vbaf.30193$wG.6142@bignews4.bellsouth.net>
Source record: 68248

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:43683106.A6993A2E@shaw.ca...
> Got this by e-mail from unknown source -- Thought it belongs here...
> Please don't shoot the messenger!
> ---------------------------------------
> How to install an antenna
>
> Here is another letter from Elmer A. Hamoprater titled
> "how 2 put up an antenner"
>
> Please note that we did not correct his spelling or edit his letter in
any way.
> Our Spell Check program crashes when used on Elmer's letters!
> It is printed here below exactly as sent to us!
> hay agin mi ham raydio frend.
> lik i pramised bfor hear is mi letur tellin ya how
2 put up an
> antenner.
> tha first theng i need ta say is it shor is hard
wurk puttin up an
> antenner.
> ya need a lota plannin an fixin bfor ya can
git starded.
> 2 of tha mos emportent thengs ta hav is a gud test dawg
ana gud pare
> uf wyre cuters..
> mi test dawges name is yep.
> i named hem that caws thates whut he duz whin he fines
tha wrong wyre
> fur mi antenner.
> i ownly use won kind uf antenner wyre caws i kin fine it
purty esey
> arond whur i liv.
> it downt cost me nuttin ecept fur all tha wawkin an
runnin me an yep
> mi dawg gota du.
> we start kinda earlie en tha mornin hikin over tha
hill tu mi
> naybors land
> wher i git tha wyre fur mi antenner.
> mi naybors gota lota land whur he kepes hes couws an
won bull
> fenced en.
> an all tha wey arond it on tha fence he keeps nyce nue shiny

wyre thet i
> make mi antenners owt uf.
> i kin awl ways git awl tha wyre i need thayer caws ever
tyme i git sum
> mi naybor puts mor
> up betwen tha post.
> i al so git mi ensulayters frum ofa tha posts ta
use own mi
> antenners.
> gettin this wyre kin be awful dangrous to yur helth caws uf tha
bull so ya
> gota keepa sharp lookowt furim.
> bout tha tyme we git closeta tha fence i needa little forta
fyin sow i reech
> bak in mi bak pac and pul owt
> o i for got to tel ya bout tha bac pac.
> bfor i leve mi shak i git mi ol ladiy to pac me an yep
up sumpin to
> eet an drenk.
> wel i git mi dawg yep a biskit an im sorta thirstee sow owt
she cums
> mi jar uf sippin licker.
> i no im gonna needa lota corage ta git tha wyre owt frum unner
that bulls nose
> sow i opener up and take abowt
> 8 swallers.
> mi dowg yep es lookin up at tha jar sow i no he mus be needin a
liddle corage
> 2 sow i reech bak in mi bac pac
> pull owt anuther biskit and soke it gud withe the
sippin whicker an
> givit toim.
> doun it gos weth won gulpe ana coupla sekons latur bothe ears
stan strate up
> an i no mi dawg es rediy to wurk.
> he trots ovur ta tha furst post he cums tu
hikes hes hin
> lig an letser fli.
> if he lets owt a yep an is nocked backards then i no thet tha
wyre is hot ans
> tha wrong wyre fer mi antenner.
> this is why its emportunt ta hava gud test
dawg.
> yeps name sure is fittin fer im.
> whin yep finaly stops yeppin an gits up we go ta a difrunt part
uf tha fense
> and yep dum ol dawg testes it agin.
> thes tyme he jus sorta luoks at me an grins an i no tha wyre is
gud wire fur
> my antenner. smart dawg mi yep.

> i reech out an kut tha wyre weth mi wyre cuters an grabit an me an ol yep
start runnin
> as hard as we kin tawards home hopein tha bull
> was busy. sumtymes i git forti er fity fut ata
tyme lik
> thes.
> we finely git tu tha shak an ol yep plops doun on tha botum
step an i pul
> ouwt my jar uf swippin clicker an
> biskits an set a spell wunderin how ime gonna git mi
nu wyre up in
> tha trees.
> im knot tu keen on climin trees or enything vury hi but ol yep
jest luvs ta
> clime. he wun a contest a while bak at
> tha cownty fare fer climin an beet dawgs frum al
ovor tha
> place.
> i now had an idear abowt how to git mi nu wyre up in tha tree sow i
maid up mi mind
> tu let yep hav sume fun sow i wokeim up.
> he jumped up weth won ear up an won doun an starded ta wag his
tayal. i think
> he new what wus gonna happin.
> smart dawg mi yep.
> i got tha nu wyre an tyed it tu his tayal an poyned tu tha
tree an yelled up
> yep an he lit owt lyke greezed
> litenin up tha syde uf tha tree weth bark
justa fliyin.
> he got abowt tin fut up an straduled tha furst lim an
held own an
> barked doun at me.
> i new whut he wantid. mor corage.
> i ran an got anuther biskit an soked it gud frum mi
jar an chunked
> it up tuim.
> he cawt it in mid air an swollered it hole an ina
flash he wuz own
> hes way agin.
> i recon tha tree musta ben abowt therty er forety fut tall an
yep brok alota
> lims own his way up tu tha top.
> he finaliy got tu tha last lim at tha top an grabed hold
weth bowth paws
> an hunge own fer deer lyfe.
> he wuz sum syte hangin frum tha lim way up ther weth mi nu
antenner wyre
> tyed tu his tayal.
> wel it jest kame tu me thet ol yep wuz a gud tree climin

dawg but thare
> wuz 1 problem i had fergot.
> he did ent no how ta git doun.
> dum dawg mi yep.
> wel i did ent wont im ta fall sow up tha tree i wint after i
fenished mi jar of
> sippin slisker caws i waddent tu keen
> on climin..
> when i reeched him i tuk tha nu wyre ofa his tayal an tyed
it tu tha lim
> an grabed him an put
> him arown mi nek an starded doun tha
tree.
> i got tu tha growne an ol yep leeped frum mi bak an
ran unner tha
> shak.
> smart dawg mi yep.
> i loked up at mi bran nu antenner wyre hangin frum tha
tallist tree i had
> an then i real lized that
> tha end uf it wuz abowt therty fuut up tha
tree.
> dang it.
> here yep. whure is zat dawg.
>
> it shor is hard wurk puttin up an
antenner.
>
> ey will right mor latur whin i git anuther
pen
> --
> ---------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ---------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

3053. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 23:18:02 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkbhfbpkq1@news.service.uci.edu>
Source record: 68250

Richard Harrison wrote:

> Miguel Chezzi, LU6ETJ wrote:
> "In a deep focal point of parabolic dish two antennas are mounted...
>
> Which of them does pick up more energy?
> An antenna with 180 degree beamwidth or a highly directional sntenna
> with 0.1 degree beamwidth (both pointed to dish, of course)?"
>
> I`ll risk being the fool. We sometimes test for illumination of a
> reflector. We would not be concerned were it not advantageous to do so.
>
> With 180-degree radiation, we fill the dish, using all its surface.
> With 0.1-degree illumination, we might as well remove all but the
> illuminated area. It would save dead load and wind loading.
>
> My answer: The 180-degree radiation angle will receive a larger area of
> the plane-wavefront and extract more watts from the wave with a given
> number of watts per square area.
>
> Best regards, Richard Harrison, KB5WZI

The question you have to ask yourself is, does it intercept all of the energy reflected toward it, or only some fraction of it.

We should always be cognizant of the limits imposed by the absence of a free lunch.

ac6xg

3054. Re: How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-02 23:28:16 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <eWbaf.30327$wG.16222@bignews4.bellsouth.net>
Source record: 68251

That reminds me of a story that used to circulate about the ham writing a
letter to the insurance company explaining how he incurred his injuries
while working on his antenna tower.
Something about: 300 lbs of tools in a bucket at the top of the tower and
the bucket was on a rope that went through a pully at the top of the tower.
he weighed only 150 lbs
and as he accelerated upward, he forgot to turn loose of the rope
met the bucket with his head half way up (and again with his ankles half way
down because the bottom fell out of the bucket when it hit the ground).

Does anyone have a link to this original story ?

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:43683106.A6993A2E@shaw.ca...
> Got this by e-mail from unknown source -- Thought it belongs here...
> Please don't shoot the messenger!
> ----------
> How to install an antenna
>
> Here is another letter from Elmer A. Hamoprater titled
> "how 2 put up an antenner"
>
> Please note that we did not correct his spelling or edit his letter in
any way.
> Our Spell Check program crashes when used on Elmer's letters!
> It is printed here below exactly as sent to us!
> hay agin mi ham raydio frend.
> lik i pramised bfor hear is mi letur tellin ya how
2 put up an
> antenner.
> tha first theng i need ta say is it shor is hard
wurk puttin up an
> antenner.
> ya need a lota plannin an fixin bfor ya can
git starded.
> 2 of tha mos emportent thengs ta hav is a gud test dawg
ana gud pare
> uf wyre cuters..
> mi test dawges name is yep.
> i named hem that caws thates whut he duz whin he fines
tha wrong wyre
> fur mi antenner.
> i ownly use won kind uf antenner wyre caws i kin fine it
purty esey
> arond whur i liv.

> it downt cost me nuttin ecept fur all tha wawkin an
runnin me an yep
> mi dawg gota du.
> we start kinda earlie en tha mornin hikin over tha
hill tu mi
> naybors land
> wher i git tha wyre fur mi antenner.
> mi naybors gota lota land whur he kepes hes couws an
won bull
> fenced en.
> an all tha wey arond it on tha fence he keeps nyce nue shiny
wyre thet i
> make mi antenners owt uf.
> i kin awl ways git awl tha wyre i need thayer caws ever
tyme i git sum
> mi naybor puts mor
> up betwen tha post.
> i al so git mi ensulayters frum ofa tha posts ta
use own mi
> antenners.
> gettin this wyre kin be awful dangrous to yur helth caws uf tha
bull so ya
> gota keepa sharp lookowt furim.
> bout tha tyme we git closeta tha fence i needa little forta
fyin sow i reech
> bak in mi bak pac and pul owt
> o i for got to tel ya bout tha bac pac.
> bfor i leve mi shak i git mi ol ladiy to pac me an yep
up sumpin to
> eet an drenk.
> wel i git mi dawg yep a biskit an im sorta thirstee sow owt
she cums
> mi jar uf sippin licker.
> i no im gonna needa lota corage ta git tha wyre owt frum unner
that bulls nose
> sow i opener up and take abowt
> 8 swallers.
> mi dowg yep es lookin up at tha jar sow i no he mus be needin a
liddle corage
> 2 sow i reech bak in mi bac pac
> pull owt anuther biskit and soke it gud withe the
sippin whicker an
> givit toim.
> doun it gos weth won gulpe ana coupla sekons latur bothe ears
stan strate up
> an i no mi dawg es rediy to wurk.
> he trots ovur ta tha furst post he cums tu
hikes hes hin
> lig an letser fli.
> if he lets owt a yep an is nocked backards then i no thet tha

wyre is hot ans
> tha wrong wyre fer mi antenner.
> this is why its emportunt ta hava gud test
dawg.
> yeps name sure is fittin fer im.
> whin yep finaly stops yeppin an gits up we go ta a difrunt part
uf tha fense
> and yep dum ol dawg testes it agin.
> thes tyme he jus sorta luoks at me an grins an i no tha wyre is
gud wire fur
> my antenner. smart dawg mi yep.
> i reech out an kut tha wyre weth mi wyre cuters an grabit an me an ol yep
start runnin
> as hard as we kin tawards home hopein tha bull
> was busy. sumtymes i git forti er fity fut ata
tyme lik
> thes.
> we finely git tu tha shak an ol yep plops doun on tha botum
step an i pul
> ouwt my jar uf swippin clicker an
> biskits an set a spell wunderin how ime gonna git mi
nu wyre up in
> tha trees.
> im knot tu keen on climin trees or enything vury hi but ol yep
jest luvs ta
> clime. he wun a contest a while bak at
> tha cownty fare fer climin an beet dawgs frum al
ovor tha
> place.
> i now had an idear abowt how to git mi nu wyre up in tha tree sow i
maid up mi mind
> tu let yep hav sume fun sow i wokeim up.
> he jumped up weth won ear up an won doun an starded ta wag his
tayal. i think
> he new what wus gonna happin.
> smart dawg mi yep.
> i got tha nu wyre an tyed it tu his tayal an poyned tu tha
tree an yelled up
> yep an he lit owt lyke greezed
> litenin up tha syde uf tha tree weth bark
justa fliyin.
> he got abowt tin fut up an straduled tha furst lim an
held own an
> barked doun at me.
> i new whut he wantid. mor corage.
> i ran an got anuther biskit an soked it gud frum mi
jar an chunked
> it up tuim.
> he cawt it in mid air an swollered it hole an ina
flash he wuz own

> hes way agin.
> i recon tha tree musta ben abowt therty er forety fut tall an
yep brok alota
> lims own his way up tu tha top.
> he finaliy got tu tha last lim at tha top an grabed hold
weth bowth paws
> an hunge own fer deer lyfe.
> he wuz sum syte hangin frum tha lim way up ther weth mi nu
antenner wyre
> tyed tu his tayal.
> wel it jest kame tu me thet ol yep wuz a gud tree climin
dawg but thare
> wuz 1 problem i had fergot.
> he did ent no how ta git doun.
> dum dawg mi yep.
> wel i did ent wont im ta fall sow up tha tree i wint after i
fenished mi jar of
> sippin slisker caws i waddent tu keen
> on climin..
> when i reeched him i tuk tha nu wyre ofa his tayal an tyed
it tu tha lim
> an grabed him an put
> him arown mi nek an starded doun tha
tree.
> i got tu tha growne an ol yep leeped frum mi bak an
ran unner tha
> shak.
> smart dawg mi yep.
> i loked up at mi bran nu antenner wyre hangin frum tha
tallist tree i had
> an then i real lized that
> tha end uf it wuz abowt therty fuut up tha
tree.
> dang it.
> here yep. whure is zat dawg.
>
> it shor is hard wurk puttin up an
antenner.
>
> ey will right mor latur whin i git anuther
pen
> --
> ---------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
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> ---------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm

> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

3055. Re: How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 00:24:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mim54bve97rcc@corp.supernews.com>
Source record: 68252

Hal Rosser wrote:
> That reminds me of a story that used to circulate about the ham writing a
> letter to the insurance company explaining how he incurred his injuries
> while working on his antenna tower.
> Something about: 300 lbs of tools in a bucket at the top of the tower and
> the bucket was on a rope that went through a pully at the top of the tower.
> he weighed only 150 lbs
> and as he accelerated upward, he forgot to turn loose of the rope
> met the bucket with his head half way up (and again with his ankles half way
> down because the bottom fell out of the bucket when it hit the ground).
>
> Does anyone have a link to this original story ?

The original is almost certainly lost in the mists of time. My dad used
to tell me a version of that when I was a little kid. And he probably
heard it from his dad.

Roy Lewallen, W7EL

3056. Re: How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 00:56:03 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11mio1h6a2td18f@corp.supernews.com>
Source record: 68253

Roy Lewallen wrote:
> Hal Rosser wrote:
>
>> That reminds me of a story that used to circulate about the ham writing a
>> letter to the insurance company explaining how he incurred his injuries
>> while working on his antenna tower.
>> Something about: 300 lbs of tools in a bucket at the top of the
>> tower and
>> the bucket was on a rope that went through a pully at the top of the
>> tower.
>> he weighed only 150 lbs
>> and as he accelerated upward, he forgot to turn loose of the rope
>> met the bucket with his head half way up (and again with his ankles
>> half way
>> down because the bottom fell out of the bucket when it hit the ground).
>>
>> Does anyone have a link to this original story ?
>
>
> The original is almost certainly lost in the mists of time. My dad used
> to tell me a version of that when I was a little kid. And he probably
> heard it from his dad.
>
> Roy Lewallen, W7EL
Mythbusters looked into this myth and ircc they found it not only false
but impossible. I could be wrong though.

Dave WD9BDZ

BTW: Glad to see you back Roy...

3057. Re: How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 00:59:15 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <436960EA.93C04432@shaw.ca>
Source record: 68254

Hal Rosser wrote:
>
> That reminds me of a story that used to circulate about the ham writing a
> letter to the insurance company explaining how he incurred his injuries
> while working on his antenna tower.
> Something about: 300 lbs of tools in a bucket at the top of the tower and
> the bucket was on a rope that went through a pully at the top of the tower.
> he weighed only 150 lbs
> and as he accelerated upward, he forgot to turn loose of the rope
> met the bucket with his head half way up (and again with his ankles half way
> down because the bottom fell out of the bucket when it hit the ground).
>
> Does anyone have a link to this original story ?
>
> "Irv Finkleman" <finkirv@shaw.ca> wrote in message
> news:43683106.A6993A2E@shaw.ca...
> > Got this by e-mail from unknown source -- Thought it belongs here...
> > Please don't shoot the messenger!
> > ----------
> > How to install an antenna
> >
> > Here is another letter from Elmer A. Hamoprater titled
> > "how 2 put up an antenner"
> >
> > Please note that we did not correct his spelling or edit his letter in
> any way.
> > Our Spell Check program crashes when used on Elmer's letters!
> > It is printed here below exactly as sent to us!
> > hay agin mi ham raydio frend.
> > lik i pramised bfor hear is mi letur tellin ya how
> 2 put up an
> > antenner.
> > tha first theng i need ta say is it shor is hard
> wurk puttin up an
> > antenner.
> > ya need a lota plannin an fixin bfor ya can
> git starded.
> > 2 of tha mos emportent thengs ta hav is a gud test dawg
> ana gud pare
> > uf wyre cuters..
> > mi test dawges name is yep.
> > i named hem that caws thates whut he duz whin he fines
> tha wrong wyre
> > fur mi antenner.

> > i ownly use won kind uf antenner wyre caws i kin fine it
> purty esey
> > arond whur i liv.
> > it downt cost me nuttin ecept fur all tha wawkin an
> runnin me an yep
> > mi dawg gota du.
> > we start kinda earlie en tha mornin hikin over tha
> hill tu mi
> > naybors land
> > wher i git tha wyre fur mi antenner.
> > mi naybors gota lota land whur he kepes hes couws an
> won bull
> > fenced en.
> > an all tha wey arond it on tha fence he keeps nyce nue shiny
> wyre thet i
> > make mi antenners owt uf.
> > i kin awl ways git awl tha wyre i need thayer caws ever
> tyme i git sum
> > mi naybor puts mor
> > up betwen tha post.
> > i al so git mi ensulayters frum ofa tha posts ta
> use own mi
> > antenners.
> > gettin this wyre kin be awful dangrous to yur helth caws uf tha
> bull so ya
> > gota keepa sharp lookowt furim.
> > bout tha tyme we git closeta tha fence i needa little forta
> fyin sow i reech
> > bak in mi bak pac and pul owt
> > o i for got to tel ya bout tha bac pac.
> > bfor i leve mi shak i git mi ol ladiy to pac me an yep
> up sumpin to
> > eet an drenk.
> > wel i git mi dawg yep a biskit an im sorta thirstee sow owt
> she cums
> > mi jar uf sippin licker.
> > i no im gonna needa lota corage ta git tha wyre owt frum unner
> that bulls nose
> > sow i opener up and take abowt
> > 8 swallers.
> > mi dowg yep es lookin up at tha jar sow i no he mus be needin a
> liddle corage
> > 2 sow i reech bak in mi bac pac
> > pull owt anuther biskit and soke it gud withe the
> sippin whicker an
> > givit toim.
> > doun it gos weth won gulpe ana coupla sekons latur bothe ears
> stan strate up
> > an i no mi dawg es rediy to wurk.
> > he trots ovur ta tha furst post he cums tu

> hikes hes hin
> > lig an letser fli.
> > if he lets owt a yep an is nocked backards then i no thet tha
> wyre is hot ans
> > tha wrong wyre fer mi antenner.
> > this is why its emportunt ta hava gud test
> dawg.
> > yeps name sure is fittin fer im.
> > whin yep finaly stops yeppin an gits up we go ta a difrunt part
> uf tha fense
> > and yep dum ol dawg testes it agin.
> > thes tyme he jus sorta luoks at me an grins an i no tha wyre is
> gud wire fur
> > my antenner. smart dawg mi yep.
> > i reech out an kut tha wyre weth mi wyre cuters an grabit an me an ol yep
> start runnin
> > as hard as we kin tawards home hopein tha bull
> > was busy. sumtymes i git forti er fity fut ata
> tyme lik
> > thes.
> > we finely git tu tha shak an ol yep plops doun on tha botum
> step an i pul
> > ouwt my jar uf swippin clicker an
> > biskits an set a spell wunderin how ime gonna git mi
> nu wyre up in
> > tha trees.
> > im knot tu keen on climin trees or enything vury hi but ol yep
> jest luvs ta
> > clime. he wun a contest a while bak at
> > tha cownty fare fer climin an beet dawgs frum al
> ovor tha
> > place.
> > i now had an idear abowt how to git mi nu wyre up in tha tree sow i
> maid up mi mind
> > tu let yep hav sume fun sow i wokeim up.
> > he jumped up weth won ear up an won doun an starded ta wag his
> tayal. i think
> > he new what wus gonna happin.
> > smart dawg mi yep.
> > i got tha nu wyre an tyed it tu his tayal an poyned tu tha
> tree an yelled up
> > yep an he lit owt lyke greezed
> > litenin up tha syde uf tha tree weth bark
> justa fliyin.
> > he got abowt tin fut up an straduled tha furst lim an
> held own an
> > barked doun at me.
> > i new whut he wantid. mor corage.
> > i ran an got anuther biskit an soked it gud frum mi
> jar an chunked

> > it up tuim.
> > he cawt it in mid air an swollered it hole an ina
> flash he wuz own
> > hes way agin.
> > i recon tha tree musta ben abowt therty er forety fut tall an
> yep brok alota
> > lims own his way up tu tha top.
> > he finaliy got tu tha last lim at tha top an grabed hold
> weth bowth paws
> > an hunge own fer deer lyfe.
> > he wuz sum syte hangin frum tha lim way up ther weth mi nu
> antenner wyre
> > tyed tu his tayal.
> > wel it jest kame tu me thet ol yep wuz a gud tree climin
> dawg but thare
> > wuz 1 problem i had fergot.
> > he did ent no how ta git doun.
> > dum dawg mi yep.
> > wel i did ent wont im ta fall sow up tha tree i wint after i
> fenished mi jar of
> > sippin slisker caws i waddent tu keen
> > on climin..
> > when i reeched him i tuk tha nu wyre ofa his tayal an tyed
> it tu tha lim
> > an grabed him an put
> > him arown mi nek an starded doun tha
> tree.
> > i got tu tha growne an ol yep leeped frum mi bak an
> ran unner tha
> > shak.
> > smart dawg mi yep.
> > i loked up at mi bran nu antenner wyre hangin frum tha
> tallist tree i had
> > an then i real lized that
> > tha end uf it wuz abowt therty fuut up tha
> tree.
> > dang it.
> > here yep. whure is zat dawg.
> >
> > it shor is hard wurk puttin up an
> antenner.
> >
> > ey will right mor latur whin i git anuther
> pen
> > --
> > ---------------------------------------
> > Diagnosed Type II Diabetes March 5 2001
> > Beating it with diet and exercise!
> > 297/215/210 (to be revised lower)
> > 58"/43"(!)/44" (already lower too!)

> > ------------------------------------
> > Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> > Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> > Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> > --------------------
> > Irv Finkleman,
> > Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> > Calgary, Alberta, Canada

I've got a copy of it somewhere on this machine! I'll see if I can find it!
--

Diagnosed Type II Diabetes March 5 2001
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----
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3058. I Found It!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 01:19:54 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <436965C2.CD6E05BC@shaw.ca>
Source record: 68255

Irv Finkleman wrote:
>
> Hal Rosser wrote:
> >
> > That reminds me of a story that used to circulate about the ham writing a
> > letter to the insurance company
>
> I've got a copy of it somewhere on this machine! I'll see if I can find it!

Here it is -- it's called sick note!

The Sick Note

Dear Sir, I write this note to you to tell you of my plight
For at the time of writing I am not a pretty sight
My body is all black and blue, my face a deathly gray
And I write this note to say why I am not at work today

Whilst working on the 14th floor some bricks I had to clear
To throw them down from such a height was not a good idea
The foreman wasn't very pleased, the bloody awkward sod
And said I'd have to cart them down the ladders in my hod

Now clearing all those bricks by hand, it was so very slow
So I hoisted up a barrel and secured the rope below
But in my haste to do the job I was to blind to see
That a barrel full of building bricks was heavier than me

And so when I untied the rope the barrel flew like lead
And clinging tightly to the rope I started up instead
I shot up like a rocket till to my dismay I found
That halfway up I met the bloody barrel coming down

The barrel broke my shoulder as toward the ground it sped
And when I reached the top I banged the pully with me head
I hung on tightly, numb with shock from this almighty blow
And the barrel spilled out half the bricks, 14 floors below

Now when those bricks had fallen from the barrel to the floor
I then outweighed the barrel and so started down once more
Still clinging tightly to the rope, my body racked with pain
When halfway down I met the bloody barrel once again

The force of this collision, halfway up the office block
Caused multiple abrasions and a nasty case of shock

Still clinging tightly to the rope, I fell towards the ground
And I landed on the broken bricks the barrel scattered round

I lay there groaning on the ground, I thought I'd passed the worst
But the barrel hit the pulleywheel, and then its bottom burst
A shower of bricks rained down on me, I hadn't got a hope
As I lay there bleeding on the ground, I let go the bloody rope

The barrel was now free to fall and down it came once more
And landed right across me as I lay upon the floor
It broke three ribs and my left arm and I can only say
That I hope you understand why I am not at work today!

--

Diagnosed Type II Diabetes March 5 2001
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297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3059. Attn: Dave Platt AE6EO

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 02:00:18 UTC
From: Dan Richardson <>
Message-ID: <mhrim19uunthjodu56t2phurasmdme7bm0@4ax.com>
Source record: 68256

Dave,

I have been trying to reach you via email, but your ISP bounced my message calling it spam (It didn't like my return address). Next I tried using a different return address and while that message wasn't bounced I received no reply. So wondering if you could contact me?

k6mhe<at>arrl<dot>net

Danny, K6MHE

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

3060. Re: Attn: Dave Platt AE6EO

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 02:11:40 UTC
From: dplatt@radagast.org
Message-ID: <11miseskpjvlc80@corp.supernews.com>
Source record: 68257

In article <mhrim19uunthjodu56t2phurasmdme7bm0@4ax.com>,
Dan Richardson <> wrote:

>Dave,
>
>I have been trying to reach you via email, but your ISP bounced my
>message calling it spam (It didn't like my return address). Next I
>tried using a different return address and while that message wasn't
>bounced I received no reply. So wondering if you could contact me?
>
>k6mhe<at>arrl<dot>net

Hi, Dan! I did get your second message on Monday, and replied to
it... but a mailer problem on my system ate the outbound mail, alas.

The answer to your question is: yes, by all means go ahead and post
the link to my page about the Laport book. The only change I'd
suggest is purely editorial - there's an extra blank in the
"6-by-9- inch softcover" text which could be removed. Otherwise, it
looks just fine.

Thanks much for being willing to add the link to your antennas page!

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3061. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 03:21:59 UTC
From: richardharrison@webtv.net
Message-ID: <10021-43698257-110@storefull-3251.bay.webtv.net>
Source record: 68258

Jim Kelley, AC6XG wrote:
"The question you have to ask yourself is, does it intercept all of the energy reflected toward it, or only some fraction of it."

Nothing is perfect as Jim observes. "Imperfections" are sometimes exploited to improve an antenna pattern. To a first approximation though, we assume that all the parallel rays intercepted by a dish are focused on the radiator and aid, adding in-phase. Received carrier power excites the antenna and this causes a minimum of 50% of this power to be re-radiated if the antenna is perfectly matched to to the receiver load. The antenna`s radiation resistance in this case becomes the Thevenin`s source resistance for the receiver load on the antenna. This requires a conjugate match between the antenna and receiver input impedances.

50% of the received power to the receiver is the best that can be done under optimum conditions, that is , with a perfect match. With a 100% mismatch, a short-circuit, 100% of the intercepted power is re-radiated by the antenna. If the antenna is open-circuited, it accepts none of the power focused upon it.

Best regards, Richard Harrison, KB5WZI

3062. Re: Source for Butternut Vertical parts

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 03:45:37 UTC
From: the Fords <jecford@cox-internet.com>
Message-ID: <GJfaf.5880$CC.5312@dukeread09>
Source record: 68259

Burghardt has many of the parts in stock

K5ACO
James Ford

3063. Coax Cable, Connector & Adapter Catalog available at no charge.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 05:07:57 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <IWgaf.366$zu6.297@fed1read04>
Source record: 68260
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.antenna

Please email sales@aaarfproducts.com for your free copy of our latest
catalog, or see www.aaarfproducts.com

3064. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 06:27:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o4ajm11hqlv98sdbla5rg05732pl15mnf2@4ax.com>
Source record: 68261

On Fri, 28 Oct 2005 20:37:07 GMT, Ron <rmrippy@hotmail.com> wrote:

>Assume an incoming rf signal has exactly the same strength in all 3
>dimensions i.e., completely omnidirectional. Question: would an
>antenna having gain capture any more signal power than a completely
>omnidirectional antenna with no gain?

Hi All,

Well, it is time to discard the speculation and let modeling approach
this for an answer that at least offers more than swag.

First we strip away the sphere and solve this in two dimensions. To
do that we simply construct a ring of sources surrounding the
prospective antennas and let the winning design emerge.

EZNEC+ ver. 4.0

Dipole in Ring of Sources 11/2/2005 10:00:48 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 4.783 V. at 23.52 deg.
Current = 0.06643 A. at 23.52 deg.
Impedance = 72 + J 0 ohms
Power = 0.3177 watts

Total applied power = 2000 watts

Total load power = 0.3177 watts
Total load loss = 0.001 dB

EZNEC+ ver. 4.0

Vert Yagi in Ring of Sources 11/2/2005 10:21:32 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 1.418 V. at 25.9 deg.
Current = 0.1182 A. at 25.9 deg.
Impedance = 12 + J 0 ohms
Power = 0.1676 watts

Total applied power = 2000 watts

Total load power = 0.1676 watts
Total load loss = 0.0 dB

As the Bard would offer, there's many a slip between the cup and the lip. For a first pass approximation, and for all the potential for errors (which can now be routed out instead of gummed to death), it appears that the low gain (directivity) dipole absorbs more power than the high gain (directivity) yagi.

73's
Richard Clark, KB7QHC

3065. Re: What is low profile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 08:46:31 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <H7kaf.635$fe6.569@newsfe2-win.ntli.net>
Source record: 68262

"Cecil Moore" <mycall@arrl.net> wrote in message
news:Vr9af.8917$q%.4633@newssvr12.news.prodigy.com...
> shuisheng wrote:
> > I am new to antenna field. Anyboday can explain to me what is low
> > profile antenna? Many thanks.
>
> An underground buried antenna would be an example of a
> very low-profile antenna. Virtually invisible antennas
> are another example. Disguised antennas (e.g. flagpoles)
> are another example. Attic antennas are another example.
> In general, low-profile antennas are inferior in performance
> to high-profile (extremely visible) antennas.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Sorry, absolute blx. You are getting confused with a covert antenna.

A low profile antenna is one that is designed not to stick up when
vertically polarised, and may at the same time be not visually
intrusive.

They are most often found (and visible) on the roof of security vans
or buses, and look like a small flat-ish upturned dish - for UK
hi-band (170MHz) being about 18" across and about 2-3" high. In most
applications they are omnidirectional and vertically polarised.
Technically they are a slot antenna - a Google search will explain how
they work. They have the advantage that the metal fixing base will act
as a ground plane so they can be fitted on fibre-glass bodies without
worry. They are popular on buses as they don't get pulled off by the
vehicle wash.

--
Woody

harrogate2 at ntlworld dot com

3066. Re: Coax Cable, Connector & Adapter Catalog available at no charge.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 11:50:22 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-D10FF3.05502203112005@newsclstr02.news.prodigy.com>
Source record: 68263
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.antenna

In article <IWgaf.366$zu6.297@fed1read04>,
"AAA RF Products" <sales@aaarfproducts.com> wrote:

> Please email sales@aaarfproducts.com for your free copy of our latest
> catalog, or see www.aaarfproducts.com

The real address is http://aaarfproducts.com/ not what is listed above

3067. Re: Problem with nec2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 13:28:27 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1131024507.454172.196260@f14g2000cwb.googlegroups.com>
Source record: 68264

Frank wrote:

> Cebik's book on NEC modelling, at www.nittany-scientific.com, for $50 is
> well worth the money.

Or try 4nec2 at http://home.ict.nl/~arivoors/. It has built-in
geometry- and segment-checks which will deliver instant error and
warning reports. Furthermore it's completely free to use
and will run Nec2 (and Nec4, if you have a Nec4 license).

Arie.

3068. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 13:36:07 UTC
From: HS <hmjs@spray.se>
Message-ID: <bnoaf.149862$dP1.507670@newsc.telia.net>
Source record: 68265

2m antenna?

-Simple!

Cut a piece of wire, 1/4 wave long.

Solder wire to inner lead of the end of a coaxial cable.

Find a stick of wood, plastic or fiberglass, at least 3/4 wl long.

Tape wire and coax to stick.

Fix stick to rucksack, so that the antenna wire is as high as possible.

Connect coax to radio.

That's it!

73 de Hans, SM3PXG

Steve - www.ukspeedtraps.co.uk wrote:

> Hi All
>
> I want to construct a backpack antenna that can be left on my rucksack and
> used when walking.
>
> The plan is to have a FT817 on my waist and the antenna fitted to the
> rucksack. I been playing with a mobile antenna today and can not get the SWR
> down without trailing a wire. I don't want a wire trailing behind me.
>
> Any ideas for a 2m antenna that can be left on a rucksack when walking and
> used for transmittion. Height is not a major problem but it has to realistic
> and robust.
>
> Thanks
> Steve
>

3069. Re: Coax Cable, Connector & Adapter Catalog available at no charge.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 14:27:38 UTC
From: bigamps <bigamps@louder.still.net>
Message-ID: <u7paf.11880$cg.7267@news02.roc.ny>
Source record: 68266
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.antenna

aRKay wrote:
> In article <IWgaf.366$zu6.297@fed1read04>,
> "AAA RF Products" <sales@aaarfproducts.com> wrote:
>
>
>>Please email sales@aaarfproducts.com for your free copy of our latest
>>catalog, or see www.aaarfproducts.com
>
>
> The real address is http://aaarfproducts.com/ not what is listed above

Both of them worked fine for me and both brought up the same page.

3070. Higher antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 14:37:28 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <zgpaf.55676$RG4.17750@fe05.lga>
Source record: 68267

I'm putting up a tower in the next week or so. It will have a TA33.

I've been putting up antennas for years, but never with a tower. I know the old adage that you should put up as much aluminum as you can afford as high as you can put it. However, will there be a noticeable difference between 34' and 44'? I work DX and with the declining sunspots, I suspect that on some weak signals it might.

Thanks

Dave - W5GT

3071. Re: 1 Section 25G in DFW area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 14:38:42 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <Lhpaf.55679$RG4.3204@fe05.lga>
Source record: 68268

Found a section - thanks

Dave - W5GT

"W5GT" <w5gt@arrl.net> wrote in message news:Fnr9f.7204$7s1.6016@fe04.lga...
> I need one section of 25G in the Dallas/Ft Worth area. Please contact me
at
> w5gt@arrl.net.
>
> Thanks
>
> Dave - W5GT
>
>

3072. Re: I Found It!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 15:00:58 UTC
From: richardharrison@webtv.net
Message-ID: <10023-436A262A-8@storefull-3251.bay.webtv.net>
Source record: 68271

Itv Finkleman, VE6BP wrote:
"I`ve got a copy of it somewhere on this machine."

It was worth waiting for. Many tower crews I`ve worked with had someone who told some version of the tool or bolt bag story, but Irv`s with its rain of bricks strikes me as best of all. 64 years ago I was a member of the Hod Carriers Union, AFL.

Best regards, Richard Harrison, KB5WZI

3073. Looking for a male-any race is fine

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 15:02:57 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <5h9km1h2ud7v4hro4nsdmio0j2ft77rnhl@4ax.com>
Source record: 68270
Cross-posted to: rec.radio.amateur.antenna,alt.personals.gay

Hello,
I am a swm, 31 years old and blind. I am seeking a
male to be my
partner. Race is not a particular point here. he
must be
understanding and intelligent.

Interests are hikingm camping, radio, sci-fi and
cooking.

Since I am relatively new at this (not much
experience), I am willing
to learn. My social skills are not well honed, so
I may be a little
rough around the edges.

Usenet Zone Free Binaries Usenet Server
More than 140,000 groups
Unlimited download
http://www.usenetzone.com to open account

3074. Re: Higher antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 15:04:26 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <UDpaf.28206$NJ.10809@bignews7.bellsouth.net>
Source record: 68269

Easy......

At One Wavelength the "spray" on the antenna opens fully........as you raise the antenna the angle of take off lowers......(getting you to your DX station with more apparent power).

-In W2PV's bible...the take off angle of a 3 element beam at 1 wl is 14 degrees, raise it to 1.5 WL and now the take off is 9 degrees...go to 2 WL and its 7 degrees.

-Now take into consideration the useable angle of propagation, as the angle rises you will begin to use the higher lobes of your antenna.

-There are times that because of the very high propagation angle my vertical is stronger than my 5 ele @ 150' and my 4 element at 106' and my multibander at 68'......

Bill
http://www.kc4pe.com/amateurshack.htm

"W5GT" <w5gt@arrl.net> wrote in message
news:zgpaf.55676$RG4.17750@fe05.lga...
> I'm putting up a tower in the next week or so. It will have a TA33.
>
> I've been putting up antennas for years, but never with a tower. I know
> the
> old adage that you should put up as much aluminum as you can afford as
> high
> as you can put it. However, will there be a noticeable difference between
> 34' and 44'? I work DX and with the declining sunspots, I suspect that on
> some weak signals it might.
>
> Thanks
>
> Dave - W5GT
>
>

3075. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 15:59:29 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <2oop33-r9a.ln1@p400bob.personal.cox.net>
Source record: 68272

Hi Jim

Along with comments from Dave I thought it might be worth mentioning a few more points.

Think of 900MHz as line of sight and any obstruction is an issue to plan for. It is worth keeping the antenna gain low because of wave slap action tilting the structure and radiation pattern. Also consider mounting it as high as you can off the water surface, say a few metres. Hopefully this will allow for the device rolling into a wave trough whilst still giving you reasonable range. The best analogy here is to replace the antenna with a lamp and se how far you can see it from.

If you end up needing high antenna gain consider gimballing the antenna to keep it oriented properly. I'd stick to providing the gain at the ship/shore end though.

If multipath reflections and cancellations are a problem (and honestly I dont think they are in a water/wave environment - more an issue between trees and buildings) then consider a horizontal antenna like a halo, bent dipole or "3 leaf clover". The plus with a horizontal is that the antenna aperture is wide rather than high so phase cancellations are much less of a problem.

You should also consider that what ever data you are sending might be lost periodically so whatever it is make sure there is a forward error correction or retry mechanism where needed.

Cheers Bob VK2YQA

jmorash wrote:

>
> thanks for any suggestions
> --Jim Morash
>

3076. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 16:05:24 UTC
From: richardharrison@webtv.net
Message-ID: <10021-436A3544-176@storefull-3251.bay.webtv.net>
Source record: 68273

Jim Morash wrote:
"It will be tough to get the antenna more than a foot (maybe two) out of the water."

It may be worth the effort for the sake of your hardware.

Distance to the horizon in miles is the square root of teice the antenna elevation in feet.
Two feet elevation puts the horizon at two miles. 20 feet slevation on the other end of your path extends it by 6 miles. Low obstructions may block a very low path at times as 900 MHz requires a line-of-sight path. You might anchor a buoy to hold your antenna at a convenient height.

A 1/2-wave coaxial dipole works about as well as any VHF or UHF antenna on a boat or float. Commercial versions use 1/4-wave of rigid tubing as a skirt over the coax feedline. This tubing is the lower half of the antenna. The upper half is a 1/4-wave whip mounted on the lower half. There are no radials to get in the way or poke out any eyes.

Best regards, Richard Harrison, KB5WZI

3077. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 16:41:34 UTC
From: "Steve - www.ukspeedtraps.co.uk" <ask@please.com>
Message-ID: <dkdeju$l8b$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68274

"HS" <hmjs@spray.se> wrote in message
news:bnoaf.149862$dP1.507670@newsc.telia.net...
> 2m antenna?
>
> -Simple!
>
> Cut a piece of wire, 1/4 wave long.
>
> Solder wire to inner lead of the end of a coaxial cable.
>
> Find a stick of wood, plastic or fiberglass, at least 3/4 wl long.
>
> Tape wire and coax to stick.
>
> Fix stick to rucksack, so that the antenna wire is as high as possible.
>
> Connect coax to radio.
>
> That's it!
>
>
> 73 de Hans, SM3PXG
>
>

Thanks for that, so a 1/4 wave does not need a counterpoise then?

Steve

3078. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 16:43:56 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1131036236.724970.11700@z14g2000cwz.googlegroups.com>
Source record: 68275

That makes sense. Thanks for the tips.

On page 16-23 of the ARRL Antenna Book, 19th ed, Figure 35B shows a very simple vertical J design. It's open-stub, direct fed from (in fact, pretty much made out of) 50ohm coax, with a 3/4 wave length of core conductor and a parallel 1/4 wave wire coming off the shield. Looks almost too easy... any thoughts on how this would compare to the 1/4 wave whip with ground radials? It's got a larger aperture, but I don't understand how the grounding is meant to work...

3079. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 17:19:29 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <BEraf.8089$BZ5.4265@newssvr13.news.prodigy.com>
Source record: 68126

Steve - www.ukspeedtraps.co.uk wrote:
> Thanks for that, so a 1/4 wave does not need a counterpoise then?

Strip 1/4WL of insulation from the coax. Fold the outside
braid back along the coax. That will leave you 1/4WL of
center conductor exposed (you can leave the center
insulation in place) and the braid will provide the
other half of the antenna which should be insulated
to avoid backpacking RF burns. Kraus calls such a
"vertical 1/2WL sleeve antenna. On edge it looks like:

```
------------------+
------------------------------+ 1/4WL
==================================================
------------------------------+
------------------+
1/4WL
```

--
73, Cecil http://www.qsl.net/w5dxp

3080. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 17:30:43 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1131039043.785167.82020@g44g2000cwa.googlegroups.com>
Source record: 68127

Richard (& Bob),

I didn't think of simply calculating the distance to the horizon...
oops.

The problem is that this is a mobile device that will spend most of its
time underwater. It will not be particularly stable at the free
surface, hence it will be tough to support a tall antenna mast without
it waving around wildly. The taller it is, the more it's going to move
around.

3081. Re: Coax Cable, Connector & Adapter Catalog available at no charge.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 17:32:25 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <JQraf.1734$43.999@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 68128
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.antenna

On 03/11/2005 6:50 AM, aRKay wrote:
> In article <IWgaf.366$zu6.297@fed1read04>,
> "AAA RF Products" <sales@aaarfproducts.com> wrote:
>
>> Please email sales@aaarfproducts.com for your free copy of our latest
>> catalog, or see www.aaarfproducts.com
>
> The real address is http://aaarfproducts.com/ not what is listed above

The hostname ("www") can be left off in most cases when contacting the
default web site. Failure to set things up like this on a commercial
site is usually considered an error.

3082. Re: Higher antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 17:34:08 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dkdhmp$d6r$1@news.netins.net>
Source record: 68129

The center of the first lobe's elevation angle can be calculated by:

arcsin of (a/4*H), where a=1 and H = the antenna height in wavelengths.

Plugging in 34 and 44 feet respectively (after normalizing to wavelengths), will show you how much improvement you are likely to see in reducing the takeoff angle.

Keep in mind the TOA is a cone or lobe, not a line.

At 14.1 Mhz, a wavelength is approx 69 feet. So 34/69 is .49. The value of H for 20m and 34 feet is .49. The formula then is arcsin of 1/(4*.49)....this will give you the TOA (takeoff angle) for your horizontal antenna at 34'. Do the same calculation for 44' and you will see the TOA is lower.

Do the calculation for each band you are interested in. Be sure to calculate the wavelength for each band:

982/f, where f is in Megahertz.

BTW, the first null is found by using a=2, the 2nd lobe (if there is one) will be found at a=3, the second null (if there is one) will be found at a=4

You will see these additional lobes and nulls on 10 meters, but not on 20m

Hope this helps. 73

...hasan, N0AN

p.s. Every little bit helps if you are a DX'er.

"W5GT" <w5gt@arrl.net> wrote in message
news:zgpaf.55676$RG4.17750@fe05.lga...
> I'm putting up a tower in the next week or so. It will have a TA33.
>
> I've been putting up antennas for years, but never with a tower. I know
> the
> old adage that you should put up as much aluminum as you can afford as
> high
> as you can put it. However, will there be a noticeable difference between
> 34' and 44'? I work DX and with the declining sunspots, I suspect that on
> some weak signals it might.
>
> Thanks
>
> Dave - W5GT
>
>

3083. Re: Higher antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 18:19:29 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <dkdkbhfdg1@news.netins.net>
Source record: 68130

That should have been 984/f, not 982...bad memory.

N0AN
"hasan schiers" <schiers@netins.net> wrote in message
news:dkdhmp$d6r$1@news.netins.net...
> The center of the first lobe's elevation angle can be calculated by:
>
> arcsin of (a/4*H), where a=1 and H = the antenna height in wavelengths.
>
> Plugging in 34 and 44 feet respectively (after normalizing to
> wavelengths), will show you how much improvement you are likely to see in
> reducing the takeoff angle.
>
> Keep in mind the TOA is a cone or lobe, not a line.
>
> At 14.1 Mhz, a wavelength is approx 69 feet. So 34/69 is .49. The value of
> H for 20m and 34 feet is .49. The formula then is arcsin of
> 1/(4*.49)....this will give you the TOA (takeoff angle) for your
> horizontal antenna at 34'. Do the same calculation for 44' and you will
> see the TOA is lower.
>
> Do the calculation for each band you are interested in. Be sure to
> calculate the wavelength for each band:
>
> 982/f, where f is in Megahertz.
>
> BTW, the first null is found by using a=2, the 2nd lobe (if there is one)
> will be found at a=3, the second null (if there is one) will be found at
> a=4
>
> You will see these additional lobes and nulls on 10 meters, but not on 20m
>
> Hope this helps. 73
>
> ...hasan, N0AN
>
> p.s. Every little bit helps if you are a DX'er.
>
>
> "W5GT" <w5gt@arrl.net> wrote in message
> news:zgpaf.55676$RG4.17750@fe05.lga...
>> I'm putting up a tower in the next week or so. It will have a TA33.
>>
>> I've been putting up antennas for years, but never with a tower. I know

>> the
>> old adage that you should put up as much aluminum as you can afford as
>> high
>> as you can put it. However, will there be a noticeable difference between
>> 34' and 44'? I work DX and with the declining sunspots, I suspect that on
>> some weak signals it might.
>>
>> Thanks
>>
>> Dave - W5GT
>>
>>
>
>

3084. Re: Backpack Antenna, help please

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 18:41:00 UTC
From: "Steve - www.ukspeedtraps.co.uk" <ask@please.com>
Message-ID: <dkdljs$dh2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68131

"Cecil Moore" <mycall@arrl.net> wrote in message
news:BEraf.8089$BZ5.4265@newssvr13.news.prodigy.com...
> Steve - www.ukspeedtraps.co.uk wrote:
>> Thanks for that, so a 1/4 wave does not need a counterpoise then?
>
> Strip 1/4WL of insulation from the coax. Fold the outside
> braid back along the coax. That will leave you 1/4WL of
> center conductor exposed (you can leave the center
> insulation in place) and the braid will provide the
> other half of the antenna which should be insulated
> to avoid backpacking RF burns. Kraus calls such a
> "vertical 1/2WL sleeve antenna. On edge it looks like:
>
> -------------------+
> -------------------------------+ 1/4WL
> ==
> -------------------------------+
> -------------------+
> 1/4WL
> --
> 73, Cecil http://www.qsl.net/w5dxp

In that case I do that, and feed it all up the inside of the top element of
a fishing pole I also use for SOTA work with a small beam. I can then seal
it in with aradite.
Thanks again
Steve

3085. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 19:03:27 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-FCFD0B.10035803112005@netnews.worldnet.att.net>
Source record: 68132

In article <1130962168.655457.263840@f14g2000cwb.googlegroups.com>,
"jmorash" <jmorash@gmail.com> wrote:

> Hi folks,
>
> I've got some background in EE, but know very little about antennas
> (though I have a copy of the ARRL Antenna Book I'm reading now), so
> please bear with me if these are newbie questions.
>
> I need to communicate with a device floating on the surface of the
> ocean, at ranges of several miles or more, using a 900MHz radio link.
> Vertically polarized seems to be the way to go, to get true
> omnidirectional reception. My shore- or ship-side antenna can easily be
> placed 20' or more above the surface of the water, and I can use an
> off-the-shelf, moderate gain (5-6 dB) product with a nice fiberglass
> radome, etc.
>
> It's the remote side that's the problem. I need to fabricate my own
> antenna, rather than buying one, for packaging and waterproofing
> reasons. I have a 50 ohm coax transmission line coming out of the
> electronics housing; right now I'm just modifying the end of that cable
> into a "coaxial dipole" (design I found on the internet). This is a 1/2
> wave section of core, with the corresponding 1/2 wave section of shield
> folded back down over the feedline, to form a simple dipole.
>
> The coaxial dipole works OK at short ranges (up to a mile or so), but
> there must be a better way to do this. In fact, based on the stuff I'm
> reading, it seems that a dipole is a "balanced" antenna, but a coax
> feed is "unbalanced" ... would I be better off with a whip and small
> metal ground plane? How would I match this type of antenna to 50 ohms?
> What sort of instrument would I need in order to check the impedance?
> Essentially I'm looking for something easy to build without much (if
> any) tuning required, doesn't need to be high gain.
>
> It will be tough to get the antenna more than a foot (maybe two) out of
> the water, and the platform will be rolling and bobbing around a lot,
> so I'm reluctant to use the seawater as a ground plane. Figure the
> tuning would change too much. I also expect that in general, a low-gain
> antenna on the remote side will be better - generous vertical
> beamwidth.
>
> thanks for any suggestions
> --Jim Morash
>

You might want to look a a 1/2 Wave vertical base loaded antenna
similar to the 1/2 Wave used on sailboat mast tops. Morad makes
one for Vhf. Your real problem will be, when weather causes the
SeaState to be higher than the antenna above the wave troughs.
In this state you range is going to be considerably reduced whenever
the bouy is in a trough. You might just look at designing a
fiberglass antenna mast like 6 Ft long with a counterweight at the
bottom anchorpoint, the electronics package in the middle, and the
antenna at the top, which would give the bouy's antenna 3 Ft elevation
above the SeaState. In a past life, I designed some monitoring bouys
for NOAA, and this is how we solved the antenna problems. Still didn't
solve all the SeaState problems for Heavy Seas, but worked very well
for up to 4 Ft Seas. 900 Mhz isn't exactly the best choice for Maritime
bouys, for just these reasons. You ight also look at the transmission
data protocol, and see if it is compatable with lost packet recovery
techneques, as when the bouy is in moderate to heavy seas, you going
to lose about half the data packets due to SeaState Path losses, which
will seriuously cut into the data thruput your expecting.

Bruce in alaska
--
add a <2> before @

3086. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 19:30:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mkpacbse140df@corp.supernews.com>
Source record: 68133

Dave wrote:
>
> a solid ground plane would be more efficient, but is of course bigger,
> heavier, and more wind load if you are worried about it blowing around. the
> 3-4 radials bent down gives an easy way to fine tune the impedance... of
> course if they aren't stiff enough they can get bent if slapped around in
> waves.

Why would a solid ground plane be more efficient? What's the loss
mechanism in radials?

Roy Lewallen, W7EL

3087. modeling of probe-fed patch antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 19:37:41 UTC
From: shuisheng <shuisheng75@yahoo.com>
Message-ID: <1131046661.030125.144750@o13g2000cwo.googlegroups.com>
Source record: 68134

I am trying to use FDTD to model probe-fed patch antenna. A resistive voltage source is excited. But the results are not very good. Anybody can give me some suggestion or references on it? Thanks in advance!

3088. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 19:47:21 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkdpgd$1ve$1@news.service.uci.edu>
Source record: 68135

Richard Clark wrote:

> On Fri, 28 Oct 2005 20:37:07 GMT, Ron <rmrippy@hotmail.com> wrote:
>
>
>>Assume an incoming rf signal has exactly the same strength in all 3
>>dimensions i.e., completely omnidirectional. Question: would an
>>antenna having gain capture any more signal power than a completely
>>omnidirectional antenna with no gain?
>
>
> Hi All,
>
> Well, it is time to discard the speculation and let modeling approach
> this for an answer that at least offers more than swag.
>
> First we strip away the sphere and solve this in two dimensions. To
> do that we simply construct a ring of sources surrounding the
> prospective antennas and let the winning design emerge.
>
> EZNEC+ ver. 4.0
>
> Dipole in Ring of Sources 11/2/2005 10:00:48 PM
>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 4.783 V. at 23.52 deg.
> Current = 0.06643 A. at 23.52 deg.
> Impedance = 72 + J 0 ohms
> Power = 0.3177 watts
>
> Total applied power = 2000 watts
>
> Total load power = 0.3177 watts
> Total load loss = 0.001 dB
>
>
> EZNEC+ ver. 4.0
>
> Vert Yagi in Ring of Sources 11/2/2005 10:21:32 PM
>
> --------------- LOAD DATA ---------------

>
> Frequency = 70 MHz
>
> Load 1 Voltage = 1.418 V. at 25.9 deg.
> Current = 0.1182 A. at 25.9 deg.
> Impedance = 12 + J 0 ohms
> Power = 0.1676 watts
>
> Total applied power = 2000 watts
>
> Total load power = 0.1676 watts
> Total load loss = 0.0 dB
>
>
> As the Bard would offer, there's many a slip between the cup and the
> lip. For a first pass approximation, and for all the potential for
> errors (which can now be routed out instead of gummed to death), it
> appears that the low gain (directivity) dipole absorbs more power than
> the high gain (directivity) yagi.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

What is the plane of polarization of the ring of sources, and what is
the orientation of the dipole?

73, ac6xg

3089. Re: What is low profile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 20:15:24 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkdr4sbkd1@engnntp2.cig.mot.com>
Source record: 68137

This is not a technical term. It is a relative descriptor and can mean many
things. The words simply mean an antenna that is lower than somebody's idea
of a non low-profile or normal antenna.

The meaning of "low" should be obvious; "less than... in some respect.
Usually a physical dimension."
Profile can refer to height or width. Most commonly the height off a
surface. Examples already given accepted.

73, Steve, K9DCI

"Owen Duffy" <owen@no.where> wrote in message
news:9acim1t0tlrkajfb4eo9mlecb6tnth1obe@4ax.com...
> On Wed, 2 Nov 2005 21:09:15 -0000, "Dave" <noone@nowhere.com> wrote:
>
> >
> >"shuisheng" <shuisheng75@yahoo.com> wrote in message
> >news:1130962926.892429.129340@z14g2000cwz.googlegroups.com...
> >>I am new to antenna field. Anyboday can explain to me what is low
> >> profile antenna? Many thanks.
> >>
> >
> >in addition to the other definitions of 'low profile' it could also refer
to
>
> Some of those "other definitions" might be better described "low
> (visual) impact", rather than low profile.
>
> >a thin aerodynamic antenna such as the patch antennas and other designs
used
> >for car roofs for satellite reception or on aircraft where air flow is
> >critical.
>
> Sounds good.
>
>
> Owen
> --

3090. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 20:20:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <45skm1h8c5ah4ooa1ll3eotts2gu7o3k0u@4ax.com>
Source record: 68136

On Thu, 03 Nov 2005 11:47:21 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>What is the plane of polarization of the ring of sources, and what is
>the orientation of the dipole?

Hi Jim,

Vertical in free space (which, of course, has no direction, but we
know what Vertical implies). This also includes the yagi.

73's
Richard Clark, KB7QHC

3091. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 20:39:55 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkdsircog1@engnntp2.cig.mot.com>
Source record: 68138

Finally someone mentinoed the curvature of the sea...

Answers:

The 1/4 wave ground plane with a flat plate or 3-5 radials [drooping or not]; the coaxial "sleeve" dipole and the "J" are all pretty much the same thing / pattern-wise. The "J" and sleeve/coaxial dipole may be easier to get up higher, however.

The sleeve dipole is a 1/2 wave TOTAL, just like a regular dipole and coax feed is standard. The "j" is nothing more than an end fed 1/2 wave (where the 1/2 wave dipole is a center fed half-wave).
These are all fairly simple to make and the "J" shouldn't be a big problem, even with it's much debated so-called feed-line radiation 'problem'. They work just fine.
I think the main issues are:
1- As Richard correctly points out, sea / earth curvature means there is a minimum altitude required for a given receiver distance. With this case of the low "bouy", it will be the larger of determining factors and the other end will require greater altitude to make up for small changes at the "bouy".

2- Sea action means an omni gain antenna is contraindicated (not a good idea) because there will be larger variations in signal strength as it bobs around. This is because this "gain" is obtained by compressing the radiation pattern more toward the horizontal and as the "bouy" rocks, you more quickly get to the points where the signal drops off - above and below the horizontal where the signal peaks. Trying to get a "stable" platform with non active means (perhaps a weighted pendulub under the antenna on a gimble) won't work well due to the accelelrations involved - it may rock more than the "bouy". I would first try a stabilizing "keel" if this is an option, to provide a little stability to the "bouy". Depending on its construction, it may rock moerthan the surface, but be stabilized by being "anchored" to the water below (which win't be moving as much as teh "bouy" can.

Just like in real estate, the three most inportant things in antennas are altitude, altitude altitude...

Hope this helps & good luck
73, Steve, K,9.D;C'I

"jmorash" <jmorash@gmail.com> wrote in message
news:1131039043.785167.82020@g44g2000cwa.googlegroups.com...
> Richard (& Bob),
>

> I didn't think of simply calculating the distance to the horizon...
> oops.
>
> The problem is that this is a mobile device that will spend most of its
> time underwater. It will not be particularly stable at the free
> surface, hence it will be tough to support a tall antenna mast without
> it waving around wildly. The taller it is, the more it's going to move
> around.
>

3092. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 21:44:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dke0ci$5ei$1@news.service.uci.edu>
Source record: 68139

Richard Clark wrote:

> On Thu, 03 Nov 2005 11:47:21 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>What is the plane of polarization of the ring of sources, and what is
>>the orientation of the dipole?
>
>
> Hi Jim,
>
> Vertical in free space (which, of course, has no direction, but we
> know what Vertical implies). This also includes the yagi.

If you wouldn't mind, try moving your Yagi a half wave forward or reverse.

ac6xg

3093. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 22:38:26 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1131057506.111016.316920@g14g2000cwa.googlegroups.com>
Source record: 68140

Steve,

I agree that the sleeve dipole, coax-based J, and whip with radials should all have the same radiation pattern, but I get the impression that performance might vary quite a bit (specifically the impedance matching?).

As far as increasing height goes, I agree, the thinner antennas will be easier to raise than the version with radials.

Thanks all for helping me think this through. Now I need to do some testing.

3094. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 22:47:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <694lm11uggfh0vhmk4t3c5i39p8tr44sgg@4ax.com>
Source record: 68141

On Thu, 03 Nov 2005 13:44:47 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>If you wouldn't mind, try moving your Yagi a half wave forward or reverse.

Moving back one half wave:

EZNEC+ ver. 4.0

Vert Yagi in Ring of Sources 11/3/2005 2:37:02 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 1.655 V. at -135.94 deg.
Current = 0.1379 A. at -135.94 deg.
Impedance = 12 + J 0 ohms
Power = 0.2283 watts

Total applied power = 2000 watts

Total load power = 0.2283 watts
Total load loss = 0.0 dB

moving it such that its "driven" element is dead center to all
radiators (original configuration had the reflector in dead center):

EZNEC+ ver. 4.0

Vert Yagi in Ring of Sources 11/3/2005 2:40:58 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 1.584 V. at -22.13 deg.
Current = 0.132 A. at -22.13 deg.
Impedance = 12 + J 0 ohms
Power = 0.2091 watts

Total applied power = 2000 watts

Total load power = 0.2091 watts
Total load loss = 0.0 dB

73's
Richard Clark, KB7QHC

3095. Re: Looking for a male-any race is fine

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 23:01:24 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <SDwaf.15409$IB.1775@dukeread11>
Source record: 68142

N7ZZT - Eric Oyen wrote:

> Hello,
> I am a swm, 31 years old and blind. I am seeking a
> male to be my
> partner. Race is not a particular point here. he
> must be
> understanding and intelligent.
>
>
> Interests are hikingm camping, radio, sci-fi and
> cooking.
>
>
> Since I am relatively new at this (not much
> experience), I am willing
> to learn. My social skills are not well honed, so
> I may be a little
> rough around the edges.
>
>
>
> _____
> Usenet Zone Free Binaries Usenet Server
> More than 140,000 groups
> Unlimited download
> http://www.usenetzone.com to open account

hehehehe.

trying to forge me and using an old forge at that?

HAHAHAHA

try again!

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

3096. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-03 23:13:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dke5jl$86n$1@news.service.uci.edu>
Source record: 68143

Richard Clark wrote:

> On Thu, 03 Nov 2005 13:44:47 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>If you wouldn't mind, try moving your Yagi a half wave forward or reverse.
>
>
> Moving back one half wave:
>
> EZNEC+ ver. 4.0
>
> Vert Yagi in Ring of Sources 11/3/2005 2:37:02 PM
>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 1.655 V. at -135.94 deg.
> Current = 0.1379 A. at -135.94 deg.
> Impedance = 12 + J 0 ohms
> Power = 0.2283 watts
>
> Total applied power = 2000 watts
>
> Total load power = 0.2283 watts
> Total load loss = 0.0 dB
>
>
> moving it such that its "driven" element is dead center to all
> radiators (original configuration had the reflector in dead center):
>
> EZNEC+ ver. 4.0
>
> Vert Yagi in Ring of Sources 11/3/2005 2:40:58 PM
>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 1.584 V. at -22.13 deg.
> Current = 0.132 A. at -22.13 deg.
> Impedance = 12 + J 0 ohms

> Power = 0.2091 watts
>
> Total applied power = 2000 watts
>
> Total load power = 0.2091 watts
> Total load loss = 0.0 dB
>
> 73's
> Richard Clark, KB7QHC

It looks like you'd have to use an array of non-coherent sources in order to get rid of the phase cancellation effects (and really see what's going on).

Thanks Richard.

ac6xg

3097. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 00:42:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rgblm1le5e1u2f0pc6bnuo6vo7aml50ib8@4ax.com>
Source record: 68144

On Thu, 03 Nov 2005 15:13:53 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>It looks like you'd have to use an array of non-coherent sources in
>order to get rid of the phase cancellation effects (and really see
>what's going on).

Hi Jim,

Then it would be answering a different problem.

73's
Richard Clark, KB7QHC

3098. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 01:42:58 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dkeeb7$cg3$1@news.service.uci.edu>
Source record: 68145

Richard Clark wrote:

> On Thu, 03 Nov 2005 15:13:53 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>It looks like you'd have to use an array of non-coherent sources in
>>order to get rid of the phase cancellation effects (and really see
>>what's going on).
>
>
> Hi Jim,
>
> Then it would be answering a different problem.
>
> 73's
> Richard Clark, KB7QHC

An antenna one, rather than an antenna +/- source one. Yes.

73, ac6xg

3099. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 01:56:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4velm1dd5lp7trcuncsf2e5c8ctlhjgavt@4ax.com>
Source record: 68146

```
On Thu, 03 Nov 2005 15:13:53 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:
>use an array of non-coherent sources

EZNEC+ ver. 4.0

Dipole in Ring of Rnd Sources 11/3/2005 5:39:03 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 0.002611 V. at -33.23 deg.
Current = 3.627E-05 A. at -33.23 deg.
Impedance = 72 + J 0 ohms
Power = 9.47E-08 watts

Total applied power = 1364 watts

Total load power = 9.47E-08 watts
Total load loss = 0.0 dB

then moved quarterwave:

EZNEC+ ver. 4.0

Dipole in Ring of Rnd Sources 11/3/2005 5:41:17 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 0.00676 V. at -110.1 deg.
Current = 9.389E-05 A. at -110.1 deg.
Impedance = 72 + J 0 ohms
Power = 6.348E-07 watts

Total applied power = 1364 watts

Total load power = 6.348E-07 watts
Total load loss = 0.0 dB

then moved backwards a quarterwave

EZNEC+ ver. 4.0

Dipole in Ring of Rnd Sources 11/3/2005 5:44:52 PM

--------------- LOAD DATA ---------------
```

Frequency = 70 MHz

Load 1 Voltage = 0.004604 V. at 29.97 deg.
Current = 6.395E-05 A. at 29.97 deg.
Impedance = 72 + J 0 ohms
Power = 2.944E-07 watts

Total applied power = 1364 watts

Total load power = 2.944E-07 watts
Total load loss = 0.0 dB

EZNEC+ ver. 4.0

Yagi in Ring of Rnd Sources 11/3/2005 5:48:14 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 0.07004 V. at 66.62 deg.
Current = 0.005837 A. at 66.62 deg.
Impedance = 12 + J 0 ohms
Power = 0.0004088 watts

Total applied power = 1364 watts

Total load power = 0.0004088 watts
Total load loss = 0.0 dB

moved back halfwave:

EZNEC+ ver. 4.0

Yagi in Ring of Rnd Sources 11/3/2005 5:51:43 PM

--------------- LOAD DATA ---------------

Frequency = 70 MHz

Load 1 Voltage = 0.09133 V. at -53.63 deg.
Current = 0.007611 A. at -53.63 deg.
Impedance = 12 + J 0 ohms
Power = 0.0006952 watts

Total applied power = 1364 watts

Total load power = 0.0006952 watts
Total load loss = 0.0 dB

> (and really see what's going on)

Hmmm, at least 1000 times more response... so what's going on? (aside
from a possibly poor implementation of random). Trying to refine the
sources table with tighter random assignments is positively brutal
under EZNEC's primitive (read no) handling of columnar data.

73's
Richard Clark, KB7QHC

3100. Swap. NEW ARRL ANTENNA BOOK 20ed.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 12:51:47 UTC
From: Mike Kulyk <mkulyk@optonline.net>
Message-ID: <HPIaf.50007$rE2.27398@fe10.lga>
Source record: 68147
Cross-posted to: rec.radio.swap,rec.radio.amateur.swap,rec.radio.amateur.homebrew,rec.radio.amateur.antenna

This is a new ARRL Antenna Book , cd and all.. never opened.

FOR ARRL Handbook.. New or one -2 years old.. Hardcover preferred..

Mike WB2GLW

3101. Antenna - Page 25-27 - Sept. 83' QST

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 14:35:58 UTC
From: "T.E.O" <rfmscpa@earthlink.net>
Message-ID: <ilKaf.5581$yX2.5410@newsread2.news.pas.earthlink.net>
Source record: 68148

I'm trying to get some info on the Antenna on Pages 25-27 of Sept. 83' QST.

I don't have access to the article & I'm wondering what the dimensions of the antenna are, the feed point/method & the ground plane (if any).

Any help would be appreciated.

3102. Selecting a rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 17:25:11 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11mn6bmit0a6e2d@corp.supernews.com>
Source record: 68149

I have never purchased a rotator before and I have one question.

You look at the specs for a given rotator, and it says that it will handle say up to 10 square feet wind load area. You then look at the antenna specs, and if the Wind Surface Area for it is less than 10 square feet, then you have a match? Is this correct?

Thanks for the help.

Rod KI7CQ

3103. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 17:44:42 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkg6ml$bl1$1@news.service.uci.edu>
Source record: 68150

Very nice work. Dissapointingly ambiguous results.

Thank you.

ac6xg

Richard Clark wrote:

> On Thu, 03 Nov 2005 15:13:53 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>>use an array of non-coherent sources
>
>
> EZNEC+ ver. 4.0
>
> Dipole in Ring of Rnd Sources 11/3/2005 5:39:03 PM
>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 0.002611 V. at -33.23 deg.
> Current = 3.627E-05 A. at -33.23 deg.
> Impedance = 72 + J 0 ohms
> Power = 9.47E-08 watts
>
> Total applied power = 1364 watts
>
> Total load power = 9.47E-08 watts
> Total load loss = 0.0 dB
>
> then moved quarterwave:
>
> EZNEC+ ver. 4.0
>
> Dipole in Ring of Rnd Sources 11/3/2005 5:41:17 PM
>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 0.00676 V. at -110.1 deg.
> Current = 9.389E-05 A. at -110.1 deg.
> Impedance = 72 + J 0 ohms

> Power = 6.348E-07 watts
>
> Total applied power = 1364 watts
>
> Total load power = 6.348E-07 watts
> Total load loss = 0.0 dB
>
> then moved backwards a quarterwave
>
> EZNEC+ ver. 4.0
>
> Dipole in Ring of Rnd Sources 11/3/2005 5:44:52 PM
>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 0.004604 V. at 29.97 deg.
> Current = 6.395E-05 A. at 29.97 deg.
> Impedance = 72 + J 0 ohms
> Power = 2.944E-07 watts
>
> Total applied power = 1364 watts
>
> Total load power = 2.944E-07 watts
> Total load loss = 0.0 dB
>
> EZNEC+ ver. 4.0
>
> Yagi in Ring of Rnd Sources 11/3/2005 5:48:14 PM
>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 0.07004 V. at 66.62 deg.
> Current = 0.005837 A. at 66.62 deg.
> Impedance = 12 + J 0 ohms
> Power = 0.0004088 watts
>
> Total applied power = 1364 watts
>
> Total load power = 0.0004088 watts
> Total load loss = 0.0 dB
>
> moved back halfwave:
>
> EZNEC+ ver. 4.0
>
> Yagi in Ring of Rnd Sources 11/3/2005 5:51:43 PM

>
> --------------- LOAD DATA ---------------
>
> Frequency = 70 MHz
>
> Load 1 Voltage = 0.09133 V. at -53.63 deg.
> Current = 0.007611 A. at -53.63 deg.
> Impedance = 12 + J 0 ohms
> Power = 0.0006952 watts
>
> Total applied power = 1364 watts
>
> Total load power = 0.0006952 watts
> Total load loss = 0.0 dB
>
>
>>(and really see what's going on)
>
>
> Hmmm, at least 1000 times more response... so what's going on? (aside
> from a possibly poor implementation of random). Trying to refine the
> sources table with tighter random assignments is positively brutal
> under EZNEC's primitive (read no) handling of columnar data.
>
> 73's
> Richard Clark, KB7QHC

3104. Re: Antenna - Page 25-27 - Sept. 83' QST

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 17:55:55 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11mn85hl4a8172c@corp.supernews.com>
Source record: 68152

T.E.O wrote:
> I'm trying to get some info on the Antenna on Pages 25-27 of Sept. 83' QST.
>
> I don't have access to the article & I'm wondering what the dimensions of
> the antenna are, the feed point/method & the ground plane (if any).
>
> Any help would be appreciated.
>
>
>
A keyword search of the ARRL files turns up a reference but does not
have a link to the article. You might try getting the CD for 1983. The
article will be on it.

Dave WD9BDZ

3105. Re: Selecting a rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 17:56:44 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <whNaf.4127$2y.2069@newsread2.news.atl.earthlink.net>
Source record: 68151

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11mn6bmit0a6e2d@corp.supernews.com...
> I have never purchased a rotator before and I have one question.
>
> You look at the specs for a given rotator, and it says that it will handle
> say up to 10 square feet wind load area. You then look at the antenna
> specs, and if the Wind Surface Area for it is less than 10 square feet,
then
> you have a match? Is this correct?
>
> Thanks for the help.
>
> Rod KI7CQ

That is mostly correct. The rotator sqft rateing is the maximum of the
rotator. The antenna will also have a specification of the sqft rateing.
If you have two or more antennas on teh rotator then you have to add the
sqft of each antenna and come up with less than the rotator rating. The
bigger the differance, the more safety factor you have.
It is not usually a problem but also check for the weight the rotator will
support. Also if the rotator is inside the tower it will handle a bigger
load than if it is mounted to a pipe on top of the tower.

3106. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 18:32:07 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dkg9fjdur1@news.service.uci.edu>
Source record: 68153

Richard,

It's not clear what aspect of your sources is "Rnd", but the fact that
they are monochromatic is still problematic.

73, ac6xg

Jim Kelley wrote:
> Very nice work. Dissapointingly ambiguous results.
>
> Thank you.
>
> ac6xg
>
> Richard Clark wrote:
>
>> On Thu, 03 Nov 2005 15:13:53 -0800, Jim Kelley <jwkelley@nospam.edu>
>> wrote:
>>
>>> use an array of non-coherent sources
>>
>>
>>
>> EZNEC+ ver. 4.0
>>
>> Dipole in Ring of Rnd Sources 11/3/2005 5:39:03 PM
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>> --------------- LOAD DATA ---------------
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>> Frequency = 70 MHz
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>> Load 1 Voltage = 0.002611 V. at -33.23 deg.
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>> Impedance = 72 + J 0 ohms
>> Power = 9.47E-08 watts
>>
>> Total applied power = 1364 watts
>>
>> Total load power = 9.47E-08 watts
>> Total load loss = 0.0 dB
>>
>> then moved quarterwave:
>>
>> EZNEC+ ver. 4.0
>>

>> Dipole in Ring of Rnd Sources 11/3/2005 5:41:17 PM
>>
>> --------------- LOAD DATA ---------------
>>
>> Frequency = 70 MHz
>>
>> Load 1 Voltage = 0.00676 V. at -110.1 deg.
>> Current = 9.389E-05 A. at -110.1 deg.
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>>
>> Total applied power = 1364 watts
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>>
>> then moved backwards a quarterwave
>>
>> EZNEC+ ver. 4.0
>>
>> Dipole in Ring of Rnd Sources 11/3/2005 5:44:52 PM
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>> Total applied power = 1364 watts
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>> EZNEC+ ver. 4.0
>>
>> Yagi in Ring of Rnd Sources 11/3/2005 5:48:14 PM
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>> Frequency = 70 MHz
>>
>> Load 1 Voltage = 0.07004 V. at 66.62 deg.
>> Current = 0.005837 A. at 66.62 deg.
>> Impedance = 12 + J 0 ohms
>> Power = 0.0004088 watts
>>
>> Total applied power = 1364 watts

>>
>> Total load power = 0.0004088 watts
>> Total load loss = 0.0 dB
>>
>> moved back halfwave:
>>
>> EZNEC+ ver. 4.0
>>
>> Yagi in Ring of Rnd Sources 11/3/2005 5:51:43 PM
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>> Load 1 Voltage = 0.09133 V. at -53.63 deg.
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>> Impedance = 12 + J 0 ohms
>> Power = 0.0006952 watts
>>
>> Total applied power = 1364 watts
>>
>> Total load power = 0.0006952 watts
>> Total load loss = 0.0 dB
>>
>>
>>> (and really see what's going on)
>>
>>
>>
>> Hmmm, at least 1000 times more response... so what's going on? (aside
>> from a possibly poor implementation of random). Trying to refine the
>> sources table with tighter random assignments is positively brutal
>> under EZNEC's primitive (read no) handling of columnar data.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>

3107. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 19:34:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sgcnm1dmncnhhsbv7dsopdocbr1gjuimrv@4ax.com>
Source record: 68154

On Fri, 04 Nov 2005 10:32:07 -0800, Jim Kelley <jwkelley@uci.edu>
wrote:

>It's not clear what aspect of your sources is "Rnd", but the fact that
>they are monochromatic is still problematic.

Hi Jim,

You lost me on that curve. Monochromatic. The sources exhibit an
even distribution of varying phase in a random order. That was
tedious to accomplish, but achievable - in a group of 360 possible
degrees of phase, you eventually cover the field. On the other hand,
if you are suggesting that there needs to be an equally random
distribution of frequencies then that has its obvious issues of
practicability. What is the lowest frequency and what is the highest
frequency? That question has all the hallmarks of which infinity is
the biggest?

Anyway, I would surmise that if I could achieve both random phase and
frequency distribution, then the difference between a simple dipole's
response and that of a yagi antenna would be trivial. This would be a
given seeing that the parasitic elements would be virtually invisible,
rendering the "driven" element un-differentiable from the simple
dipole.

73's
Richard Clark, KB7QHC

3108. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 19:42:43 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dkgdk0$h13$1@news.service.uci.edu>
Source record: 68156

Richard Clark wrote:

> Anyway, I would surmise that if I could achieve both random phase and
> frequency distribution, then the difference between a simple dipole's
> response and that of a yagi antenna would be trivial.

Trivial would be a nice change.

> This would be a
> given seeing that the parasitic elements would be virtually invisible,
> rendering the "driven" element un-differentiable from the simple
> dipole.

i.e. what Roy said. But I think there's still more to it. I tried to
give the other Richard a hint about it but it didn't resonate.

73, ac6xg

3109. MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 19:43:07 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <d9enm19a9t3o05d9rd922tls1oq69vptn2@4ax.com>
Source record: 68155

I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF Analyzer.

It sounds like a Swiss Army knife device and I should be able to send a lot of old equipment to Ebay. Does anyone have any comments to make on it? Good or bad?

I have read the review in May 2005 QST and the manual available at their website.

John Ferrell, W8CCW

3110. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 19:49:52 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkge10bec1@engnntp2.cig.mot.com>
Source record: 68160

"jmorash" <jmorash@gmail.com> wrote in message
news:1131057506.111016.316920@g14g2000cwa.googlegroups.com...
> Steve,
>
> I agree that the sleeve dipole, coax-based J, and whip with radials
> should all have the same radiation pattern, but I get the impression
> that performance might vary quite a bit (specifically the impedance
> matching?).

Nope. I disagree. Commercial sleeve-coaxial dipoles are driven w 50 ohm coax, I have one - works great to extend the range of my 5-W 2 Meter hand leld for various temporary Ham communication assisted events. If you are worried about the so called 50 sv 75 ohm mis match.. Believe me, it is nothing.
Ditto for the gnd plane 37 ohm mismatch (identical SWR non issue). The antenna length can even be adjusted to get an improvesd SWR and this may not be where the antenna is purely resistive. This is way, way down the list of worries for your situation.

"J" s are matched to 50 ohms. I don't believe the much discussed feed-line radiation is a significant practical problem.

Something I thought of after clicking last time. Look @ the Arrow antenna version of the "J". It is also much discussed and argued about, but works. I haven't studied it enough to have a well reasoned opinion, but highly suspect it has advantages over the standard "J" that are not only mechanical. He has no 900 MHz version, but it is a rugged construction idea. I want to get one and measure the "bad" external feed line currents (yes, I have Fischer clamp-on RF current probes)
http://www.arrowantennas.com

There's also the "sleeve dipole with the cut shield" referred to previously on this group which looks easy and interesting. .
http://www.ansoft.com/news/articles/04.05_MWJ.pdf

One more thing I just thought of to worry about. Salt spray:
1- Corrosion of the materials used.
2- Geting into critical locations and causing unwanted conduction. I think you mentined a radome, which reminds me...
3- A plastic radome (Pipe or whatever) will require you to SHORTEN the radiating elements a bit or you'll resonate too low in frequency. [[build, insert THEN measure]]

73, Steve, K,9.D;C'I

>
> As far as increasing height goes, I agree, the thinner antennas will be
> easier to raise than the version with radials.
>
> Thanks all for helping me think this through. Now I need to do some
> testing.
>

3111. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 20:13:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mng6ldmmb08ed@corp.supernews.com>
Source record: 68157

"Swiss Army knife" is a good metaphor. In your pocket, it's always available and handy for that simple job. It's got a saw good for fast, rough cutting, but no competition for a chain saw for speed or a scroll saw for precision. The file will cut metal, but it's not a Swiss file set or a wood rasp either. And so forth. Likewise the MFJ. I use is frequently for a quick measurement, and that's often good enough. But when I really need precision, out comes the GR bridge, network analyzer, and whatever other real tools are required.

Ironically, the thing it does worst, in an urban setting at least, is actually measure antenna impedance. Like any broadband impedance meter, it's dismally bad at that particular job because RF from broadcast and other sources drives it bonkers.

So by all means get one. You'll find you use it a lot. But don't be too quick to unload your other gear.

Roy Lewallen, W7EL

John Ferrell wrote:
> I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF
> Analyzer.
>
> It sounds like a Swiss Army knife device and I should be able to send
> a lot of old equipment to Ebay. Does anyone have any comments to make
> on it? Good or bad?
>
> I have read the review in May 2005 QST and the manual available at
> their website.
>
> John Ferrell, W8CCW

3112. Re: Antenna - Page 25-27 - Sept. 83' QST

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 20:28:26 UTC
From: FredSmith <nospam@nospam.net>
Message-ID: <c2hnm1lhbuasb8trqiu2239c9c94a0crle@4ax.com>
Source record: 68158

I just emailed you a copy of the article.
73

On Fri, 04 Nov 2005 14:35:58 GMT, "T.E.O" <rfmscpa@earthlink.net>
wrote:

> I'm trying to get some info on the Antenna on Pages 25-27 of Sept. 83' QST.
>
>I don't have access to the article & I'm wondering what the dimensions of
>the antenna are, the feed point/method & the ground plane (if any).
>
>Any help would be appreciated.
>
>

3113. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 20:29:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ZwPaf.13012$Zv5.2788@newssvr25.news.prodigy.net>
Source record: 68159

Jim Kelley wrote:
> i.e. what Roy said. But I think there's still more to it. I tried to
> give the other Richard a hint about it but it didn't resonate.

Then obviously your XC didn't equal your XL.
--
73, Cecil http://www.qsl.net/w5dxp

3114. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 21:31:10 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <pcknm15n81hi49spj2hcrik3sc9dkg0j5d@4ax.com>
Source record: 68161

On Tue, 01 Nov 2005 01:13:09 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>
>
>> Why not just use the rod and reel? Admittedly some can throw farther
>> than they can cast.
>
>
> I doubt there are very many people who can either throw, or cast a
>line, at 70 feet, over a particular branch of a rather densely packed
>conifer tree. I can do it, however, with a slingshot. A bow or crossbow
>would be even better, I'll admit.
>

Well, back in my college days (the first time) I had a phys ed class
called "The techniques of Bait and Fly Casting". We had to be able to
put the "bait" through a 16" tire from the width of the field house (a
bit wider than the width of a basketball court.) to pass.

I haven't used a spinning rod in over 25 years. I'd be lucky to hit
the other side of the field house let alone the hole in the tire.
<:-))

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
> Ed

3115. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 21:53:42 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkgl96mjj1@news.service.uci.edu>
Source record: 68162

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> i.e. what Roy said. But I think there's still more to it. I tried to
>> give the other Richard a hint about it but it didn't resonate.
>
>
> Then obviously your XC didn't equal your XL.

Probably just a difference in wavelength.

ac6xg

3116. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 22:54:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <chnnm15pmakui1di6h9ve2me2gplb5m5it@4ax.com>
Source record: 68163

On Fri, 04 Nov 2005 11:42:43 -0800, Jim Kelley <jwkelley@uci.edu>
wrote:
>> This would be a
>> given seeing that the parasitic elements would be virtually invisible,
>> rendering the "driven" element un-differentiable from the simple
>> dipole.
>
>i.e. what Roy said.

>On Wed, 02 Nov 2005 00:11:09 -0800, Roy Lewallen <w7el@eznec.com> among many things wrote:
>
>>I have to admit, I was looking at this a[s] more of a problem of equal
>>signals arriving from all directions

Hi Jim,

I also approached the problem the same way, this is in glaring
contrast to what I've written in the past two posts which are vastly
divergent from this sense of "equal signals."

As I originally presented data from the model of "equal signals
arriving from all directions" it presented that a dipole's response
was separable from that of a yagi, and showed more response which
contradicts some correspondents, and aligns with others.

Such an outcome stands to reason, the yagi cannot see all sources, the
dipole can. If I illuminated the yagi from each source in turn (all
others off) and correlated the response to the source's angle, the
composite would simply reveal the characteristic yagi response lobe
and the sum of those powers MUST fall below the total power available
to the dipole.

The one over-riding difference between all these scenarios and the
expectations of the yagi is that the yagi is not illuminated with a
plane field, but with a radial field. The composite front of many
sources presents a complex antenna (the yagi) with the appearance of a
wave of extremely high curvature impinging upon it. The mechanics of
gain/directivity are not going to function in the same manner to that
yagi for both fashions of applying the power. Hence the yagi fails to
exhibit a higher response than the simple dipole.

73's
Richard Clark, KB7QHC

3117. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 23:19:37 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkgqa9keo1@engnntp2.cig.mot.com>
Source record: 68168

It's ok, but has one known short coming (other than its known and accepted general low/ medium accuracy). It appears to do worse at LOW freqs that the 259. Mine shows about 25% X for a purely resistive 4:1 load (either 200 or 12.5) in the 1-4 Mhz range. A post here not to long ago reported that the QST review showed the same thing.

you can't expect lab accuracy for $300...

73, K9DCI

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11mng6ldmmb08ed@corp.supernews.com...
> "Swiss Army knife" is a good metaphor. In your pocket, it's always
> available and handy for that simple job. It's got a saw good for fast,
> rough cutting, but no competition for a chain saw for speed or a scroll
> saw for precision. The file will cut metal, but it's not a Swiss file
> set or a wood rasp either. And so forth. Likewise the MFJ. I use is
> frequently for a quick measurement, and that's often good enough. But
> when I really need precision, out comes the GR bridge, network analyzer,
> and whatever other real tools are required.
>
> Ironically, the thing it does worst, in an urban setting at least, is
> actually measure antenna impedance. Like any broadband impedance meter,
> it's dismally bad at that particular job because RF from broadcast and
> other sources drives it bonkers.
>
> So by all means get one. You'll find you use it a lot. But don't be too
> quick to unload your other gear.
>
> Roy Lewallen, W7EL
>
> John Ferrell wrote:
> > I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF
> > Analyzer.
> >
> > It sounds like a Swiss Army knife device and I should be able to send
> > a lot of old equipment to Ebay. Does anyone have any comments to make
> > on it? Good or bad?
> >
> > I have read the review in May 2005 QST and the manual available at
> > their website.
> >
> > John Ferrell, W8CCW

3118. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 23:39:18 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkgrf6$ra5$1@news.service.uci.edu>
Source record: 68164

Richard Clark wrote:

> On Fri, 04 Nov 2005 11:42:43 -0800, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>>>This would be a
>>>given seeing that the parasitic elements would be virtually invisible,
>>>rendering the "driven" element un-differentiable from the simple
>>>dipole.
>>
>>i.e. what Roy said.
>
>
>>On Wed, 02 Nov 2005 00:11:09 -0800, Roy Lewallen <w7el@eznec.com> among many things
wrote:
>>
>>
>>>I have to admit, I was looking at this a[s] more of a problem of equal
>>>signals arriving from all directions
>
>
> Hi Jim,
>
> I also approached the problem the same way, this is in glaring
> contrast to what I've written in the past two posts which are vastly
> divergent from this sense of "equal signals."
>
> As I originally presented data from the model of "equal signals
> arriving from all directions" it presented that a dipole's response
> was separable from that of a yagi, and showed more response which
> contradicts some correspondents, and aligns with others.
>
> Such an outcome stands to reason, the yagi cannot see all sources, the
> dipole can. If I illuminated the yagi from each source in turn (all
> others off) and correlated the response to the source's angle, the
> composite would simply reveal the characteristic yagi response lobe
> and the sum of those powers MUST fall below the total power available
> to the dipole.
>
> The one over-riding difference between all these scenarios and the
> expectations of the yagi is that the yagi is not illuminated with a
> plane field, but with a radial field. The composite front of many
> sources presents a complex antenna (the yagi) with the appearance of a
> wave of extremely high curvature impinging upon it. The mechanics of

> gain/directivity are not going to function in the same manner to that
> yagi for both fashions of applying the power. Hence the yagi fails to
> exhibit a higher response than the simple dipole.
>
> 73's
> Richard Clark, KB7QHC

Let me thank you again for the work you've put in on this. The thing is, the idea of squeezing a dipole field pattern into the shape of a Yagi pattern for example, pretty much dictates that with the proper field geometry, we should be able to realize equal amounts of energy in both antennas. I think that's the correct answer. I'm just trying to see a way to get to it. Another approach might be to integrate the results from a large number of point sources.

73, AC6XG

3119. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 23:42:16 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <86snm1d2aob4sm5rmlqc5s0ehdpt1a2349@4ax.com>
Source record: 68165

Thanks for the quick reply.
The "old equipment" I am referring to is pretty primitive and quite
old.
The only really good pice of equipment I wonder about replacing is an
Heathkit IM-4190 directional coupler for 100-1000 mhz. It was not
available for long and it has served me well on 144 & 440 mhz.

John Ferrell, W8CCW

On Fri, 04 Nov 2005 12:13:06 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>"Swiss Army knife" is a good metaphor. In your pocket, it's always
>available and handy for that simple job. It's got a saw good for fast,
>rough cutting, but no competition for a chain saw for speed or a scroll
>saw for precision. The file will cut metal, but it's not a Swiss file
>set or a wood rasp either. And so forth. Likewise the MFJ. I use is
>frequently for a quick measurement, and that's often good enough. But
>when I really need precision, out comes the GR bridge, network analyzer,
>and whatever other real tools are required.
>
>Ironically, the thing it does worst, in an urban setting at least, is
>actually measure antenna impedance. Like any broadband impedance meter,
>it's dismally bad at that particular job because RF from broadcast and
>other sources drives it bonkers.
>
>So by all means get one. You'll find you use it a lot. But don't be too
>quick to unload your other gear.
>
>Roy Lewallen, W7EL

3120. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 23:42:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mnserb5miuj86@corp.supernews.com>
Source record: 68166

jmorash wrote:
>
> I agree that the sleeve dipole, coax-based J, and whip with radials
> should all have the same radiation pattern, but I get the impression
> that performance might vary quite a bit (specifically the impedance
> matching?).

Impedance matching isn't much of a problem with any of those antennas. The main issue is feedline decoupling. Current will end up on the outside of the feedline unless, of course, your antenna is mounted directly on a metal structure -- in which case the current will end up on the outside of the metal structure. This current radiates just like the current in the antenna, and this added radiation can cause a number of problems. One is that it can modify the pattern and reduce the radiation toward the horizon. Another is that the current can get back into the transmitter and other circuitry where it doesn't belong. Finally, it can effect a change in feedpoint impedance, since the coax is part of the antenna you probably didn't account for.

The current can originate by two mechanisms, conducted and coupled. http://eznec.com/Amateur/Articles/Baluns.pdf explains the conducted mechanism. Current can be coupled from the antenna to the feedline even if you're using a solid ground plane of moderate diameter, and all the popular implementations have coupled current to some extent. If you search for a while, you'll find people both raving about and raving at J-Poles. I suspect this is at least partially due to the amount and phase of coupled current they ended up with due to their particular installation. The amount of coupled current depends on the length and path of the feedline, as well as the path to ground or some large body. If I were designing the antenna you describe, I'd use a "current balun" (common mode choke -- see the balun article) at the feedpoint and about a quarter wavelength down the line. At that frequency, a good size ferrite core or two of the right type might provide adequate impedance.

Half wave antennas have relatively little conducted current because the feedpoint impedance is so high. But feedline current can still exist due to coupling.

Roy Lewallen, W7EL

3121. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-04 23:45:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mnsl5ek4mej18@corp.supernews.com>
Source record: 68167

Richard Clark wrote:
> . . .
> Such an outcome stands to reason, the yagi cannot see all sources, the
> dipole can. If I illuminated the yagi from each source in turn (all
> others off) and correlated the response to the source's angle, the
> composite would simply reveal the characteristic yagi response lobe
> and the sum of those powers MUST fall below the total power available
> to the dipole.
>

Yet if you provide the same power to the dipole and the Yagi and integrate the total field from each, the total field powers from both are the same.

So is reciprocity invalid?

Roy Lewallen, W7EL

3122. Re: Antenna - Page 25-27 - Sept. 83' QST

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 01:10:59 UTC
From: "T.E.O" <rfmscpa@earthlink.net>
Message-ID: <DETaf.5755$yX2.1123@newsread2.news.pas.earthlink.net>
Source record: 68170

I got it. Thanks Fred. Much appreciated.

"FredSmith" <nospam@nospam.net> wrote in message
news:c2hnm1lhbuasb8trqiu2239c9c94a0crle@4ax.com...
> I just emailed you a copy of the article.
> 73
>
> On Fri, 04 Nov 2005 14:35:58 GMT, "T.E.O" <rfmscpa@earthlink.net>
> wrote:
>
> > I'm trying to get some info on the Antenna on Pages 25-27 of Sept. 83'
QST.
> >
> >I don't have access to the article & I'm wondering what the dimensions of
> >the antenna are, the feed point/method & the ground plane (if any).
> >
> >Any help would be appreciated.
> >
> >
>

3123. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 01:13:15 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <y76dnVGihOT9m_HeRVn-ow@trueband.net>
Source record: 68169

Yes, it works fine. Not a precision piece of test equipment but also does not carry the price tag. Like everything else in life it is a trade off, great price with reasonable response. All in all it is still one of the best pieces of equipment I have bought for amateur radio work and I would not be without it.

Sam

3124. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 01:25:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <if2om19e60hgete2014sjbc0daahsung2p@4ax.com>
Source record: 68171

On Fri, 04 Nov 2005 15:45:39 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Richard Clark wrote:
>> . . .
>> Such an outcome stands to reason, the yagi cannot see all sources, the
>> dipole can. If I illuminated the yagi from each source in turn (all
>> others off) and correlated the response to the source's angle, the
>> composite would simply reveal the characteristic yagi response lobe
>> and the sum of those powers MUST fall below the total power available
>> to the dipole.
>>
>
>Yet if you provide the same power to the dipole and the Yagi and
>integrate the total field from each, the total field powers from both
>are the same.
>
>So is reciprocity invalid?

Hi Roy,

No, the presumption:
that this specific problem supports that reciprocity
is invalid.

Feel free to exhibit that the sum of powers, from identical remote
sources, located in a locus of points equidistant from a given point,
applied to
1. a dipole;
2. a yagi
demonstrate identically recovered power.

This is not the same as applying the same power to both and
integrating at a locus of points equidistant from a given point.

I could, of course, be wrong. I will investigate further if you have
any constructive suggestions such as Jim offered. I think it would be
instructive to be able to confirm it through available tools.

73's
Richard Clark, KB7QHC

3125. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 01:29:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rgvnm11cbv4s56ff8dmc9odmmjjd286qhn@4ax.com>
Source record: 68172

On Wed, 02 Nov 2005 22:27:45 -0800, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 28 Oct 2005 20:37:07 GMT, Ron <rmrippy@hotmail.com> wrote:
>
>>Assume an incoming rf signal has exactly the same strength in all 3
>>dimensions i.e., completely omnidirectional. Question: would an
>>antenna having gain capture any more signal power than a completely
>>omnidirectional antenna with no gain?
>
>Hi All,
>
>Well, it is time to discard the speculation and let modeling approach
>this for an answer that at least offers more than swag.
>
>First we strip away the sphere and solve this in two dimensions. To
>do that we simply construct a ring of sources surrounding the
>prospective antennas and let the winning design emerge.
>
> EZNEC+ ver. 4.0
>
>Dipole in Ring of Sources 11/2/2005 10:00:48 PM
>
> --------------- LOAD DATA ---------------
>
>Frequency = 70 MHz
>
>Load 1 Voltage = 4.783 V. at 23.52 deg.
> Current = 0.06643 A. at 23.52 deg.
> Impedance = 72 + J 0 ohms
> Power = 0.3177 watts
>
> Total applied power = 2000 watts
>
> Total load power = 0.3177 watts

Taking the determination above as the "standard" I then have
progressed to place an NBS yagi in three space about the center to
obtain its best result.

All such expressions (x,y,z) of the placement of the NBS yagi are with
respect to its "driven" element.

0,0,0 Power = 0.2091 watts
.5,0,0 Power = 0.2198 watts

1,0,0 Power = 0.1429 watts
1.5,0,0 Power = 0.1026 watts
2,0,0 Power = 0.1601 watts
2.5,0,0 Power = 0.2113 watts
3,0,0 Power = 0.1571 watts
3.5,0,0 Power = 0.06028 watts
4,0,0 Power = 0.04128 watts

So, within one quadrant, and over the space of roughly a wavelength, and at intervals of roughly one eighth wavelength, nothing emerges as being equal to the "standard" above. Except perhaps a hidden peak between 0,0,0 and .5,0,0. To investigate this:
.25,0,0 Power = 0.2286 watts
examining further:
.125,0,0 Power = 0.2219 watts
nope, examining further:
.375,0,0 Power = 0.2278 watts
nope, examining further:
.30,0,0 Power = 0.2291 watts
nope, examining further:
.35,0,0 Power = 0.2285 watts
nope, looks like the one before at .30,0,0 is the new sweet spot.

Now, to proceed to investigate the other quadrants to see if there is symmetry:
-3.5,0,0 Power = 0.03997 watts
0,3.5,0 Power = 0.005925 watts
0,-3.5,0 Power = 0.005859 watts

This last offers that on the Y axis there is a strong symmetry, and along the X axis there is a moderate symmetry. Now, in regard to both the X and the Y axis, there is a moderate symmetry. If we were to look at the fine data attempting to find the peak, we should notice that the "center" of the antenna lies between the "driven" element and its reflector. My having chosen the "driven" element as the nominal center was in error and my guess is that if I re-visited the same quadrant test above, with that new center at the sweet spot, then we would find very strong symmetry in all four quadrants. I will add that the Y axis data supports this due to its strong symmetry that is relatively immune from the choice of antenna center - at least at this scale.

Putting that aside, it is enough to suggest that barring an exquisitely positioned peak of rather a sharp rise, then the yagi exhibits a poorer response compared to a dipole of approx. 1.4dB.

Others are encouraged to investigate further to reclaim that missing dB or to put the horns to my error.

73's
Richard Clark, KB7QHC

3126. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 01:33:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qs2om1tqrmdqcdp1tomp8pqrihvf7no6qe@4ax.com>
Source record: 68173

On Fri, 04 Nov 2005 15:39:18 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>Another approach might be to integrate the
>results from a large number of point sources.

Hi Jim,

I just did that - literally.

73's
Richard Clark, KB7QHC

3127. Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 02:39:24 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <wXUaf.2180$te3.34609@typhoon.sonic.net>
Source record: 68174

Is there a URL where I can hear WWV time signals & announcments? (I realize there is latency that effect the accuracy but this kis unimportant for my purpose.)

Thank you,

Dave Pitz

3128. Re: How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 02:45:04 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <M_Uaf.43044$ty1.22897@bignews1.bellsouth.net>
Source record: 68175

Oh - of COURSE its a false story - just a good funny one.
We all know hams don't use buckets for their tools.
It was on some ftp site in the early 90's I think... everyone knew it was
just a joke - but you couldn't help but snicker as each paragraph
introduced a new wrinkle and a new woe to the unlucky ham.
It was written up like it was an explanation to his insurance company.

"David G. Nagel" <nagel@core.com> wrote in message
news:11mio1h6a2td18f@corp.supernews.com...
> Roy Lewallen wrote:
> > Hal Rosser wrote:
> >
> >> That reminds me of a story that used to circulate about the ham writing
a
> >> letter to the insurance company explaining how he incurred his injuries
> >> while working on his antenna tower.
> >> Something about: 300 lbs of tools in a bucket at the top of the
> >> tower and
> >> the bucket was on a rope that went through a pully at the top of the
> >> tower.
> >> he weighed only 150 lbs
> >> and as he accelerated upward, he forgot to turn loose of the rope
> >> met the bucket with his head half way up (and again with his ankles
> >> half way
> >> down because the bottom fell out of the bucket when it hit the
ground).
> >>
> >> Does anyone have a link to this original story ?
> >
> >
> > The original is almost certainly lost in the mists of time. My dad used
> > to tell me a version of that when I was a little kid. And he probably
> > heard it from his dad.
> >
> > Roy Lewallen, W7EL
> Mythbusters looked into this myth and ircc they found it not only false
> but impossible. I could be wrong though.
>
> Dave WD9BDZ
>
> BTW: Glad to see you back Roy...

3129. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 02:49:27 UTC
From: lu6etj <lu6etj@gmail.com>
Message-ID: <1131158967.328311.112150@g49g2000cwa.googlegroups.com>
Source record: 68026

Dear friends:

Reciprocity principle it is not violated in this situation but... which are the antennas?,

Let us feed a directional antenna that emits a hypothetical conical beam = 1 sr, pointed toward north pole of the inner surface of the sphere, for example. The radiant intensity or radiometric flow for unit of solid angle in the area illuminated by the antenna, will be 1 W/sr, ok?.

If that same portion of the imaginary sphere receive from outer space, an energy convergent flow on the same previously illuminated area for the beam with a density = 1 W/sr, naturally the directional antenna would be able to pick up it entirely, the principle of reciprocity is respected (not violated?)

Now we make the same thing with a isotropic radiator (same power = 1 W).
The energy density that crosses the sphere's surface going out, now is 1 W / (4*pi) sr, ok?.

If for that surface, comes from the outer side, energy with that same density and we pick up it with the same isotropic antenna we obtain one watt, truth again? (and the principle of reciprocity would be ok)

Now let us suppose that same energy density 1/(4*Pi) W, received from the whole surface of the sphere.

Let us reinstall the directional antenna instead of the isotropìc one.

How much energy it will be able to pick up 1 watt? or 1 / 4*Pi watt?

(could 1 W be picked up if the directive antenna only "see" an sphere's area corresponding to 1 sr?)

Perhaps, the problem would not be on the reciprocity principle but in the way of applying it to this example.

If instead of outlining the problem with antennas and radio signals, the friend had outlined it with another energy form, luminous, for example, and instead of antennas it had proposed light reflectors, would the answers be the same ones?

I believe that it is legítimate (rightfull?) to associate this problem with related phenomenon of radiant energy flow in general.

I also believe that the analogy between directional antennas and a luminous reflectors it is applicable, otherwise we would be to a step of violating the conservation of the energy principle... :>)

Puf...!, I hope I`ll be able to translate this...

73's of Miguel Ghezzi (LU 6ETJ)

El principio de reciprocidad se cumple en esta situación pero... ¿cuales son las antenas?,

Alimentemos una antena direccional que emita un haz conico hipotetico de 1 sr, apuntada hacia el polo norte de la superficie interior de la esfera, por ejemplo. La intensidad radiante o flujo radiometrico por unidad de ángulo solido en la zona iluminada por la antena, sera 1 W/sr, ok?.

Si esa misma porcion de la esfera imaginaria recibiera desde exterior un flujo de energia convergente sobre la misma area anteriormente iluminada por el haz con una densidad = 1 W/sr, naturalmente la antena direccional seria capaz de recogerla integramente, el principio de reciprocidad se cumple...

Ahora hacemos lo mismo con un radiador isotropico (la misma potencia, 1 W).
La densidad de energia que atraviesa la superficie interior de la esfera ahora es 1 W/(4*pi) sr, ok?. Si por esa superficie pasara, procedente del exterior, energía con esa misma densidad y la recogieramos con la misma antena isotropica volveriamos a obtener un watt ¿verdad? (y el principio de reciprocidad continuaria cumpliendose...)

Supongamos ahora esa misma densidad de energía 1/(4*Pi) W, recibida desde fuera por toda la superficie de la esfera.

Reinstalemos la antena direccional en lugar de la isotrópica,

Cuanta es la energía podra ella recoger 1 watt? or 1/ 4*Pi watt?

(¿acaso podria recoger 1 W si solo "puede ver" una zona de la esfera de 1 sr?)

Tal vez, el problema no estaria en el principio de reciprocidad sino en la manera de aplicarlo a este ejemplo.

Si en vez de plantear el problema con antenas y señales de radio, el amigo lo hubiera planteado con otra forma de energia, luminosa, por ejemplo, y en vez de antenas hubiera propuesto reflectores de luz, las respuestas serian las mismas?

Yo creo que es legitimo asociar este problema con los fénómenos relacionados con el flujo de energía radiante en general.

Tambien creo que la analogia entre una antena direccional y un reflector es aplicable, de lo contrario estariamos a un paso de violar

el principio de conservación de la energía... :>)

Puf...! espero poder traducir esto bien...

73's de Miguel Ghezzi (LU 6ETJ)

3130. Re: I Found It!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 02:51:10 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <u4Vaf.43045$ty1.10114@bignews1.bellsouth.net>
Source record: 68027

I like that version better.
Thanks!

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:436965C2.CD6E05BC@shaw.ca...
> Irv Finkleman wrote:
> >
> > Hal Rosser wrote:
> > >
> > > That reminds me of a story that used to circulate about the ham
writing a
> > > letter to the insurance company
> >
> > I've got a copy of it somewhere on this machine! I'll see if I can find
it!
>
> Here it is -- it's called sick note!
>
> --
>
> The Sick Note
>
> Dear Sir, I write this note to you to tell you of my plight
> For at the time of writing I am not a pretty sight
> My body is all black and blue, my face a deathly gray
> And I write this note to say why I am not at work today
>
> Whilst working on the 14th floor some bricks I had to clear
> To throw them down from such a height was not a good idea
> The foreman wasn't very pleased, the bloody awkward sod
> And said I'd have to cart them down the ladders in my hod
>
> Now clearing all those bricks by hand, it was so very slow
> So I hoisted up a barrel and secured the rope below
> But in my haste to do the job I was to blind to see
> That a barrel full of building bricks was heavier than me
>
> And so when I untied the rope the barrel flew like lead
> And clinging tightly to the rope I started up instead
> I shot up like a rocket till to my dismay I found
> That halfway up I met the bloody barrel coming down
>
> The barrel broke my shoulder as toward the ground it sped
> And when I reached the top I banged the pully with me head

> I hung on tightly, numb with shock from this almighty blow
> And the barrel spilled out half the bricks, 14 floors below
>
> Now when those bricks had fallen from the barrel to the floor
> I then outweighed the barrel and so started down once more
> Still clinging tightly to the rope, my body racked with pain
> When halfway down I met the bloody barrel once again
>
> The force of this collision, halfway up the office block
> Caused multiple abrasions and a nasty case of shock
> Still clinging tightly to the rope, I fell towards the ground
> And I landed on the broken bricks the barrel scattered round
>
> I lay there groaning on the ground, I thought I'd passed the worst
> But the barrel hit the pulleywheel, and then its bottom burst
> A shower of bricks rained down on me, I hadn't got a hope
> As I lay there bleeding on the ground, I let go the bloody rope
>
> The barrel was now free to fall and down it came once more
> And landed right across me as I lay upon the floor
> It broke three ribs and my left arm and I can only say
> That I hope you understand why I am not at work today!
>
>
> --
> ------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

3131. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 02:51:58 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9704BFFD6EFAFspectrumhogstarbandn@207.106.92.175>
Source record: 68028

:

> Is there a URL where I can hear WWV time signals & announcments? (I
> realize there is latency that effect the accuracy but this kis
> unimportant for my purpose.)
>

WWV is operated by the National Institute of Standards & Technology.

http://www.nist.gov/

Time signals are available at:

http://nist.time.gov/

Ed K7AAT

3132. AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 02:54:31 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <H9Vaf.2182$te3.34552@typhoon.sonic.net>
Source record: 68029

Why is it that I can received WCBS @ 880kc fairly well at night but WABC @ 770kc suffers from phase distortion like you wouldn't believe! (I'm about 175 miles from both transmitters.) They are both 50 kwatt stations. And why is it that both WBZ (Boston), WBT (Charlotte, NC), WJR (Detroit) and WBBM (Chicago) come in better than either of the New York City stations?

Dave P.

3133. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 02:58:53 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <NdVaf.2183$te3.34552@typhoon.sonic.net>
Source record: 68030

Ed:

Perfect!! Thanks!

Dave

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns9704BFFD6EFAFspectrumhogstarbandn@207.106.92.175...
> :
>
> > Is there a URL where I can hear WWV time signals & announcments? (I
> > realize there is latency that effect the accuracy but this kis
> > unimportant for my purpose.)
> >
>
> WWV is operated by the National Institute of Standards & Technology.
>
> http://www.nist.gov/
>
> Time signals are available at:
>
> http://nist.time.gov/
>
>
> Ed K7AAT

3134. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 03:07:58 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <n58om11u9srr55usntiah57u9bi9fdeg89@4ax.com>
Source record: 68031

On Fri, 04 Nov 2005 19:43:07 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF
>Analyzer.
>
>It sounds like a Swiss Army knife device and I should be able to send
>a lot of old equipment to Ebay. Does anyone have any comments to make
>on it? Good or bad?
>
>I have read the review in May 2005 QST and the manual available at
>their website.
>
>John Ferrell, W8CCW

My main complaint is if you punch buttons in the wrong sequence to
activate its 440 mhz capability, you can blow a diode, or so I've read
in the eHam reports. I haven't done it yet, but the it apparently can
happen. The capabilities on 440 mhz are quite limited, compared to
other frequencies, so you may want to consider the 259, unless you
need to measure swr on 440.

bob
k5qwg

3135. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 03:51:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkha8u$6r8$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68032

> Why is it that I can received WCBS @ 880kc fairly well at night but
WABC @
> 770kc suffers from phase distortion like you wouldn't believe! (I'm
about
> 175 miles from both transmitters.) They are both 50 kwatt stations.
And why
> is it that both WBZ (Boston), WBT (Charlotte, NC), WJR (Detroit) and
WBBM
> (Chicago) come in better than either of the New York City stations?
>
> Dave P.
==========

Different frequencies, different directions, different sun angles
(even when below the horizon), different ionospheric layer heights,
different skip distances, different ground-path terrains and therefore
different ground-path loss.

Reg.

3136. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 06:11:18 UTC
From: richardharrison@webtv.net
Message-ID: <6487-436C4D06-493@storefull-3252.bay.webtv.net>
Source record: 68033

Dave P. wrote:
"Why is it that I can receive WCBS @ 880 kc fairly well at night but WABC @ 770 kc suffers from phase distortion like you wouldn`t believe?"

I havn`t looked up the directional patterns of the two stations and don`t know your location. If you should happen to be at the edge of a null in the nighttime directional pattern of WABC, that would likely cause distorted fading. WABC may be clear-channel non-directional day and night for all I know. Not many of these remain in the U.S.A. now.

At 175 miles from both transmitters, you suffer interference between the ground wave and sky wave from either transmitter at night, at least occasionally. You probably have solid daytime reception from both stations, but at night, the signal may be stronger, though variable. The sky wave is susceptable to variations in the reflecting layers of the ionosphere at night. These are a function of frequency, reflecting carrier and sidebands differently at times. This can produce overmodulation at times in the received signal. Another factor is likely other stations on the same or adjacent channels which may fade in and out and cause variation from your automatic volume control action even when the interfering stations can not be readily identified. An Adcock, loop, or other directional antenna may produce a big improvement in reception of the desired signal.

Finally, WABC is owned by the Walt Disney company. Maybe you should expect Mickey Mouse performance.

Best regards, Richard Harrison, KB5WZI

3137. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 07:40:05 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <plZaf.2207$te3.34711@typhoon.sonic.net>
Source record: 68034

Richard,

Both you and Reg have given excellent answers and I thank you both.

By the way, you mention directional patterns and nulls. Is there any place I can find polar graphs of commercial broadcast station's antenna patterns?

Thanks,

Dave P.
==========

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:6487-436C4D06-493@storefull-3252.bay.webtv.net...
> Dave P. wrote:
> "Why is it that I can receive WCBS @ 880 kc fairly well at night but
> WABC @ 770 kc suffers from phase distortion like you wouldn`t believe?"
>
> I havn`t looked up the directional patterns of the two stations and
> don`t know your location. If you should happen to be at the edge of a
> null in the nighttime directional pattern of WABC, that would likely
> cause distorted fading. WABC may be clear-channel non-directional day
> and night for all I know. Not many of these remain in the U.S.A. now.
>
> At 175 miles from both transmitters, you suffer interference between the
> ground wave and sky wave from either transmitter at night, at least
> occasionally. You probably have solid daytime reception from both
> stations, but at night, the signal may be stronger, though variable. The
> sky wave is susceptable to variations in the reflecting layers of the
> ionosphere at night. These are a function of frequency, reflecting
> carrier and sidebands differently at times. This can produce
> overmodulation at times in the received signal. Another factor is likely
> other stations on the same or adjacent channels which may fade in and
> out and cause variation from your automatic volume control action even
> when the interfering stations can not be readily identified. An Adcock,
> loop, or other directional antenna may produce a big improvement in
> reception of the desired signal.
>
> Finally, WABC is owned by the Walt Disney company. Maybe you should
> expect Mickey Mouse performance.
>
> Best regards, Richard Harrison, KB5WZI
>

3138. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 09:37:44 UTC
From: ve1jh <ve1jh.remove@hotmail.com>
Message-ID: <I3%af.119253$Ph4.3658637@ursa-nb00s0.nbnet.nb.ca>
Source record: 68035

There are undoubtedly official sources from the FCC, etc.

The best hand-held guide I could recommend would be the National Radio Club's "Night Pattern Book," a fantastic resource for MW DXers and broadcast listeners. Basically it is a book of maps of North America for each domestic broadcast frequency, with dots representing transmitting locations, and the night time radiation pattern around each.

It's available from the following link:

http://www.nrcdxas.org/catalog/books/

The 5th edition is sold out, but the new 2005-06 edition is scheduled to be out soon.

Brent Taylor
VE1JH

Dave Pitzer wrote:
> Richard,
>
> Both you and Reg have given excellent answers and I thank you both.
>
> By the way, you mention directional patterns and nulls. Is there any place I
> can find polar graphs of commercial broadcast station's antenna patterns?
>
> Thanks,
>
> Dave P.

3139. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 11:07:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dki3pa$2v2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68036

> There are undoubtedly official sources from the FCC, etc.
>
> The best hand-held guide I could recommend would be the National
Radio
> Club's "Night Pattern Book," a fantastic resource for MW DXers and
> broadcast listeners. Basically it is a book of maps of North
America
> for each domestic broadcast frequency, with dots representing
> transmitting locations, and the night time radiation pattern around
each.
>
> It's available from the following link:
>
> http://www.nrcdxas.org/catalog/books/
>
> The 5th edition is sold out, but the new 2005-06 edition is
scheduled to
> be out soon.
>
> Brent Taylor
> VE1JH
>
>
> Dave Pitzer wrote:
> > Richard,
> >
> > Both you and Reg have given excellent answers and I thank you
both.
> >
> > By the way, you mention directional patterns and nulls. Is there
any place I
> > can find polar graphs of commercial broadcast station's antenna
patterns?
> >
> > Thanks,
> >
==========
Dave,

http://www.nrcdxas.org/catalog/books/
Sounds exactly what you are looking for but may take some time to
obtain.

In the meantime, the basic groundwave radiation patterns of mediumwave
broadcast antennas are either simple circles with the antenna at their

centres, or heart-shaped with the antenna at the null.

The first occurs when the antenna is a single vertical mast located near the centre of a large populated area.

The second occurs when the antenna consists of a pair of masts, which radiate a very broad heart-shaped beam, located on one side of the populated area to be covered.

Contour Maps of actual measured field strengths are useful when the basic groundwave patterns are distorted by the terrain, e.g., the existence of mountains, forests, rivers, built-up areas, high-rise cities, or seas, lakes or coastal regions.

Radio frequency Field Strengths are usually measured in terms of "millivolts per meter" or in decibels relative to one volt per meter.

Reg.

3140. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 13:38:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <bB2bf.12997$tV6.6309@newssvr27.news.prodigy.net>
Source record: 68037

Richard Clark wrote:
> Others are encouraged to investigate further to reclaim that missing
> dB or to put the horns to my error.

Of course, you have deviated considerably from the original
infinite number of coherent sources.
--
73, Cecil http://www.qsl.net/w5dxp

3141. AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 15:11:17 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_436cc494@fidonet.org>
Source record: 68038

"Dave Pitzer" bravely wrote to "All" (05 Nov 05 02:54:31)
--- on the heady topic of "AM Commercial radio reception"

DP> From: "Dave Pitzer" <dpitzer@sonic.net>
DP> Xref: core-easynews rec.radio.amateur.antenna:219693

DP> Why is it that I can received WCBS @ 880kc fairly well at night but
DP> WABC @ 770kc suffers from phase distortion like you wouldn't believe!
DP> (I'm about 175 miles from both transmitters.) They are both 50 kwatt
DP> stations. And why is it that both WBZ (Boston), WBT (Charlotte, NC),
DP> WJR (Detroit) and WBBM (Chicago) come in better than either of the New
DP> York City stations?
DP> Dave P.

Perhaps there are a few mountains inbetween you and NYC that cause
fringing effects?

A*s*i*m*o*v

... Strip-mining prevents forest fires.

3142. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 15:14:51 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <m%3bf.16853$i%.8697@fed1read07>
Source record: 68039

Whoa -- you sed times and ANNOUNCEMENTS the NIST site gives times only

If you want the announcements -- try an on-line web receiver - see URL:
http://ac6v.com/swl1.htm#WC

Also you can download a program that automatically updates your computer
clock upon bootup or command so it is accurate within fractions of
seconds -- so at anytime just look at your computer clock

See URL
http://ac6v.com/opaids.htm#CLOCK

--
CL -- I doubt, therefore I might be !

"Dave Pitzer" <dpitzer@sonic.net> wrote in message
news:NdVaf.2183$te3.34552@typhoon.sonic.net...
> Ed:
>
> Perfect!! Thanks!
>
> Dave
>
>
> "Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
> news:Xns9704BFFD6EFAFspectrumhogstarbandn@207.106.92.175...
>> :
>>
>> > Is there a URL where I can hear WWV time signals & announcments? (I
>> > realize there is latency that effect the accuracy but this kis
>> > unimportant for my purpose.)
>> >
>>
>> WWV is operated by the National Institute of Standards & Technology.
>>
>> http://www.nist.gov/
>>
>> Time signals are available at:
>>
>> http://nist.time.gov/
>>
>>
>> Ed K7AAT
>
>

3143. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 15:20:43 UTC
From: Ralph E Lindberg <n7bsn@callsign.net>
Message-ID: <n7bsn-DB183D.07204305112005@individual.net>
Source record: 68040

In article <1130962168.655457.263840@f14g2000cwb.googlegroups.com>,
"jmorash" <jmorash@gmail.com> wrote:

...
>
> thanks for any suggestions
> --Jim Morash

Jim, I've read through the responses you have had and allow me to inject some real world additions. You see I work for the Navy and we have built things a lot like what you are talking about and getting the antenna some height above the water is a requirement. It's actually rather easy to do. A simple fiberglass mast will do it, counter balancing the added weight is easy, since there needs to be enough mass below the surface to balance some sea state conditions

Here is a link to the Newport tracking system http://www.npt.nuwc.navy.mil/autec/barts01.htm This isn't the one we did, but if shows you some ideas

The system people I work with developed, use a different buoy system but works almost the same.

I did some experiments with antennas (900MHz) just as sea level (OK 3 feet above) and could still get a solid connection at about 1 mile, when I raised them to 6 ft I got a solid connection at 5 miles.

Other considerations.. the antenna mast whips a lot and makes recovery (in rough water) a little interesting. There is going to be a switch from the simple ground-plane antenna to a disc-cone due to the danger the ground radials pose.

We also found that putting a LED based flasher on the bouy a real good idea (to see it in low light conditions)

--

Personal e-mail is the n7bsn but at amsat.org
This posting address is a spam-trap and seldom read
RV and Camping FAQ can be found at
http://www.ralphandellen.us/rv

3144. Re: Question on shooting a line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 16:26:22 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <31303030383738354436CDD2E91@zetnet.co.uk>
Source record: 68075

Why not just use the rod and reel? Admittedly some can throw farther
than they can cast.

I doubt there are very many people who can either throw, or cast a
line, at 70 feet, over a particular branch of a rather densely packed
conifer tree. I can do it, however, with a slingshot. A bow or
crossbow would be even better, I'll admit.

Which is why I recommend using my described method, as you can "sight"
up your target. Easy really.
Dave. d:-))
--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

3145. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 16:37:46 UTC
From: richardharrison@webtv.net
Message-ID: <23747-436CDFDA-440@storefull-3257.bay.webtv.net>
Source record: 68041

Dave P. wrote:
"Is there any place I can find polar graphs of commercial broadcast stations?"

I have an old book, "Map Book, 540 kc to 1600 kc" published by "Cleveland Insritute of Radio Electronics". In it, WABC is 50 KW non-directional day and night. It shares 770 kc with KOB Albuquerque, 50 KW day and 25 KW night. Also, KUOM Minneapolis and WCAL Nortjhfield are both 5 KW and share the frequency on some schedule between themselves. WNEW St. Louis is on the frequency daytimes only, as is KWA Seattle, 1 KW. XEHB in San Francisco de Oro, Mexico is a 500 watt daytimer on the frequency, as are XELM, 150 watts at Lagos de Morens and XEDI at Queretaro, 1 KW. There is also CMDC, 1 KW at night when it could trouble you in Holquin, Cuba. So, at night there is possible same-channel interderence from New Mexico and Cuba. On 760 kc, you have WJR in Detroit 50 KW non-directional at night and on 780 kc, you have WBBM in Chicago 50 KW nondirectional at night. These non-directional 50KW adjacent channel stations may exercise your AVC.

On 880 kc, WCBS has no same-channel night rivals but WLS (World`s Largest Store, Sears in Chicago) on 890 kc, onetime home of "The National Barn Dance", could work your AVC. Also, WWL in New Orleans occupies 870 kc with 50 KW.
Good preselection will rid you of adjacent channel interference. I lived in Portugal for years and listened to WCBS nightly. I would rock my tuning from 880 to 870 for WWL during fades for my version of frequency diversity. Both stations carried the same CBS programs. My antenna was a Beverage aimed at New York. The receiver was a Hammarlund SP-600 which had plenty of preselection to avoid adjacent channels. Ed Murrow came in very well.

Best regards, Richard Harrison, KB5WZI

3146. just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 17:29:50 UTC
From: ml <m@di.net>
Message-ID: <m-F131DC.12290205112005@news.verizon.net>
Source record: 68042

hi

i might have a chance to put up a real antenna on my roof and ponder
which type is best"" as i can only do one

my choices are either a multi ele beam or a verticle

looking for what is 'best' overall for all type not just dx

I operate all modes and all bands 160-10

my roof is about 150' off the ground my antenna would be about 30ft off
the roof flat surface

i was realizing that no one antenna is 'perfect' but wondered
generically which would be best overall if you could only get one?

thanks

3147. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 18:15:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkiss2gkv1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68043

"Cecil Moore" wrote
> Of course, you have deviated considerably from the original
> infinite number of coherent sources.

==========

You guys sure know how to enjoy yourselves trying to analyse
hypothetical situations.

Without any loss in precision, just imagine an isotropic receiver
surrounded by 6 equal intensity beams focussed upon it. Forget all
about an infinite number of radiators.

Or, better still, forget all about the original exceedingly
ill-defined question by a leg-puller. You have been trolled. You
should be ashamed of yourselves for being taken in by such a question.

By the way, the subject of "antenna gains" is amongst the most
confusing of all old-wives' tales. It's worse than so-called VSWR
measurements on non-existent transmission lines. Or from which ends,
or the middle bit, of a dipole does the radiation occur.

Reg.

3148. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 18:27:30 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <mQ6bf.9145$BZ5.8914@newssvr13.news.prodigy.com>
Source record: 68044

Also, if you want to sync your computer to a time standard,
do a search on "Dimension 4" when set up, will adjust your
computer clock to the reference (and there are several, along
with NIST) Jim NN7k

Dave Pitzer wrote:
> Ed:
>
> Perfect!! Thanks!
>
> Dave
>
>
> "Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
> news:Xns9704BFFD6EFAFspectrumhogstarbandn@207.106.92.175...
>
>>:
>>
>>
>>>Is there a URL where I can hear WWV time signals & announcments? (I
>>>realize there is latency that effect the accuracy but this kis
>>>unimportant for my purpose.)
>>>
>>
>> WWV is operated by the National Institute of Standards & Technology.
>>
>> http://www.nist.gov/
>>
>> Time signals are available at:
>>
>> http://nist.time.gov/
>>
>>
>> Ed K7AAT
>
>
>

3149. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 18:36:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b7upm1p46lr7krlj10537l0cheerd4eeim@4ax.com>
Source record: 68045

On Sat, 5 Nov 2005 18:15:30 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>"Cecil Moore" wrote
>> Of course, you have deviated considerably from the original
>> infinite number of coherent sources.
>You guys sure know how to enjoy yourselves trying to analyse
>hypothetical situations.

So now there are at least two of you who can't find the "missing"
power. Kelvinator is winding up a pitch to bounce another piece of
chalk off your noggin, Reg. Fumbling what-ifs and nary a number from
anyone.
"WORK?!?" [with apologies to Maynard G. (for Walter) Krebs, rip].

3150. Re: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 18:59:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkivea$dn2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68046

The best, all round, antenna is undoubtably an approx quarter-wave vertical antenna, or an Inverted-L, on the lowest frequency of interest, with a modest set of a few buried ground radials. An antenna tuner is needed for higher frequencies..

The next best. almost as good, is an approx half-wave dipole at the lowest frequency of interest, fed with openwire line, where no ground system is needed. An antenna tuner is still needed for higher frequencies.

Reg.

3151. Re: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 19:38:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CS7bf.13731$Zv5.3691@newssvr25.news.prodigy.net>
Source record: 68047

ml wrote:
> i was realizing that no one antenna is 'perfect' but wondered
> generically which would be best overall if you could only get one?

I would suggest a log-periodic beam with a GMC 455ci engine to
rotate it. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3152. Re: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 19:39:13 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <tf2qm11bo2pgcprr2r11u0ovkhtuqhcmkl@4ax.com>
Source record: 68048

On Sat, 05 Nov 2005 17:29:50 GMT, ml <m@di.net> wrote:

>hi
>
>
>i might have a chance to put up a real antenna on my roof and ponder
>which type is best"" as i can only do one
>
>my choices are either a multi ele beam or a verticle
>
>looking for what is 'best' overall for all type not just dx
>
>I operate all modes and all bands 160-10

If they'll let you put a 160-10m beam on the building, I'd say go for
it :-)

bob
k5qwg

>
>my roof is about 150' off the ground my antenna would be about 30ft off
>the roof flat surface
>
>
>i was realizing that no one antenna is 'perfect' but wondered
>generically which would be best overall if you could only get one?
>
>
>thanks

3153. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 19:56:47 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <of3qm1dee4mrpqvciouul2vnkvct26crbm@4ax.com>
Source record: 68049

On Sat, 05 Nov 2005 18:27:30 GMT, Jim - NN7K
<nn7kexk7zfg@NOSPAMsbcglobal.net> wrote:

>Also, if you want to sync your computer to a time standard,
>do a search on "Dimension 4" when set up, will adjust your
>computer clock to the reference (and there are several, along
>with NIST) Jim NN7k

D4 works well, but you don't necessarily need to add software, some
operating systems support sntp natively... eg Win 2K and XP. You just
have to work out how to activate it.

Doesn't everyone syncronise their computer clock nowadays?

Owen
--

3154. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 20:22:19 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <11mq53r42dgl488@corp.supernews.com>
Source record: 68050

On 2005-11-05, Dave Pitzer <dpitzer@sonic.net> wrote:
> Why is it that I can received WCBS @ 880kc fairly well at night but WABC @
> 770kc suffers from phase distortion like you wouldn't believe! (I'm about
> 175 miles from both transmitters.) They are both 50 kwatt stations. And why
> is it that both WBZ (Boston), WBT (Charlotte, NC), WJR (Detroit) and WBBM
> (Chicago) come in better than either of the New York City stations?
>
> Dave P.
>
>

WBZ in Boston is a clear channel station. I don't think they
have any pattern restrictions; they run 50kw 24/7.

3155. Re: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 20:50:07 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <0d6qm1923s8hcuva80it3r39uoer7ovm49@4ax.com>
Source record: 68051

I really like my Cushcraft A3S with the 40 meter option.
However, it does not cover the "new bands" or 80/160. If you were to
mount it 20 feet or more above the roof it would probably work well. I
am in the throws of trying to figure out what to do about 80 & 160
myself. Any way you do it you will have to trade physical size for
band width.

Now would be a good time to start considering what you are going to do
about lightning protection though.

John Ferrell, W8CCW

On Sat, 05 Nov 2005 17:29:50 GMT, ml <m@di.net> wrote:

>hi
>
>
>i might have a chance to put up a real antenna on my roof and ponder
>which type is best"" as i can only do one
>
>my choices are either a multi ele beam or a verticle
>
>looking for what is 'best' overall for all type not just dx
>
>I operate all modes and all bands 160-10
>
>my roof is about 150' off the ground my antenna would be about 30ft off
>the roof flat surface
>
>
>i was realizing that no one antenna is 'perfect' but wondered
>generically which would be best overall if you could only get one?
>
>
>thanks

3156. tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 21:11:00 UTC
From: ml <m@di.net>
Message-ID: <m-20F45F.16104505112005@news.verizon.net>
Source record: 68052

In article <dkivea$dn2$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>,
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> The best, all round, antenna is undoubtably an approx quarter-wave
> vertical antenna, or an Inverted-L, on the lowest frequency of
> interest, with a modest set of a few buried ground radials. An
> antenna tuner is needed for higher frequencies..
>
> The next best. almost as good, is an approx half-wave dipole at the
> lowest frequency of interest, fed with openwire line, where no ground
> system is needed. An antenna tuner is still needed for higher
> frequencies.
> ----
> Reg.

thanks to all that replied seems a good verticle is going to win, and
avoids the rotor complexity

i already have a dipole works pretty good but i have nothing to
compare it to so a verticle might afford me some interesting
comparisons /experimenting

3157. Re: tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 21:31:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4x9bf.24577$6e1.6918@newssvr14.news.prodigy.com>
Source record: 68053

ml wrote:
> i already have a dipole works pretty good but i have nothing to
> compare it to so a verticle might afford me some interesting
> comparisons /experimenting

You will be disappointed in two directions and amazed in the
other two directions. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3158. Re: tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-05 23:54:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkjgn3$6og$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68054

"Cecil Moore" wrote
> You will be disappointed in two directions and amazed in the
> other two directions. :-)
==========

Cec, with the verticals and inverted-L's and dipoles I have ever erected, I have never noticed much difference between one direction and another except when my house or the neighbour's house got in the way. And most of the difference was just my imagination.

Simple antennas, in the average amateur's environment, are effectively omni-directional in all planes without any nulls. I have never had any silly objections to radiation from the feedline, although I have never been certain that I ever had any.

If I ever made made any propagation calculations I always treated my antennas as being isotropes. When the calculating uncertainty is plus or minus 10 dB who cares anyway? I am the last person to suffer from delusions of accuracy. Yet I am a firm believer in Kelvin.

I once made a balun. It was in the feedline for 24 hours. It didn't make a scrap of difference to anything except weight. I still have it. The workmanship and neatness of the windings around the ferrite ring was too good to throw away.

I've just noticed this message is in terms of a history. I am 80 this month.

Reg, G4FGQ.

3159. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 00:42:09 UTC
From: Earl Needham <munged@3lefties.com>
Message-ID: <11mqkb184dnnfa2@corp.supernews.com>
Source record: 68055

"Owen Duffy" <owen@no.where> wrote in message
news:of3qm1dee4mrpqvciouul2vnkvct26crbm@4ax.com...
> On Sat, 05 Nov 2005 18:27:30 GMT, Jim - NN7K
> <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote:
>
> >Also, if you want to sync your computer to a time standard,
> >do a search on "Dimension 4" when set up, will adjust your
> >computer clock to the reference (and there are several, along
> >with NIST) Jim NN7k
>
> D4 works well, but you don't necessarily need to add software, some
> operating systems support sntp natively... eg Win 2K and XP. You just
> have to work out how to activate it.

I must be the only one still using Windows 2000 Pro at my home. It
works well, so I'm in no hurry to "upgrade" to anything else.

But HOW do you make W2K support sntp? I've never found that option, and
I use an external program to make it work.

Thanks,
Earl
--
Earl Needham
Clovis, New Mexico USA

3160. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 00:47:53 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <436d52c4$0$3760$39cecf19@news.twtelecom.net>
Source record: 68056

Richard Harrison wrote:

> very well.
>
> Best regards, Richard Harrison, KB5WZI
>

Slight change of subject, WCCO 830 and a couple others I've noticed, now have a tremendous amount of digital sounding crap around them that completely obscures stations such as KOA. Is this the new digital radio wonder weapon that I'm supposed to love?

tom
K0TAR

3161. Lunch Tomorrow

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 00:48:47 UTC
From: Henry <wa0goz@arrl.net>
Message-ID: <dkjjsu031g4@enews3.newsguy.com>
Source record: 68057

Be here before 12:00 for lunch.

CU then.

Love

Dad

3162. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 01:18:18 UTC
From: Ron <rmrippy@hotmail.com>
Message-ID: <uRcbf.1795$4C5.514847@twister.southeast.rr.com>
Source record: 68058

> Or, better still, forget all about the original exceedingly
> ill-defined question by a leg-puller. You have been trolled. You
> should be ashamed of yourselves for being taken in by such a question.

Hello Reg,

I wrote the original question. It may be dumb but it was not
facetious. I am not a troll.

Happy birthday,

Ron, W4TQT

3163. Re: Lunch Tomorrow

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 01:37:28 UTC
From: Dave <noone@nowhere.com>
Message-ID: <zcmdndTv3fX5w_DenZ2dnUVZ_tadnZ2d@crocker.com>
Source record: 68059

"Henry" <wa0goz@arrl.net> wrote in message
news:dkjjsu031g4@enews3.newsguy.com...
> Be here before 12:00 for lunch.
>
> CU then.
>
> Love
>
> Dad

what you having??

3164. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 01:51:19 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <17nqm1dn6askmh729vdghed48qn724vsot@4ax.com>
Source record: 68060

On Sat, 5 Nov 2005 17:42:09 -0700, "Earl Needham"
<munged@3lefties.com> wrote:

> But HOW do you make W2K support sntp? I've never found that option, and
>I use an external program to make it work.

You configure and start the Time32 service. These articles should be
helpful:

http://support.microsoft.com/support/kb/articles/Q246/1/45.ASP

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnw2kmag01/html/TimeWin2K
.asp

http://support.microsoft.com/kb/223184/

If after you have done the net time /setsntp thing and started the
service and it still doesn't work, it is because some registry
settings are not correct. I have a .reg file with them in, but not
with me. See the second article. IIRC XP is just as unornery.

For sntp servers, have a browse to pool.ntp.org.

Owen
--

3165. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 02:12:08 UTC
From: Crazy George <munschNO@SPAMattglobal.net>
Message-ID: <436d6a27_3@news1.prserv.net>
Source record: 68061

<snip>
> In the meantime, the basic groundwave radiation patterns of mediumwave
> broadcast antennas are either simple circles with the antenna at their
> centres, or heart-shaped with the antenna at the null.
>
> The first occurs when the antenna is a single vertical mast located
> near the centre of a large populated area.
>
> The second occurs when the antenna consists of a pair of masts, which
> radiate a very broad heart-shaped beam, located on one side of the
> populated area to be covered.
<snip>
> ----
> Reg.
>
>

Reg:

I'm afraid you're way behind the practice on this one. In the US, there are many 4, 5 and 6 tower arrays providing as many nulls to protect co-channel stations. The UK got off easy with nationalized broadcasting, where the frequency and location was dictated by the government, and none of that nasty capitalism interfered. Here, the commercial interests are still fighting it out. Check and see if the KLIF website shows their pattern from a linear array of 5 towers just outside Dallas.

--
Crazy George
W5VPQ
My real address is my ham call <at>ARRL.NET The ATTGlobal is a SPAM trap.

3166. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 02:18:48 UTC
From: Crazy George <munschNO@SPAMattglobal.net>
Message-ID: <436d6ba6_1@news1.prserv.net>
Source record: 68062

"Tom Ring" <news0002@taring.org> wrote in message
news:436d52c4$0$3760$39cecf19@news.twtelecom.net...
> Richard Harrison wrote:
>
> > very well.
> >
> > Best regards, Richard Harrison, KB5WZI
> >
>
> Slight change of subject, WCCO 830 and a couple others I've noticed, now
> have a tremendous amount of digital sounding crap around them that
> completely obscures stations such as KOA. Is this the new digital radio
> wonder weapon that I'm supposed to love?
>
> tom
> K0TAR
>

You bet!!!!

--
Crazy George
W5VPQ
My real address is my ham call <at>ARRL.NET The ATTGlobal is a SPAM trap.

3167. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 02:33:07 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9705BCCD2E7FDspectrumhogstarbandn@207.106.93.175>
Source record: 68063

> But HOW do you make W2K support sntp? I've never found that
> option, and
> I use an external program to make it work.
>
> Thanks,
> Earl

Interesting info at:

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnw2kmag01/html/TimeWin2K.asp

Ed K7AAT

3168. My antennas are on QRZ's cover

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 03:14:53 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <436d752d$0$32205$39cecf19@news.twtelecom.net>
Source record: 68064

I wouldn't have voted for them, but my friend, Geoff KC0FXY, did take a nice shot. And I guess QRZ thought so too.

https://secure.qrz.com/store/qrz_cd.html

So my 6 meter beams are on the 2005-2006 cover.

To explain the shot, the lower beam is a fixed 3 element which is meant to cover the Minneapolis/St Paul metro area.

The 4 over 4 above it is rotarable.

tom
K0TAR

3169. Re: My antennas are on QRZ's cover

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 03:43:57 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <436d7c07$0$3756$39cecf19@news.twtelecom.net>
Source record: 68065

Tom Ring wrote:

> The 4 over 4 above it is rotarable.

And I don't type well.

3170. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 04:01:28 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <sefbf.2299$te3.37284@typhoon.sonic.net>
Source record: 68066

Thanks to you all for your excellent information

DP

"Dave Pitzer" <dpitzer@sonic.net> wrote in message
news:H9Vaf.2182$te3.34552@typhoon.sonic.net...
> Why is it that I can received WCBS @ 880kc fairly well at night but WABC @
> 770kc suffers from phase distortion like you wouldn't believe! (I'm about
> 175 miles from both transmitters.) They are both 50 kwatt stations. And
why
> is it that both WBZ (Boston), WBT (Charlotte, NC), WJR (Detroit) and WBBM
> (Chicago) come in better than either of the New York City stations?
>
> Dave P.
>
>

3171. Re: Lunch Tomorrow

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 05:07:34 UTC
From: Henry <wa0goz@arrl.net>
Message-ID: <dkk32401dbi@enews4.newsguy.com>
Source record: 68067

Dave wrote:
> "Henry" <wa0goz@arrl.net> wrote in message
> news:dkjjsu031g4@enews3.newsguy.com...
>
>>Be here before 12:00 for lunch.
>>
>>CU then.
>>
>>Love
>>
>>Dad
>
>
> what you having??
>
>
ROTFL I was in this newsgroup when I thought I was in my email program and I sent the message to my son. I called him later and he said he didn't get the email. I'll try to be more carefull, but it sure is funny to me. :-)

Henry

3172. Re: Lunch Tomorrow

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 05:35:54 UTC
From: Stananger <********@***.***>
Message-ID: <_Cgbf.10253$Ny6.9301@trnddc06>
Source record: 68068

Henry wrote:

> Dave wrote:
>> "Henry" <wa0goz@arrl.net> wrote in message
>> news:dkjjsu031g4@enews3.newsguy.com...
>>
>>>Be here before 12:00 for lunch.
>>>
>>>CU then.
>>>
>>>Love
>>>
>>>Dad
>>
>>
>> what you having??
>>
>>
> ROTFL I was in this newsgroup when I thought I was in my email
> program and I sent the message to my son. I called him later and he
> said he didn't get the email. I'll try to be more carefull, but it
> sure is funny to me. :-)
>
> Henry

So whats for lunch? you still didnt tell us!

3173. Re: Lunch Tomorrow

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 07:49:13 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11mrdc11nfj4t56@corp.supernews.com>
Source record: 68069

Stananger wrote:
> Henry wrote:
>
>
>>Dave wrote:
>>
>>>"Henry" <wa0goz@arrl.net> wrote in message
>>>news:dkjjsu031g4@enews3.newsguy.com...
>>>
>>>
>>>>Be here before 12:00 for lunch.
>>>>
>>>>CU then.
>>>>
>>>>Love
>>>>
>>>>Dad
>>>
>>>
>>>what you having??
>>>
>>>
>>
>>ROTFL I was in this newsgroup when I thought I was in my email
>>program and I sent the message to my son. I called him later and he
>>said he didn't get the email. I'll try to be more carefull, but it
>>sure is funny to me. :-)
>>
>>Henry
>
>
> So whats for lunch? you still didnt tell us!
And where do we meet?

3174. rf induced fire in the trees?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 10:02:10 UTC
From: jimg <jamesgor@verizon.net>
Message-ID: <6nkrm1p8pr0ofhacr5nssjtbsfl06776d4@4ax.com>
Source record: 68070

hi. i'm about to be a new ham. i hv only 1 chance for an antenna for 80m (or 40, even 20). there's a 120' oak tree in the yard with 70' clear on either side. so i thought a ladder-line center-fed inverted vee dipole (63' per leg, 14ga teflon insulated stranded) would be my best bet...so at 100W, even 600W ...am i going to set the tree on fire? any ideas on how to keep bad things from happening? thank you very much?

jimg
jimg
Oregon
USA

3175. birthday/radition: tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 12:18:24 UTC
From: ml <m@di.net>
Message-ID: <m-2E099B.07182006112005@news.verizon.net>
Source record: 68071

happy birthday if you were around nyc i'd buy you a cake

so if i understood your below, your saying you had a dipole in some
direction lets say n s and your average signals came in same as your
E W dipole?

or say if i had a nice multielement optibeam on 20m and i heard a week
signal started to turn the beam all around findng max signal East

if i switched to my verticle you'd hypothise it'd come in about the same

further if your below was true then wouldn't turning the beam mean my
signal would always be about the same?

or was it just a dipole vs verticle comparison that i spazed out on ?

In article <dkjgn3$6og$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>,
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> "Cecil Moore" wrote
> > You will be disappointed in two directions and amazed in the
> > other two directions. :-)
> ==========
>
> Cec, with the verticals and inverted-L's and dipoles I have ever
> erected, I have never noticed much difference between one direction
> and another except when my house or the neighbour's house got in the
> way. And most of the difference was just my imagination.
>
> Simple antennas, in the average amateur's environment, are effectively
> omni-directional in all planes without any nulls. I have never had any
> silly objections to radiation from the feedline, although I have never
> been certain that I ever had any.
>
> If I ever made made any propagation calculations I always treated my
> antennas as being isotropes. When the calculating uncertainty is plus
> or minus 10 dB who cares anyway? I am the last person to suffer from
> delusions of accuracy. Yet I am a firm believer in Kelvin.
>
> I once made a balun. It was in the feedline for 24 hours. It didn't
> make a scrap of difference to anything except weight. I still have
> it. The workmanship and neatness of the windings around the ferrite
> ring was too good to throw away.
>
> I've just noticed this message is in terms of a history. I am 80 this
> month.

> ----
> Reg, G4FGQ.

3176. Re: tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 13:28:49 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <lynbf.10019$D13.7377@newssvr11.news.prodigy.com>
Source record: 68072

Reg Edwards wrote:
> Simple antennas, in the average amateur's environment, are effectively
> omni-directional in all planes without any nulls.

My rotatable 33 ft. dipole at 50 ft. is a pretty simple antenna, Reg.
It is not omni-directional. Rotating it can make about two S-units
difference on 20m and up to about 4 S-units difference on 10m.

> I've just noticed this message is in terms of a history. I am 80 this
> month.

I hear Scorpio is the sexiest sign in the Zodiac. Happy Birthday, Reg,
and many happy returns. My 95 year old aunt, a mile away in the nursing
home, says you are just a young sprout.
--
73, Cecil http://www.qsl.net/w5dxp

3177. Re: Receiving WWV signal on computer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 14:38:55 UTC
From: Earl Needham <munged@3lefties.com>
Message-ID: <11ms5c0299gjh37@corp.supernews.com>
Source record: 68073

"Owen Duffy" <owen@no.where> wrote in message
news:17nqm1dn6askmh729vdghed48qn724vsot@4ax.com...
> On Sat, 5 Nov 2005 17:42:09 -0700, "Earl Needham"
> <munged@3lefties.com> wrote:
>
> > But HOW do you make W2K support sntp? I've never found that option,
and
> >I use an external program to make it work.
>
> You configure and start the Time32 service. These articles should be
> helpful:
>
> http://support.microsoft.com/support/kb/articles/Q246/1/45.ASP
>
>
http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnw2kmag01/html/TimeWin2K
.asp
>
> http://support.microsoft.com/kb/223184/

Wow, I didn't know you could do that! This is handy indeed!

7 3
Earl
KD5XB
--
Earl Needham
Clovis, New Mexico USA

3178. Re: tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 15:01:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkl5rh$4mt$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68074

"Cecil wrote
>
> My rotatable 33 ft. dipole at 50 ft. is a pretty simple antenna,
Reg.
> It is not omni-directional. Rotating it can make about two S-units
> difference on 20m and up to about 4 S-units difference on 10m.

==========

Cec, in the broad expanses of Texas no doubt it has a similar
performance at all other frequencies too. But I suggest a 33-feet
rotatable dipole does not make you an average amateur.

Thanks for birthday greetings all the way from Texas. The World sure
is getting to be a small place! The Internet appears to have shrunk
it more than radio ever did.

Yours, Reg, G4FGQ

3179. Re: tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 15:24:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xepbf.13628$dO2.5976@newssvr29.news.prodigy.net>
Source record: 67876

Reg Edwards wrote:
> Cec, in the broad expanses of Texas no doubt it has a similar
> performance at all other frequencies too. But I suggest a 33-feet
> rotatable dipole does not make you an average amateur.

Point is that if it wasn't rotatable, it would make me average,
and I would be missing out.
--
73, Cecil http://www.qsl.net/w5dxp

3180. Re: rf induced fire in the trees?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 15:42:49 UTC
From: w4sef@bellsouth.net
Message-ID: <436e2448.565203@newsgroups.bellsouth.net>
Source record: 67877

VERY unlikely you will set the tree on fire...you would have to be
running several kw at the very least to even begin to start a fire!

Steve

On Sun, 06 Nov 2005 10:02:10 GMT, jimg <jamesgor@verizon.net> wrote:

>hi. i'm about to be a new ham. i hv only 1 chance for an antenna for
>80m (or 40, even 20). there's a 120' oak tree in the yard with 70'
>clear on either side. so i thought a ladder-line center-fed inverted
>vee dipole (63' per leg, 14ga teflon insulated stranded) would be my
>best bet...so at 100W, even 600W ...am i going to set the tree on
>fire? any ideas on how to keep bad things from happening? thank you
>very much?
>
>jimg
>jimg
>Oregon
>USA

3181. Re: Selecting a rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 16:14:34 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <DcGdnYerD7EctvPeRVn-ig@comcast.com>
Source record: 67878

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11mn6bmit0a6e2d@corp.supernews.com...
>I have never purchased a rotator before and I have one question.
>
> You look at the specs for a given rotator, and it says that it will handle
> say up to 10 square feet wind load area. You then look at the antenna
> specs, and if the Wind Surface Area for it is less than 10 square feet,
> then you have a match? Is this correct?
>
> Thanks for the help.
>
> Rod KI7CQ
>
>
Keep in mind that the 10 sq. foot rating is for a mast with a thrust
bearing, or for an antenna installed a few inches above the rotor. Put a 10
foot mast on top of the rotor (w/o thrust bearing), and the rating becomes
something like 1 - 2 sq. ft. Check out the Yaesu rotors. At the 10 sq. ft.
level, the price is not much more than 1/2 that of the Hygain.

Tam/WB2TT

3182. Re: tnx: just one vert or horz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 16:40:13 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <436E31F0.6266135E@shaw.ca>
Source record: 67879

Cecil Moore wrote:
>
> Reg Edwards wrote:

> My 95 year old aunt, a mile away in the nursing
> home, says you are just a young sprout.
> --
> 73, Cecil http://www.qsl.net/w5dxp

My Mom, turning 90 come January, has a bridge partner who is 101! I
accused him of robbing the cradle! :-)
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3183. Re: rf induced fire in the trees?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 16:41:38 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <436E3244.8650B249@shaw.ca>
Source record: 67880

Steven Fritts wrote:
>
> VERY unlikely you will set the tree on fire...you would have to be
> running several kw at the very least to even begin to start a fire!
>
> Steve
>
> On Sun, 06 Nov 2005 10:02:10 GMT, jimg <jamesgor@verizon.net> wrote:
>
> >hi. i'm about to be a new ham. i hv only 1 chance for an antenna for
> >80m (or 40, even 20). there's a 120' oak tree in the yard with 70'
> >clear on either side. so i thought a ladder-line center-fed inverted
> >vee dipole (63' per leg, 14ga teflon insulated stranded) would be my
> >best bet...so at 100W, even 600W ...am i going to set the tree on
> >fire? any ideas on how to keep bad things from happening? thank you
> >very much?
> >
> >jimg
> >jimg
> >Oregon
> >USA

As long as the outer ends of the Vee are out of the branches you will be OK.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3184. Re: rf induced fire in the trees?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 17:38:26 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97066228976BDspectrumhogstarbandn@207.106.92.175>
Source record: 67881

> hi. i'm about to be a new ham. i hv only 1 chance for an antenna for
> 80m (or 40, even 20). there's a 120' oak tree in the yard with 70'
> clear on either side. so i thought a ladder-line center-fed inverted
> vee dipole (63' per leg, 14ga teflon insulated stranded) would be my
> best bet...so at 100W, even 600W ...am i going to set the tree on
> fire? any ideas on how to keep bad things from happening? thank you
> very much?
>

My own opinion, I do not like Oak trees for antenna work.... when the leaves are on, they are difficult, to say the least. However, with winter here, I'm sure you will be able to configure the apex of your inverted V OK in that big tree.

Have you actually considered the amount of real estate you need for an Invertet V for 75M ? With a center height of only 40 feet, your 1/4 wave legs will extend out barely over about 47 feet each side of center. You may be able to do what you are thinking with a simple center mast instead of using the Oak tree. It certainly would make working on your antenna and changing things a bit easier.

Good luck, either case.

Ed K7AAT

in Oregon, too.

3185. Re: rf induced fire in the trees?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 18:38:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <P4sbf.13872$Zv5.11223@newssvr25.news.prodigy.net>
Source record: 67882

Irv Finkleman wrote:
> As long as the outer ends of the Vee are out of the branches you will be OK.

That works for 80m but what about 40m where the voltage maximum
point is at the feedpoint?
--
73, Cecil http://www.qsl.net/w5dxp

3186. Re: rf induced fire in the trees?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 18:41:32 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <bbjsm1dcqrropjd9tpjn8mlf5rs398lc95@4ax.com>
Source record: 67883

On Sun, 06 Nov 2005 10:02:10 GMT, jimg <jamesgor@verizon.net> wrote:

>hi. i'm about to be a new ham. i hv only 1 chance for an antenna for
>80m (or 40, even 20). there's a 120' oak tree in the yard with 70'
>clear on either side. so i thought a ladder-line center-fed inverted
>vee dipole (63' per leg, 14ga teflon insulated stranded) would be my
>best bet...so at 100W, even 600W ...am i going to set the tree on
>fire? any ideas on how to keep bad things from happening? thank you
>very much?
>
>jimg
>jimg
>Oregon
>USA

I have an 80 meter dipole running through three trees; I use a
standard tree trimmer (reach about 20'-25') to keep the wires pretty
much in the clear.

bob
k5qwg

3187. 135' flattop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 20:43:14 UTC
From: garigue <garigue@comcast.net>
Message-ID: <rI-dnSjFqYI-9_PeRVn-vA@comcast.com>
Source record: 67884

Hello all ....I have seen some where a list of what length of feedline to avoid resonance wise..... Does anyone know the site ?? I will be using 450 twin for the antenna .....never used open wire feed in my 40 years in this endeavor. Thanks in advance ......

KI3R Tom Popovic Belle Vernon PA ......

3188. Re: 135' flattop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 21:07:14 UTC
From: Dan Richardson <>
Message-ID: <4srsm1hkm37tbakooehau801uph9fmctsf@4ax.com>
Source record: 67885

On Sun, 6 Nov 2005 15:43:14 -0500, "garigue" <garigue@comcast.net>
wrote:

>Hello all ....I have seen some where a list of what length of feedline to
>avoid resonance wise..... Does anyone know the site ?? I will be
>using 450 twin for the antenna .....never used open wire feed in my 40 years
>in this endeavor. Thanks in advance ......
>
You need only the length of line necessary to make from you rig/tuner
to the antenna. The are some cases that the line length may result
difficulty matching. If so, just add a few feet. Don't worry about
resonance.

73,
Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

3189. Re: Selecting a rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 23:17:23 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11mt3o3to3jk2a3@corp.supernews.com>
Source record: 67886

Tam,

I see what you mean. I was leaning towards the Yaesu G-450A rotator instead of the Hy-Gain AR-40. I read a less than favorable review on that one. However, I also read some unfavorable reviews on the Yaesu G-450A. People's main complaint was about the buttons on the control box not being very good.

Actually, the VHF/UHF antenna I was thinking of putting up is only 1 sq.ft., I was just using 10 sq.ft. as an example. I did read about the thrust bearing and agree with you on that.

Rod KI7CQ

3190. how to check balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-06 23:17:51 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <A9wbf.44500$ty1.20460@bignews1.bellsouth.net>
Source record: 67887

Just put up a 140' dipole with 450 ohm ladderline feed.

I'm using an unbalanced tuner with a Spi-Ro 1:1 balun on the output side of the tuner. The balun is one of those designed to be used right at the center feed point of the antenna, with coax as the feedline. I think it should work out fine being directly at the output of the tuner, with ladderline going up to the antenna.

However, there is some disconnect between the rig and antenna. I suspect my balun may be bad internally. What's a good quick and dirty check with an ohmeter (don't know if these baluns are current or voltage types, so maybe include a checkout procedure for both kinds).

I'm just starting to fault isolate. Since the balun is a new link in the chain from rig to antenna, it's my first suspect.

3191. Re: Selecting a rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 00:26:56 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <kbxbf.5802$m81.4352@newsread1.news.atl.earthlink.net>
Source record: 67888

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11mt3o3to3jk2a3@corp.supernews.com...
> Tam,
>
> I see what you mean. I was leaning towards the Yaesu G-450A rotator
instead
> of the Hy-Gain AR-40. I read a less than favorable review on that one.
> However, I also read some unfavorable reviews on the Yaesu G-450A.
People's
> main complaint was about the buttons on the control box not being very
good.
>
> Actually, the VHF/UHF antenna I was thinking of putting up is only 1
sq.ft.,
> I was just using 10 sq.ft. as an example. I did read about the thrust
> bearing and agree with you on that.
>
> Rod KI7CQ
>
>

The probably make things with less quality now than they did about 40 years ago. I had an 11 element 2 meter CC beam (please no comments about that antenna) on a AR 33 that was even less heavy duty than the ar40 was at that time. The rotator has been turning a big TV antenna for the last 30 years. For a small vhf antenna I would look around for a used (doubt you could find a new) Alliance U-100. It should be about $ 150 or more less than the ar40. I have one mounted in a tower (no thrust bearing) but the mast goes through 2 plates about 2 feet apart and the hole in them is only about 1/2 inches bigger than the mast and it has been turning a 8 element 14 foot boom 2 meter , 22 element 440 and an 8 element 10 foot boom 220 mhz antenna for about 10 years.

3192. What Would You Do??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 00:27:00 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <89xbf.14860$td.1301@bignews3.bellsouth.net>
Source record: 67889

Years ago I cleared a 200 foot path in among some hard woods....Needed to
practice my high irons....

But Now...lets put up a monster antenna.. For high bands 17 - 20 meters.

In this path I've got two 120 foot towers in line with Europe. The towers
are 500 feet apart......Its pretty well open on the sides

I can easily run a cable between them and then
hang what...???

Give me your dream antenna...or your best shot!!!

Thanks,

Bill
http://www.kc4pe.com/amateurshack.htm

3193. Re: how to check balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 00:34:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mt89rl4nm5a17@corp.supernews.com>
Source record: 67890

With a current balun, you should have continuity from the feedline conductors to the antenna conductors just as though the balun were a couple of pieces of wire connecting the feedline directly to the antenna. There shouldn't be any continuity from one side of the antenna or feedline to the other.

A correctly operating voltage balun will show continuity between any pair of conductors, input to input, output to output, or input to output, just as though they were all shorted together inside. If there's an internal short where it shouldn't be, you won't be able to determine it with an ohmmeter. But you'd be able to see an open connection.

You won't be able to tell a short-circuited current balun from a normally operating voltage balun with an ohmmeter, either.

Using the balun as you are might cause its destruction. If the impedance seen at the input of the ladderline is very high (which is particularly possible if you're using the dipole on multiple bands), the voltage appearing across the balun might well be more than it's designed to handle. There are also likely to be common mode impedances on some bands that will be too high for the balun to be effective. Moving the balun to the antenna will change the bands where those conditions exist, but won't necessarily alleviate them -- assuming you're using the dipole on multiple bands, that is. You might consider taking a look at Cecil's web site for some alternatives.

Roy Lewallen, W7EL

RB wrote:
> Just put up a 140' dipole with 450 ohm ladderline feed.
>
> I'm using an unbalanced tuner with a Spi-Ro 1:1 balun on the output side of
> the tuner. The balun is one of those designed to be used right at the
> center feed point of the antenna, with coax as the feedline. I think it
> should work out fine being directly at the output of the tuner, with
> ladderline going up to the antenna.
>
> However, there is some disconnect between the rig and antenna. I suspect my
> balun may be bad internally. What's a good quick and dirty check with an
> ohmeter (don't know if these baluns are current or voltage types, so maybe
> include a checkout procedure for both kinds).
>
> I'm just starting to fault isolate. Since the balun is a new link in the
> chain from rig to antenna, it's my first suspect.
>
>

3194. Re: Selecting a rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 00:52:23 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <gZqdnci6S81BOfPeRVn-hg@comcast.com>
Source record: 67891

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11mt3o3to3jk2a3@corp.supernews.com...
> Tam,
>
> I see what you mean. I was leaning towards the Yaesu G-450A rotator
> instead of the Hy-Gain AR-40. I read a less than favorable review on that
> one. However, I also read some unfavorable reviews on the Yaesu G-450A.
> People's main complaint was about the buttons on the control box not being
> very good.
>
> Actually, the VHF/UHF antenna I was thinking of putting up is only 1
> sq.ft., I was just using 10 sq.ft. as an example. I did read about the
> thrust bearing and agree with you on that.
>
> Rod KI7CQ
>
>
At 1 square foot, you could save a lot of money and use a TV rotator. I have a G&C on the UHF TV antenna. The same, or similar rotors are sold as ECG, Radio Shack, and ChannelMaster. I think I paid $59 for it from Warren Electronics. It does not seem to have the synchronization problem of the old CD things that went cluck-clunk. My ham rotor is a Yaesu G1000, but it has 3 antennas on top of it, with a HyGain tribander the bottom most. I think the AR40 started life as the CD22 TV rotator; looks like it has an updated control box, though.

Tam/WB2TT

3195. Re: how to check balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 01:48:27 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <_lybf.2649$kd.2028@bignews4.bellsouth.net>
Source record: 67892

Wow! Good info, Roy. Thanks. That should get me going, at least.

3196. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 07:24:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkmvf3onq1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67893

"Crazy George" wrote
> I'm afraid you're way behind the practice on this one. In the US,
there are
> many 4, 5 and 6 tower arrays providing as many nulls to protect
co-channel
stations.

==========

What proportion of US MF broadcasting stations have antennas
consisting of more than two towers ?

Reg.

3197. how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 12:04:09 UTC
From: andy <drbrain@hot.ee>
Message-ID: <1131365048.980502.250150@z14g2000cwz.googlegroups.com>
Source record: 67894

Here is the situation: have an inverted V for 80m and noise level is S9.. Not good really....
I did the next logical step and tryied magnetic loop for 80, reciving only, indoors. That antenna failed awfully.... Noise was S8 but I could not hear stations that were 9+10 on inverted V. Did'nt matter how I tryied to rotate the loop, all there was is noise. So, indoors is right out..
All that is left is roof. And that makes my situation interesting. It is a big house with new metal roof, electrically bounded. 10X60 metres, 17 metres hight, angled about 20 degrees. Big ground plane indeed. All I could figure is to get some sort of antenna to the roof so the roof would act as a shield from all the noise generated inside the house. That antenna would be for receiving 80m, can be narrow band (50KHz ok). NVIS pattern would be prefered.
So, I have huge ground plane, lots and lots of noise below it, and need a receiving-only antenna.
What would you do in this situation? Loop, magnetic loop, dipole, short beverage perhaps???
Any advice is welcome. Right now I cant even figure if that roof is acting like a shield or a big noise-sucking antenna..

Andrus

3198. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 12:12:20 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <ruHbf.2405$fB2.2143@bignews2.bellsouth.net>
Source record: 67895

Interesting....if there is something better out there what is it?......been using a 259 since "98" and its done the job for me from beams-wires...co-ax measurement....ans the latest, balancing out the 1/4 wave stubs on a Hygain HighTower, as I added 17 meters to the array!!
"John Ferrell" <johnferrell@sprintmail.com> wrote in message news:d9enm19a9t3o05d9rd922tls1oq69vptn2@4ax.com...
>I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF
> Analyzer.
>
> It sounds like a Swiss Army knife device and I should be able to send
> a lot of old equipment to Ebay. Does anyone have any comments to make
> on it? Good or bad?
>
> I have read the review in May 2005 QST and the manual available at
> their website.
>
> John Ferrell, W8CCW

3199. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 13:46:25 UTC
From: "John, N9JG" <john@gotwals.XremoveThisY.com>
Message-ID: <RUIbf.527814$_o.286485@attbi_s71>
Source record: 67896

The Palstar ZM30 Digital Antenna Z Bridge - VFO is also an excellent
unit.
http://www.palstar.com/zm30.php
http://www.eham.net/reviews/detail/4782

John, N9JG

"Bill" <kc4pe@bellsouth.net> wrote in message
news:ruHbf.2405$fB2.2143@bignews2.bellsouth.net...
> Interesting....if there is something better out there what is
> it?......been using a 259 since "98" and its done the job for me
> from beams-wires...co-ax measurement....ans the latest, balancing
> out the 1/4 wave stubs on a Hygain HighTower, as I added 17 meters
> to the array!!
> "John Ferrell" <johnferrell@sprintmail.com> wrote in message
> news:d9enm19a9t3o05d9rd922tls1oq69vptn2@4ax.com...
>>I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF
>> Analyzer.
>>
>> It sounds like a Swiss Army knife device and I should be able to
>> send
>> a lot of old equipment to Ebay. Does anyone have any comments to
>> make
>> on it? Good or bad?
>>
>> I have read the review in May 2005 QST and the manual available at
>> their website.
>>
>> John Ferrell, W8CCW
>
>

3200. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 14:11:44 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <dknnav$1g26$1@f04n12.cac.psu.edu>
Source record: 67897

I use 2 ham stick mobile antennas phased to produce a receive antenna on 80m
that works very well.
It has a response that is close to a reasonable sized beverage. They are
spaced 1/8 wavelength apart and feed 135 deg. out of phase with a coax
phasing line. I have a relay setup that lets me change the direction, in my
case north-east / south-west. The signal levels are down from the dipole I
use for transmit but the signal to noise level are much better. A signal
that would be S-9 with S-8 of noise on my dipole becomes S-6 to S-7 on the
verticals with no noise. It makes DXing on 80m fun. Details for the design
of the phasing system are in ON4UN's book on low band dxing. One of the
advantages of using mobile antennas is the mutual coupling is very low
between them. This greatly simplifies the setup. Note that this would be a
poor transmitting antenna do to the poor ground plane I have and mobile
whips are not a good antenna on 80m.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"andy" <drbrain@hot.ee> wrote in message
news:1131365048.980502.250150@z14g2000cwz.googlegroups.com...
> Here is the situation: have an inverted V for 80m and noise level is
> S9.. Not good really....
> I did the next logical step and tryied magnetic loop for 80, reciving
> only, indoors. That antenna failed awfully.... Noise was S8 but I could
> not hear stations that were 9+10 on inverted V. Did'nt matter how I
> tryied to rotate the loop, all there was is noise. So, indoors is right
> out..
> All that is left is roof. And that makes my situation interesting. It
> is a big house with new metal roof, electrically bounded. 10X60 metres,
> 17 metres hight, angled about 20 degrees. Big ground plane indeed. All
> I could figure is to get some sort of antenna to the roof so the roof
> would act as a shield from all the noise generated inside the house.
> That antenna would be for receiving 80m, can be narrow band (50KHz
> ok). NVIS pattern would be prefered.
> So, I have huge ground plane, lots and lots of noise below it, and need
> a receiving-only antenna.
> What would you do in this situation? Loop, magnetic loop, dipole, short
> beverage perhaps???
> Any advice is welcome. Right now I cant even figure if that roof is
> acting like a shield or a big noise-sucking antenna..
>
> Andrus
>

3201. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 14:21:59 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <1noum19ctnsod6eu3dk1cnh9pdoav82121@4ax.com>
Source record: 67898

After reading the remarks here and researching the past posts to the newsgroup on the MFJ-269 I feel I have been missing out on a lot. The best overall description I have found anywhere (including the MFJ web site) is in the current ad in QST.

I ordered it Saturday morning and am eagerly awaiting its arrival.

John Ferrell, W8CCW

On Mon, 7 Nov 2005 07:12:20 -0500, "Bill" <kc4pe@bellsouth.net> wrote:

>Interesting....if there is something better out there what is it?......been
>using a 259 since "98" and its done the job for me from beams-wires...co-ax
>measurement....ans the latest, balancing out the 1/4 wave stubs on a Hygain
>HighTower, as I added 17 meters to the array!!

>

3202. Re: 135' flattop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 14:29:45 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <16pum1d23nfpo0fk38ptisqhkek4gdhte1@4ax.com>
Source record: 67899

Here is a bit I ran across the other day...

I copied this out of the MFJ-269 antenna analyzer manual:
"Resonance at the feedpoint only repeats when a mismatched feedline is
an exact multiple of 1/4 wl. If the line is not an exact multiple of
1/4 wl, the resonant frequency of the antenna might be shifted higher
or lower by the transmission line. A mismatched line that is not an
exact multiple of a quarter-wavelength adds reactance that can either
cancel antenna reactance at frequencies where the antenna is not
resonant, or add reactance at frequencies where the antenna is
resonant."

My deduction:

In essence, if the feedline is matched there is no problem. If it is a
multiple of 1/4 wave in length there is still no problem! Trying to do
both is a good idea.

John Ferrell, W8CCW

On Sun, 06 Nov 2005 13:07:14 -0800, Dan Richardson <> wrote:

>On Sun, 6 Nov 2005 15:43:14 -0500, "garigue" <garigue@comcast.net>
>wrote:
>
>>Hello all ....I have seen some where a list of what length of feedline to
>>avoid resonance wise..... Does anyone know the site ?? I will be
>>using 450 twin for the antenna .....never used open wire feed in my 40 years
>>in this endeavor. Thanks in advance ......
>>
>You need only the length of line necessary to make from you rig/tuner
>to the antenna. The are some cases that the line length may result
>difficulty matching. If so, just add a few feet. Don't worry about
>resonance.
>
>73,
>Danny, K6MHE
>
>email: k6mhe<at>arrl<dot>net
>http://www.k6mhe.com/

3203. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 14:57:52 UTC
From: richardharrison@webtv.net
Message-ID: <10021-436F6B70-911@storefull-3251.bay.webtv.net>
Source record: 67901

Andrus wrote:
"Any advice is welcome."

Andrus has a bonded metal roof 10x60 mtr which is 17 mtr high.

An automobile contains radio noise within its engine compartment by using a metal cover. A roof does not completely cover and surround noise sources within a house, but if it is effectively grounded at the receiving frequency, the roof can help block transmission of noise into an antenna mounted above it.

A dipole is balanced and slightly directional. This helps avoid noise pick up. A balun at the antenna feedpoint helps keep the antenna balanced and allows connection of coax to run through noisy areas without pickup.

A low dipole over a reflective surface has a high-angle radiation pattern, excellent for NVIS.

With an agile antenna tuner you may be able to hear and work stations within several hundred miles.

Best regards, Richard Harrison, KB5WZI

3204. Re: What Would You Do??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 15:01:59 UTC
From: Registered User <n4jvp@ix.netcom.com>
Message-ID: <q1mum1pmiutt08b1adh0kjonlnqblmddjm@4ax.com>
Source record: 67903

On Sun, 6 Nov 2005 19:27:00 -0500, "Bill" <kc4pe@bellsouth.net> wrote:

>
>
>Years ago I cleared a 200 foot path in among some hard woods....Needed to
>practice my high irons....
>
Don't we all? I've been using 21 and 24 degree rescue clubs keeping
the 3 thru 5 irons in the bag.
>But Now...lets put up a monster antenna.. For high bands 17 - 20 meters.
>
>In this path I've got two 120 foot towers in line with Europe. The towers
>are 500 feet apart......Its pretty well open on the sides
>
>I can easily run a cable between them and then
>hang what...???
>
>Give me your dream antenna...or your best shot!!!
>
I would go with a simple 'Loop Skywire' in the vertical plane. A
200x100 foot loop is well over a full-wave at 160M so with a balanced
matching device it will be an all-band antenna. I have a 500 foot
horizontal loop that provides absolutely amazing performance so I may
be a little biased <g>.

I would also consider a four bay 40M or a ten bay 20M Sterba curtain.
A bobtail curtain is another possibility.

73 de n4jvp
Fritz

3205. Re: Swap. NEW ARRL ANTENNA BOOK 20ed.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 15:03:25 UTC
From: hhc314@yahoo.com
Message-ID: <1131375805.899177.263780@g14g2000cwa.googlegroups.com>
Source record: 67900
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Mike, are you buying or selling?
It's not clear from your post.

If you are selling, what are the prices you're asking?

Harry C.

3206. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 15:11:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <w8Kbf.10165$D13.8919@newssvr11.news.prodigy.com>
Source record: 67902

andy wrote:
> Here is the situation: have an inverted V for 80m and noise level is
> S9.. Not good really....
> Any advice is welcome. Right now I cant even figure if that roof is
> acting like a shield or a big noise-sucking antenna..

If you can somehow get your inverted-V to a horizontal position
for testing, you might be plesantly surprised. At my QTH, going
from an inverted-V to a horizontal dipole at the same center
height lowered my noise level by 2 S-units on 40m.
--
73, Cecil http://www.qsl.net/w5dxp

3207. Re: 135' flattop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 15:33:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CtKbf.10169$D13.234@newssvr11.news.prodigy.com>
Source record: 67904

John Ferrell wrote:

> Here is a bit I ran across the other day...
>
> I copied this out of the MFJ-269 antenna analyzer manual:
> "Resonance at the feedpoint only repeats when a mismatched feedline is
> an exact multiple of 1/4 wl. If the line is not an exact multiple of
> 1/4 wl, the resonant frequency of the antenna might be shifted higher
> or lower by the transmission line. A mismatched line that is not an
> exact multiple of a quarter-wavelength adds reactance that can either
> cancel antenna reactance at frequencies where the antenna is not
> resonant, or add reactance at frequencies where the antenna is
> resonant."
>
> My deduction:
>
> In essence, if the feedline is matched there is no problem. If it is a
> multiple of 1/4 wave in length there is still no problem! Trying to do
> both is a good idea.

Your deduction is not 100% valid. 1/4WL can be a BIG problem and
worst case for matching.

I guess MFJ is technically correct but confusing. For instance,
assume a 50 ohm antenna and 1/4WL of 600 ohm open-wire line. The
"resonant" impedance seen looking into the feedline would be 7200
ohms, outside the matching range for a lot of MFJ tuners. Half a
century ago, we called that the "anti-resonant" point (akin to a
parallel resonant impedance). Most amateur radio operators should
substitute 1/2WL for 1/4WL in the above MFJ manual quote to avoid
thinking 1/4WL is "no problem".
--
73, Cecil http://www.qsl.net/w5dxp

3208. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 15:34:18 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11mut03pv2cl0a0@corp.supernews.com>
Source record: 67905

A couple of antennas that work well at this qth...typical urban environment
with elevated power lines and assorted other racket.
Run a big horizontal loop around the place..feed with coax for recieve only
or twin lead plus transmatch for recieve/transmit. This is the one I am
currently using.
Previous antenna...which also works pretty good was a 100 ft bowtie doublet.
I used to run the doublet with vertical drops on the ends, but found that
any vertical drop on the ends of the antenna really picked up the racket. If
I left the vertical drops off the ends, I never did like the way the Johnson
Matchbox was coupling with the feedline...450 ohm...on 80 meters. I would up
with 10 ft end drops, then running a wire from the bottom of the end drops
back up to the feed point.
Tuned a lot better, broad banded and rejected noise pretty well.
"andy" <drbrain@hot.ee> wrote in message
news:1131365048.980502.250150@z14g2000cwz.googlegroups.com...
> Here is the situation: have an inverted V for 80m and noise level is
> S9.. Not good really....
> I did the next logical step and tryied magnetic loop for 80, reciving
> only, indoors. That antenna failed awfully.... Noise was S8 but I could
> not hear stations that were 9+10 on inverted V. Did'nt matter how I
> tryied to rotate the loop, all there was is noise. So, indoors is right
> out..
> All that is left is roof. And that makes my situation interesting. It
> is a big house with new metal roof, electrically bounded. 10X60 metres,
> 17 metres hight, angled about 20 degrees. Big ground plane indeed. All
> I could figure is to get some sort of antenna to the roof so the roof
> would act as a shield from all the noise generated inside the house.
> That antenna would be for receiving 80m, can be narrow band (50KHz
> ok). NVIS pattern would be prefered.
> So, I have huge ground plane, lots and lots of noise below it, and need
> a receiving-only antenna.
> What would you do in this situation? Loop, magnetic loop, dipole, short
> beverage perhaps???
> Any advice is welcome. Right now I cant even figure if that roof is
> acting like a shield or a big noise-sucking antenna..
>
> Andrus
>

3209. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 15:52:26 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <11muu2etf24fe00@corp.supernews.com>
Source record: 67906

The only problem with the Palstar is that it only goes to 30 MHz., while the MFJ goes well into the VHF range past two meters with (I believe) an option to go to 440.

Jim

"John, N9JG" <john@gotwals.XremoveThisY.com> wrote in message news:RUIbf.527814$_o.286485@attbi_s71...
> The Palstar ZM30 Digital Antenna Z Bridge - VFO is also an excellent unit.

3210. Flagpole antenna - experiences

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 15:55:11 UTC
From: Mike Bates <mbates_co@comcast.net>
Message-ID: <NvKdnfyxRdV95fLeRVn-pw@comcast.com>
Source record: 67907

I am considering buying or building a flagpole antenna. My preference is for an antenna that covers 10 to 80 meters. I have seen the one listed at the Force-12 site but would like some independent input on this antenna before buying. Also, I was looking for plans on building one myself but not much luck yet in finding any.

Thanks
Mike
N7DQ

3211. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 16:01:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PTKbf.10173$D13.6326@newssvr11.news.prodigy.com>
Source record: 67908

Denton wrote:
> I used to run the doublet with vertical drops on the ends, but found that
> any vertical drop on the ends of the antenna really picked up the racket.

Same as at my QTH. Anything vertical is noisier on receive.

> If I left the vertical drops off the ends, I never did like the way the Johnson
> Matchbox was coupling with the feedline...450 ohm...on 80 meters.

Because your feedline length was somewhere in the ballpark
of 1/4 wavelength and presented a very high impedance to
the Matchbox. Ladder-line feedline lengths for low-impedance
antennas need so be close to multiples of 1/2 wavelength,
a little over 100 feet on 80m. Unfortunately, a lot of
ladder-line-fed 80m dipoles and loops are closer to 1/4WL,
around 60 feet or so which may be worst case for limited range
tuners like Johnson Matchboxes and internal autotuners.
--
73, Cecil http://www.qsl.net/w5dxp

3212. Re: Flagpole antenna - experiences

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 16:14:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%3Lbf.10179$D13.8908@newssvr11.news.prodigy.com>
Source record: 67909

Mike Bates wrote:
> I am considering buying or building a flagpole antenna. My preference
> is for an antenna that covers 10 to 80 meters. I have seen the one
> listed at the Force-12 site but would like some independent input on
> this antenna before buying. Also, I was looking for plans on building
> one myself but not much luck yet in finding any.

I had one at my QTH but it was so noisey I took it down. Your
QTH might have a lower vertically-polarized noise level so
here is what I did - not exactly a flagpole but may give you
an idea.

I erected a 20 foot long vertical fed at the base with an
SGC-230 autotuner. It had 8 33 foot buried radials. 20 feet
is 5/8WL on 10m. This antenna worked well for transmitting
on 40m-10m. If it hadn't been so noisey on receive, I would
have added a high-Q base-loading coil for 75m operation
although the SGC-230 actually loaded well on 75m. I should
have left it up and switched to my dipole for receive.
--
73, Cecil http://www.qsl.net/w5dxp

3213. Re: Flagpole antenna - experiences

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 16:43:22 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <kuLbf.17571$i%.431@fed1read07>
Source record: 67910

A flagpole antenna article at URL:
http://www.sgcworld.com/23ftflagpoleinstall.html
Uses a SGC tuner

Be careful of using PVC pipe -- smaller diameters bend very easy.

Also when using PVC, check the PVC grade for carbon content -- some have enough carbon to upset the resonance points. Had a friend put a commercial vertical in PVC pipe but the carbon in the PVC pipe detuned it and it wouldn't work.

Building a single band flagpole vertical is easy. But making it cover 80 thru 10M can be complex. You probably want to use a tuner of some kind

My 2 cents

--
CL -- I doubt, therefore I might be !

"Mike Bates" <mbates_co@comcast.net> wrote in message
news:NvKdnfyxRdV95fLeRVn-pw@comcast.com...
>I am considering buying or building a flagpole antenna. My preference
> is for an antenna that covers 10 to 80 meters. I have seen the one
> listed at the Force-12 site but would like some independent input on
> this antenna before buying. Also, I was looking for plans on building
> one myself but not much luck yet in finding any.
>
> Thanks
> Mike
> N7DQ

3214. Re: What Would You Do??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 16:52:59 UTC
From: Pat Whelton <pwhelton@earthlinkNOSPAM.net>
Message-ID: <LDLbf.950$Xo.189@newsread2.news.pas.earthlink.net>
Source record: 67911

```
">
>
> Years ago I cleared a 200 foot path in among some hard woods....Needed to
> practice my high irons....
>

I dunno, it might be time to consider spending the bucks and seeing a Pro.

Good luck and hit 'em straight.
```

3215. ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 18:07:30 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <0IMbf.2543$fB2.1804@bignews2.bellsouth.net>
Source record: 67912

Got a Radio Works choke balun I'd like to use for feeding ladderline out of an unbalanced tuner.

The balun has coax fittings on each end.

Ladderline doesn't adapt well to coax interfaces.

What's the best way to put ladderline to my balun coax fitting?

I can kluge a PL-259 plug onto the ladderline.

I guess I could also stick one side of the ladderline in the center hole of the chassis coac fitting, and clamp the other side to the threaded part of the chassis fitting.

Ideas solicited.

3216. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 18:10:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s14vm198lggdkkfr7crrs534t2qu5m9qjr@4ax.com>
Source record: 67913

On 7 Nov 2005 04:04:09 -0800, "andy" <drbrain@hot.ee> wrote:

>Here is the situation: have an inverted V for 80m and noise level is
>S9.. Not good really....

Hi Andrus,

Put 1:1 BalUn at end of Coax transmission line as choke. This will
isolate local noise from line input. Also, does your transceiver
share a circuit (identified at the breaker) with a noisy appliance?
Change circuits (go to another outlet that is on a different breaker).
Do you have a good RF ground? This goes against much of the common
lore of dipoles being independent of ground. True, the antenna alone
requires no ground, but somewhere your rig is connected to it, and it
can be a very poor connection to a very poor RF ground. This is a
very common path for noise to enter your receiver.

73's
Richard Clark, KB7QHC

3217. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 18:18:13 UTC
From: fh03 <fh03.1y5asg@news.radiobanter.com>
Message-ID: <fh03.1y5asg@news.radiobanter.com>
Source record: 67979

David, can you please elaborate on how this can be done? And how it can be implemented so that the proper signal activates the unit.

I'm sort of a newbie in this field and would appreciate it if you could explain how this can be done in greater detail.

Thanks again.

David G. Nagel Wrote:
> Use the passive receiver to power a transistor switch to activate the
> transmitter. You should be able to induce enough power in the unit to
> switch some kind of transistor switch connecting the battery to the
> second stage of the unit. You would have to be careful that only the
> proper signal activates the unit though.
>
>
> Dave WD9BDZ
>
>
>
> fh03 wrote:
>
> thanks for your input guys. I havent been able to come online due to
> power outages caused by hurricane wilma.
>
> anyway. the reed switch mentioned would work, but the distance is the
> issue. I currently have an rfid reader and passive tag, but they too
> work only within a few inches. What I need is for the device to be
> activated within 5 feet of the receiver and from my understanding a
> reed switch cant do that.
>
> I know electronic toll payment systems seem to conserve battery, and
> thats what i need. Bascially I want to have a battery in the unit,
> but
> I dont want the battery to be connected until we're in that range.
> The
> reason passive devices dont work is because even though the antenna
> can
> provide an induced current, without a battery the tag doesnt have
> enough
> power to be able to transmit over say a few inches, let alone five
> feet.
> So we need battery in the transmitter. The user only carries a
> transmitter, so it doenst know when it is within range. I have a
> microcontroller that will transmit an ID as soon as it is powered up,

> but I dont want it to be on at all times, and I dont want a switch.
> I'll look into the "Hall Effect" now and see what its about.
>
> Thanks again guys, keep it coming.
>
>

--
fh03

3218. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 18:23:03 UTC
From: richardharrison@webtv.net
Message-ID: <5587-436F9B87-955@storefull-3256.bay.webtv.net>
Source record: 67914

Reg, G4FGQ wrote:
"What proportions of U.S. broadcasting stations have antennas consisting of more than two towers?"

I don`t know but from my own experience, the number is large. A new applicant for a station must show he will not interfere with existing stations by limiting his radiation in the directions of the existing stations while providing minimum field intensity, 0.5 to 50 mV, depending on population, in the new service area. A two-tower array cannot satisfy some complicated pattern requirements.

Most broadcasters want to provide more than 1 KW radiation in their areas. Well over one hundred channels in the medium wave broadcast band in North America allow that. There are well over 1000 regional medium wave broadcasters in North America. It is difficult to fit a new broadcaster in when he wants to use real power.

Best regards, Richard Harrison, KB5WZI

3219. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 18:37:57 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97076C42C4741spectrumhogstarbandn@207.106.93.175>
Source record: 67915

> Got a Radio Works choke balun I'd like to use for feeding ladderline
> out of an unbalanced tuner.
>

I'm sure others here will correct me if I'm wrong, but I believe that what you want to do is a very bad idea. Baluns are not meant to operate under the potential very high SWR conditions you are likely to have on the output of your tuner. Damage to the balun is likely. Besides, what is the point of a balun on your tuner's output if you are using ladderline, anyway?

Ed K7AAT

3220. Re: 135' flattop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:07:36 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ta9vm1leroik7u4nhhibl67nbegk5n4rfa@4ax.com>
Source record: 67916

That makes sense to me!

Thanks for the correction.
A bold but incorrect position frequently provokes some one who knows
to reveal the correct answers...

On Mon, 07 Nov 2005 15:33:54 GMT, Cecil Moore <mycall@arrl.net> wrote:

John Ferrell W8CCW

>Your deduction is not 100% valid. 1/4WL can be a BIG problem and
>worst case for matching.
>
>I guess MFJ is technically correct but confusing. For instance,
>assume a 50 ohm antenna and 1/4WL of 600 ohm open-wire line. The
>"resonant" impedance seen looking into the feedline would be 7200
>ohms, outside the matching range for a lot of MFJ tuners. Half a
>century ago, we called that the "anti-resonant" point (akin to a
>parallel resonant impedance). Most amateur radio operators should
>substitute 1/2WL for 1/4WL in the above MFJ manual quote to avoid
>thinking 1/4WL is "no problem".

3221. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:16:08 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dko95kmos1@news.service.uci.edu>
Source record: 67917

Richard Clark wrote:

>> EZNEC+ ver. 4.0
>>
>>Dipole in Ring of Sources 11/2/2005 10:00:48 PM
>>
>> --------------- LOAD DATA ---------------
>>
>>Frequency = 70 MHz
>>
>>Load 1 Voltage = 4.783 V. at 23.52 deg.
>> Current = 0.06643 A. at 23.52 deg.
>> Impedance = 72 + J 0 ohms
>> Power = 0.3177 watts
>>
>> Total applied power = 2000 watts
>>
>> Total load power = 0.3177 watts
>
>
> Taking the determination above as the "standard" I then have
> progressed to place an NBS yagi in three space about the center to
> obtain its best result.
>
> All such expressions (x,y,z) of the placement of the NBS yagi are with
> respect to its "driven" element.
>
> 0,0,0 Power = 0.2091 watts
> .5,0,0 Power = 0.2198 watts
> 1,0,0 Power = 0.1429 watts
> 1.5,0,0 Power = 0.1026 watts
> 2,0,0 Power = 0.1601 watts
> 2.5,0,0 Power = 0.2113 watts
> 3,0,0 Power = 0.1571 watts
> 3.5,0,0 Power = 0.06028 watts
> 4,0,0 Power = 0.04128 watts
>
> So, within one quadrant, and over the space of roughly a wavelength,
> and at intervals of roughly one eighth wavelength, nothing emerges as
> being equal to the "standard" above. Except perhaps a hidden peak
> between 0,0,0 and .5,0,0. To investigate this:
> .25,0,0 Power = 0.2286 watts
> examining further:
> .125,0,0 Power = 0.2219 watts

> nope, examining further:
> .375,0,0 Power = 0.2278 watts
> nope, examining further:
> .30,0,0 Power = 0.2291 watts
> nope, examining further:
> .35,0,0 Power = 0.2285 watts
> nope, looks like the one before at .30,0,0 is the new sweet spot.
>
> Now, to proceed to investigate the other quadrants to see if there is
> symmetry:
> -3.5,0,0 Power = 0.03997 watts
> 0,3.5,0 Power = 0.005925 watts
> 0,-3.5,0 Power = 0.005859 watts
>
> This last offers that on the Y axis there is a strong symmetry, and
> along the X axis there is a moderate symmetry. Now, in regard to both
> the X and the Y axis, there is a moderate symmetry. If we were to
> look at the fine data attempting to find the peak, we should notice
> that the "center" of the antenna lies between the "driven" element and
> its reflector. My having chosen the "driven" element as the nominal
> center was in error and my guess is that if I re-visited the same
> quadrant test above, with that new center at the sweet spot, then we
> would find very strong symmetry in all four quadrants. I will add
> that the Y axis data supports this due to its strong symmetry that is
> relatively immune from the choice of antenna center - at least at this
> scale.
>
> Putting that aside, it is enough to suggest that barring an
> exquisitely positioned peak of rather a sharp rise, then the yagi
> exhibits a poorer response compared to a dipole of approx. 1.4dB.
>
> Others are encouraged to investigate further to reclaim that missing
> dB or to put the horns to my error.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

I think what you're seeing is the 3-D interference pattern generated by your sources. I'm not sure that really tells us very much about the antennas themselves. You'd need to surround each of the antennas with a uniform field in order to compare them. By uniform, I mean the field intensity toward the antenna is the same in any direction.

Thanks, AC6XG

3222. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:23:32 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1131391412.105801.165550@z14g2000cwz.googlegroups.com>
Source record: 67918

Why are you using a choke at that point in the system? You should use either a 1:1 or 4:1 current balun to go from coax to ladderline..and keep the coax VERY short to minimize losses on it due to high SWR. A choke is for something entirely different.

Jim/K2TL

3223. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:31:17 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1131391877.551800.193000@z14g2000cwz.googlegroups.com>
Source record: 67919

How about trying to locate the source of the noise? Is it in your house or is it in the neighborhood? It could be something simple like a streetlight buzzing a couple of blocks away. The power company USUALLY pretty good about fixing those kinds of problems. Walk around with a portable AM or shortwave radio and see if you can find the offending pole or whatever. If the noise is in the house, like a dimmer switch, or a tap on lamp, or an appliance, you can fix all that easy enough too.
I'm also wondering about your rigs noise blanker. Most modern radios have pretty darn good NB's. Its not a cure, but it should be reasonably effective, unless the noise is a total monster. In that case, all the more reason to find out where its coming from.

Good Luck K2TL

3224. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:40:29 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <mK2dnS9IEYncMPLenZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 67920

"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:1noum19ctnsod6eu3dk1cnh9pdoav82121@4ax.com...
> After reading the remarks here and researching the past posts to the
> newsgroup on the MFJ-269 I feel I have been missing out on a lot. The
> best overall description I have found anywhere (including the MFJ web
> site) is in the current ad in QST.
>
> I ordered it Saturday morning and am eagerly awaiting its arrival.
>
> John Ferrell, W8CCW

I am happy with mine. Only thing I can add is that it eats batteries, and my unit does not like to work below 13 Volts. They do sell a tunable bandpass filter for the lower frequencies. I tried a high pass filter - don't bother, it messes up the phase.

Tam/WB2TT

3225. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:52:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <EfObf.16042$dO2.12949@newssvr29.news.prodigy.net>
Source record: 67921

RB wrote:
> Got a Radio Works choke balun I'd like to use for feeding ladderline out of
> an unbalanced tuner.
>
> The balun has coax fittings on each end.

Sounds like it is actually a UNUN.

> I can kluge a PL-259 plug onto the ladderline.

That will work. I usually just splice a short piece
of coax to the ladder-line.
--
73, Cecil http://www.qsl.net/w5dxp

3226. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:54:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xhObf.16047$dO2.11347@newssvr29.news.prodigy.net>
Source record: 67922

Richard Harrison wrote:
> I don`t know but from my own experience, the number is large.

I would guess that the majority of US AM antennas that I
have seen with my own eyes have more than one element.
--
73, Cecil http://www.qsl.net/w5dxp

3227. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 19:57:25 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <FkObf.16049$dO2.15833@newssvr29.news.prodigy.net>
Source record: 67923

Ed wrote:

>>Got a Radio Works choke balun I'd like to use for feeding ladderline
>>out of an unbalanced tuner.
>>
> I'm sure others here will correct me if I'm wrong, but I believe that
> what you want to do is a very bad idea. Baluns are not meant to operate
> under the potential very high SWR conditions ...

It depends on whether the very high SWR is on the ladder-line
side or on the coax side. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3228. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 20:01:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <CoObf.16051$dO2.7685@newssvr29.news.prodigy.net>
Source record: 67924

Jim Kelley wrote:
> I think what you're seeing is the 3-D interference pattern generated by
> your sources.

Richard is not trying to superpose powers again, is he? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3229. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 20:04:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <XqObf.16052$dO2.2288@newssvr29.news.prodigy.net>
Source record: 67925

JimK2TL@gmail.com wrote:
> Why are you using a choke at that point in the system? You should use
> either a 1:1 or 4:1 current balun ...

A properly designed choke performs the function of a
balun very well - witness the W2DU choke-balun. If
the common-mode currents are choked off in the coax
direction, they must necessarily flow in the ladder-
line direction.
--
73, Cecil http://www.qsl.net/w5dxp

3230. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 20:08:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <HuObf.16053$dO2.1866@newssvr29.news.prodigy.net>
Source record: 67976

JimK2TL@gmail.com wrote:
> How about trying to locate the source of the noise?

The source of noise at my QTH is the 33 ft. ground wire
running down the pole in my front yard from the giant
old-as-Methuselah capacitor mounted there. It generates
S7 noise on 40m. Maybe an RF choke would work?
--
73, Cecil http://www.qsl.net/w5dxp

3231. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 20:09:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4wObf.16054$dO2.12920@newssvr29.news.prodigy.net>
Source record: 67977

Tam/WB2TT wrote:
> Only thing I can add is that it eats batteries, ...

I run mine off an external rechargable 12v YUASA battery.
--
73, Cecil http://www.qsl.net/w5dxp

3232. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 21:00:10 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <_dPbf.8637$Dk.2880@bignews5.bellsouth.net>
Source record: 67978

Thanks, Cecil. Guess that's what I'll do. I don't think there is any "graceful" way of going from ladderline to coax.

}}} Sounds like it is actually a UNUN. {{{

I THOUGHT the choke baluns are unbalanced to balanced, and will work OK for the purpose of feeding ladderline. Although they're electrically symmetrical (unbalanced rf goes in one end, and balanced rf comes out the other. Flip 'em around and it's the same, either way).

If they're not, I need to know it so I can go to another kind.

3233. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 21:29:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <NGPbf.16074$dO2.15408@newssvr29.news.prodigy.net>
Source record: 67980

RB wrote:
> }}} Sounds like it is actually a UNUN. {{{
>
> I THOUGHT the choke baluns are unbalanced to balanced, and will work OK for
> the purpose of feeding ladderline.

I was half joking. A choke can often function equally well
as a UNUN or a BALUN. A W2DU choke, for instance, doesn't
"know" whether it is in a balanced or unbalanced environment.
--
73, Cecil http://www.qsl.net/w5dxp

3234. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:32:46 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <46lvm150mg8kt9s377qhrfb18ct12esheo@4ax.com>
Source record: 67982

On Tue, 8 Nov 2005 13:51:06 -0800, "Michael" <ndcoder@srt.com> wrote:

>I get a lot of noise from my random wire antenna. It transmits very well but
>is very noisy in receive. My neighbor put up a 280 foot loop antenna which

Ok.

>he feeds with ladder line. He feeds the ladder line from a 4 to 1 balun to
>coax. The coax comes from a tuner. His setup performs very well on all bands
>down to 75 meters. I went over to his shack last night and listened to his
>receiver on 75. I was really impressed with the lack of noise. I can safely
>say the difference in noise was profound. He has this loop surrounding his

So, the noise is "profoundly" less (whatever that means), but what
about signals that you want to hear, and how does it perform
transmitting.

You see, a 30dB attenuator would profoundly reduce the noise.... and
the desired receive signals, and the tx signal, but it isn't
necessarily better.

You probably know the answers, you just didn't tell us.

It is often the case that the best antenna for transmission is the one
that makes the most noise where you want to be heard, and the best
antenna for receiving is the one that gives the best S/N ratio (not
necessarily the best S meter deflection) for stations from that place,
and they may not be the same antenna.

Owen
--

3235. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:35:45 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns970794941647Dspectrumhogstarbandn@207.106.93.175>
Source record: 67983

Cecil Moore <mycall@arrl.net> wrote in
news:FkObf.16049$dO2.15833@newssvr29.news.prodigy.net:

> Ed wrote:
>
>>>Got a Radio Works choke balun I'd like to use for feeding ladderline
>>>out of an unbalanced tuner.
>>>
>> I'm sure others here will correct me if I'm wrong, but I believe
>> that
>> what you want to do is a very bad idea. Baluns are not meant to
>> operate under the potential very high SWR conditions ...
>
> It depends on whether the very high SWR is on the ladder-line
> side or on the coax side. :-)

Well, he said "OUT of an unbalanced tuner" so I assume that's the
ladderline side.

Ed K7AAT

3236. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:39:33 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9707953941200spectrumhogstarbandn@207.106.93.175>
Source record: 67984

Cecil Moore <mycall@arrl.net> wrote in
news:NGPbf.16074$dO2.15408@newssvr29.news.prodigy.net:

> RB wrote:
>> }}} Sounds like it is actually a UNUN. {{{
>>
>> I THOUGHT the choke baluns are unbalanced to balanced, and will work
>> OK for the purpose of feeding ladderline.
>
> I was half joking. A choke can often function equally well
> as a UNUN or a BALUN. A W2DU choke, for instance, doesn't
> "know" whether it is in a balanced or unbalanced environment.

Guys, please help me here. You are talking about UNUNs and BALUNs.
A balanced tuner OUTPUT to ladderline is BALANCED TO BALANCED , isn't
it? Why the need for anything, there?

Ed K7AAT

3237. Re: How To Put Up An Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:42:18 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkol8a$qp8$1@engnntp2.cig.mot.com>
Source record: 67993

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:M_Uaf.43044$ty1.22897@bignews1.bellsouth.net...
> Oh - of COURSE its a false story - just a good funny one.
> We all know hams don't use buckets for their tools.
> It was on some ftp site in the early 90's I think... everyone knew it was
> just a joke - but you couldn't help but snicker as each paragraph
> introduced a new wrinkle and a new woe to the unlucky ham.
> It was written up like it was an explanation to his insurance company.
>
> "David G. Nagel" <nagel@core.com> wrote in message
> news:11mio1h6a2td18f@corp.supernews.com...
> > Roy Lewallen wrote:
> > > Hal Rosser wrote:
> > >
> > >> That reminds me of a story that used to circulate ....

> > Mythbusters looked into this myth and ircc they found it not only false
> > but impossible. I could be wrong though.
> >
> > Dave WD9BDZ
> >

The best part of the (obvious) joke was that it WAS possible as stated, if not probable. That is to say, the physics of the story I saw was indeed correct (assuming he brought up that many tools- which is probably the fatal flaw in the screen play). I think the one I saw had him use an old wooden barrel (easier to break apart upon contact w/ the ground)

73, Steve, K.9/D'C;I

3238. Re: Lunch Tomorrow

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:45:04 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkoldgqru1@engnntp2.cig.mot.com>
Source record: 67994

Ahhh! Brain full.

How well I know.

73, Steve, K9DCI

"Henry" <wa0goz@arrl.net> wrote in message
news:dkk32401dbi@enews4.newsguy.com...
> Dave wrote:
> > "Henry" <wa0goz@arrl.net> wrote in message
> > news:dkjjsu031g4@enews3.newsguy.com...
> >
> >>Be here before 12:00 for lunch.
> >>
> >>CU then.
> >>
> >>Love
> >>
> >>Dad
> >
> >
> > what you having??
> >
> >
> ROTFL I was in this newsgroup when I thought I was in my email
> program and I sent the message to my son. I called him later and he
> said he didn't get the email. I'll try to be more carefull, but it
> sure is funny to me. :-)
>
> Henry

3239. Re: My antennas are on QRZ's cover

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:46:20 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkolfs$qt4$1@engnntp2.cig.mot.com>
Source record: 67992

Rats RO K

73, Steve, K,9.D;C'I

"Tom Ring" <news0002@taring.org> wrote in message
news:436d7c07$0$3756$39cecf19@news.twtelecom.net...
> Tom Ring wrote:
>
> > The 4 over 4 above it is rotarable.
>
> And I don't type well.
>

3240. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:50:09 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <436fd96a_3@newsfeed.slurp.net>
Source record: 67985

"Dave Pitzer" wrote
> ... Is there any place I can find polar graphs of commercial
> broadcast station's antenna patterns?

_____

Dave,

Here http://www.radio-locator.com/ is a link to a website with calculated coverage areas/contours for US AM broadcast stations. The contours are based on their licensed radiation patterns (directional or not), AND ground conductivities for the geographic regions concerned.

The polar radiation patterns of these stations most probably don't look much like these plots, because of the heavy influence that ground conductivity has on received field strength along the various azimuth bearings.

Even the real coverage contours of AM broadcast stations using omni antennas usually are anything but omni, due to the effects of varying ground conductivities around their various azimuth sectors and ranges.

Have fun.

RF

3241. Re: how to check balun

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:51:28 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dkolpg$r6c$1@engnntp2.cig.mot.com>
Source record: 67991

Roy forgot to mention / stress that a balun is designed for specific impedances. If it is a common 1:1 balun, then it is probably designed for 50 ohms. They are designed for feeding a 1/2 wave dipole or similar antenna, not widely different (from 50) impedances.

Steve, K,9.D;C'I

"RB" <rbig@bellsouth.nospam.net> wrote in message news:_lybf.2649$kd.2028@bignews4.bellsouth.net...
> Wow! Good info, Roy. Thanks. That should get me going, at least.
>
>

3242. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:52:29 UTC
From: Dan Richardson <>
Message-ID: <lgmvm15lrsbm6q8d8n1kh48tu7da40j6f4@4ax.com>
Source record: 67986

On Mon, 07 Nov 2005 22:39:33 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

> Guys, please help me here. You are talking about UNUNs and BALUNs.
>A balanced tuner OUTPUT to ladderline is BALANCED TO BALANCED , isn't
>it? Why the need for anything, there?
>
>
> Ed K7AAT

Ed,

His original posting said:
"Got a Radio Works choke balun I'd like to use for feeding ladderline
out of an *unbalanced* tuner."

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

3243. Re: What Would You Do??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 22:57:02 UTC
From: jgboyles@aol.com
Message-ID: <1131404222.191962.53430@g14g2000cwa.googlegroups.com>
Source record: 67987

Bill wrote:
> Years ago I cleared a 200 foot path in among some hard woods....Needed to
> practice my high irons....
>
> But Now...lets put up a monster antenna.. For high bands 17 - 20 meters.
>
> In this path I've got two 120 foot towers in line with Europe. The towers
> are 500 feet apart......Its pretty well open on the sides
>
> I can easily run a cable between them and then
> hang what...???
>
> Give me your dream antenna...or your best shot!!!
>
> Thanks,
>
> Bill
> http://www.kc4pe.com/amateurshack.htm

Hi Bill, I would go with a wire Log Periodic. There was a series of
articles in Ham Radio Mag. back in the 70's and 80's describing logs
that were made of wire hung from towers. Logs have some gain, and are
frequency independent to an extent. You could construct a Log that
would cover 20-15 meters, and have some (3db?) gain. May 1974 issue of
Ham Radio had such an antenna.
Other options are the various end-fire and broad-side arrays, you
could get more gain, but gain-bandwidth would be limited.
I wish I had your problem:-)
Gary N4AST

3244. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:08:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mvnjbidllgk21@corp.supernews.com>
Source record: 67988

Jim Kelley wrote:
>
> Hi Richard,
>
> I think what you're seeing is the 3-D interference pattern generated by
> your sources. I'm not sure that really tells us very much about the
> antennas themselves. You'd need to surround each of the antennas with a
> uniform field in order to compare them. By uniform, I mean the field
> intensity toward the antenna is the same in any direction.

How about polarization?

Roy Lewallen, W7EL

3245. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:17:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <6dnvm1p0vl55qceve3dca1ueqpq7tbn0cp@4ax.com>
Source record: 67989

On Mon, 7 Nov 2005 12:07:30 -0600, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Got a Radio Works choke balun I'd like to use for feeding ladderline out of
>an unbalanced tuner.
>
>The balun has coax fittings on each end.

I think from the sound of your description you have one of their
"isolaters" that has a coax socket on both ends.

These things are very neat when used to "choke" currents on the outer
of coax.

>
>Ladderline doesn't adapt well to coax interfaces.
>
>What's the best way to put ladderline to my balun coax fitting?
>
>I can kluge a PL-259 plug onto the ladderline.
>
>I guess I could also stick one side of the ladderline in the center hole of
>the chassis coac fitting, and clamp the other side to the threaded part of
>the chassis fitting.

That doesn't sound reliable, the "stick one side of the ladderline in
the center hole" bit, that is. How would you maintain reliable centre
contact. (BTW, you probably already know that 4mm banana plugs fit
into SO-239 neatly.)

What is your problem, is it the "inelegance" of soldering the openwire
ends to the coax plug, or are you concerned about impedance
discontinuity at presumably HF / 6m?

I am sure that you could look around and find adapters, I can think of
a few ways myself, but...

If it is not in the weather, I would just solder the ends of the open
wire to a PL-257 and screw in on. You could sleeve the end going to
the centre conductor to improve its flashover voltage if that is
likely to be an issue. (BTW, taking the earth side wire down inside
the PL259 and bringing it out the braid hole will give you quite a
neat finish.)

Owen
--

3246. Re: Passive battery switch RFID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:23:36 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11mvofvo8s0j0ae@corp.supernews.com>
Source record: 67990

Passive rfid transponders can be made with greater range than you have experienced. For instance the Illinois Toll Roads have implemented what they call IPASS. This is a RFID that operates at highway distances and speeds. With IPASS you place the rfid in the center of your car/truck window and when you go through a toll plaza the reader induces an electrical current in the transponder. This current activates the coded transmitter which is read by the plaza receiving equipment. Each and every transponder that passes the reader is interrogated. The induction field is constant and activates the transponder as it is passed.

There is another device called SPEED PASS that is used by Mobile Oil CO. The transponder is contained in a small plastic capsule shaped package. I took one apart and examined the contents. The transponder is contained inside a glass capsule and consists of a small (1/8") diameter coil that is connected to a small pc board with an IC and some other components. The entire thing is about 1/2" long. Range for this device is very short since it is associated with you credit card.

I don't know how big an inductor is needed to provide enough power to transmit over the ranges you are looking at but some simple experimentation should answer this. Basically what the inductor is half of a transformer. The field generator is the other half. The power generated can be used to activate a transistor switch to provide power to the transmitter.

For more information it would be best to do a google search on RFID and see what else is available.

Good luck

Dave Nagel

fh03 wrote:
> David, can you please elaborate on how this can be done? And how it can
> be implemented so that the proper signal activates the unit.
>
> I'm sort of a newbie in this field and would appreciate it if you could
> explain how this can be done in greater detail.
>
> Thanks again.
>
> David G. Nagel Wrote:
>
>>Use the passive receiver to power a transistor switch to activate the
>>transmitter. You should be able to induce enough power in the unit to
>>switch some kind of transistor switch connecting the battery to the

>>second stage of the unit. You would have to be careful that only the
>>proper signal activates the unit though.
>>
>>
>>Dave WD9BDZ
>>
>>
>>
>>fh03 wrote:
>>
>>thanks for your input guys. I havent been able to come online due to
>>power outages caused by hurricane wilma.
>>
>>anyway. the reed switch mentioned would work, but the distance is the
>>issue. I currently have an rfid reader and passive tag, but they too
>>work only within a few inches. What I need is for the device to be
>>activated within 5 feet of the receiver and from my understanding a
>>reed switch cant do that.
>>
>>I know electronic toll payment systems seem to conserve battery, and
>>thats what i need. Bascially I want to have a battery in the unit,
>>but
>>I dont want the battery to be connected until we're in that range.
>>The
>>reason passive devices dont work is because even though the antenna
>>can
>>provide an induced current, without a battery the tag doesnt have
>>enough
>>power to be able to transmit over say a few inches, let alone five
>>feet.
>>So we need battery in the transmitter. The user only carries a
>>transmitter, so it doenst know when it is within range. I have a
>>microcontroller that will transmit an ID as soon as it is powered up,
>>but I dont want it to be on at all times, and I dont want a switch.
>>I'll look into the "Hall Effect" now and see what its about.
>>
>>Thanks again guys, keep it coming.
>>
>>
>
>
>

3247. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:26:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <XoRbf.9597$BZ5.3376@newssvr13.news.prodigy.com>
Source record: 67995

Ed wrote:
> Cecil Moore <mycall@arrl.net> wrote:
>>It depends on whether the very high SWR is on the ladder-line
>>side or on the coax side. :-)
>
> Well, he said "OUT of an unbalanced tuner" so I assume that's the
> ladderline side.

Yes, and with a reasonable limit, the SWR on the ladder-line
doesn't matter. IMO, 25:1 is no problem for ladder-line.
--
73, Cecil http://www.qsl.net/w5dxp

3248. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:31:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%sRbf.9599$BZ5.7386@newssvr13.news.prodigy.com>
Source record: 67996

Michael wrote:
> Has anybody else had this experience with loops?

Only the past three generations. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3249. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:40:58 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkoom7$567$1@news.service.uci.edu>
Source record: 67999

Roy Lewallen wrote:

> Jim Kelley wrote:
>
>>
>> Hi Richard,
>>
>> I think what you're seeing is the 3-D interference pattern generated
>> by your sources. I'm not sure that really tells us very much about
>> the antennas themselves. You'd need to surround each of the antennas
>> with a uniform field in order to compare them. By uniform, I mean the
>> field intensity toward the antenna is the same in any direction.
>
>
> How about polarization?
>
> Roy Lewallen, W7EL

Hi Roy,

Your guess is better than mine. I think in order not to bias the results, the solution would have to be that each source is randomly polarized, i.e. the Sun redshifted down into the radio spectrum - coming from every direction. The ring of point sources is an interesting approach. One could use rings at some number of elevation angles, both above and below the plane of the antennas. The greater the elevation angle, the smaller the diameter of the ring such that the radial distance to the antenna is kept constant. But I imgaine you have ideas of your own in this regard.

73, ac6xg

3250. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:43:36 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <HCRbf.45698$ty1.39736@bignews1.bellsouth.net>
Source record: 67997

Ah yes grasshopper - zee loops - zay are good.
The loop helps reduce noise since its dc-shorted and no static buildup,
and your socks won't stick to it. ;-)
but it takes more trees to hold it up

"Michael" <ndcoder@srt.com> wrote in message
news:11mvjfic11rdq9f@corp.supernews.com...
> I get a lot of noise from my random wire antenna. It transmits very well
but
> is very noisy in receive. My neighbor put up a 280 foot loop antenna which
> he feeds with ladder line. He feeds the ladder line from a 4 to 1 balun to
> coax. The coax comes from a tuner. His setup performs very well on all
bands
> down to 75 meters. I went over to his shack last night and listened to his
> receiver on 75. I was really impressed with the lack of noise. I can
safely
> say the difference in noise was profound. He has this loop surrounding his
> house at a 30 ft. height. It is arranged in a square.
>
> Has anybody else had this experience with loops? It looks like I have room
> to put up a triangular loop. Will this work as well?
>
> Can I use the same tuner I have now and just feed a coax into a balun. Or,
> should I put the balun in the tuner and come straight out with ladder
line?
> There is a lot of room in this tuner. It is an old remote controlled tuner
> surplused from a ship.
>
>

3251. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-07 23:46:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11mvpqjme2l7ge0@corp.supernews.com>
Source record: 67998

Tam/WB2TT wrote:
>
> I am happy with mine. Only thing I can add is that it eats batteries, and my
> unit does not like to work below 13 Volts. They do sell a tunable bandpass
> filter for the lower frequencies. I tried a high pass filter - don't bother,
> it messes up the phase.

If you do want to measure antenna impedance with something like the MFJ and have trouble (as I do) with local broadcasting and other RF, I recommend using a "half wave" filter. This type of filter has reasonable out-of-band attenuation characteristics and doesn't disturb the impedance measurement too much. (Over a limited frequency range it mimics a half wavelength of transmission line.) The impedance disturbance will be the least when the filter is designed to approximately match the measured impedance.

It's simply two cascaded pi sections, with each element having the same value of X. For example, a lowpass looks like this:

```
---.---L---.---L---.---
| | |
C 2C C
| | |
----.-------.-------.---
```

For example, a filter with Z0 = 50 ohms (one which mimics a half wavelength of 50 ohm line) has XL = XC = 50. One designed for 7 MHz would have L = 1.14 uH, C = 455 pF. You can wind the coils on small type 2 or 6 powdered iron cores, and use the closest standard value (e.g., 470 pF) for the capacitors. This filter will cause little impedance disturbance at 7 MHz and, for load impedances near 50 ohms, at lower frequencies also. A highpass looks like this:

```
---.---C---.---C---.---
| | |
L L/2 L
| | |
----.-------.-------.---
```

Again, XL = XC = the filter Z0. Make filters according to your particular measurement needs. You can check the amount of disturbance the filter causes by making a known impedance out of a resistor and capacitor or inductor which is about equal to the measured impedance, and measuring it with and without the filter.

If you can read German, there's a marvelous book describing how to make a wide variety of measurements with an antenna analyzer, with tricks, tips, and details. It's _HF-Messungen mit einem aktiven Stehwellen-Mei¿½gerï¿½t_ by Gerd Janzen, DF6SJ. It's available directly from him at Hochvogelstraï¿½e 29, D-87435 Kempten, Germany.

Roy Lewallen, W7EL

3252. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 00:07:14 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9fqvm19qvhkoo9eamga4qbh2ubhf8h7ko4@4ax.com>
Source record: 68000

On Mon, 07 Nov 2005 23:26:47 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Yes, and with a reasonable limit, the SWR on the ladder-line
>doesn't matter. IMO, 25:1 is no problem for ladder-line.

There must be a host of unstated assumptions behind that statement to make it valid in a limited scenario.

Using TLDETAILS to work up a load of 16+j0 on 100m of Wireman551 ladder-line at 30MHz, the predicted VSWR varies between 25 at the load end and a very modest 6.5 at the generator end, yet the predicted loss is around 6dB. Some might not find that an acceptable loss.

Owen
--

3253. Re: My antennas are on QRZ's cover

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 00:22:57 UTC
From: Falky foo <falkyfoo@bonksbcglobal.net>
Message-ID: <BdSbf.10285$D13.6329@newssvr11.news.prodigy.com>
Source record: 68001

nice photo actually

"Tom Ring" <news0002@taring.org> wrote in message
news:436d752d$0$32205$39cecf19@news.twtelecom.net...
> I wouldn't have voted for them, but my friend, Geoff KC0FXY, did take a
> nice shot. And I guess QRZ thought so too.
>
> https://secure.qrz.com/store/qrz_cd.html
>
> So my 6 meter beams are on the 2005-2006 cover.
>
> To explain the shot, the lower beam is a fixed 3 element which is meant
> to cover the Minneapolis/St Paul metro area.
>
> The 4 over 4 above it is rotarable.
>
> tom
> K0TAR

3254. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 01:16:13 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11mvv2542t28l88@corp.supernews.com>
Source record: 68003

See comment below.
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:10021-43698257-110@storefull-3251.bay.webtv.net...
> Jim Kelley, AC6XG wrote:
<snip>

To a first approximation
> though, we assume that all the parallel rays intercepted by a dish are
> focused on the radiator and aid, adding in-phase. Received carrier power
> excites the antenna and this causes a minimum of 50% of this power to be
> re-radiated if the antenna is perfectly matched to to the receiver load.
> The antenna`s radiation resistance in this case becomes the Thevenin`s
> source resistance for the receiver load on the antenna. This requires a
> conjugate match between the antenna and receiver input impedances.

----- ... not if one wishes to maximize SNR. Best SNR requires a (slight)
mismatch. Of course, this issue is only significant if SNR is due to the
noise figure (NF) of the receiver and the SNR is small.
73 Mac N8TT

3255. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 01:29:46 UTC
From: Crazy George <munschNO@SPAMattglobal.net>
Message-ID: <43700313_1@news1.prserv.net>
Source record: 68004

Reg:

I don't have an accurate number for the entire country, but here in the local area, there is one clear channel station with a single radiator, a half dozen two tower arrays, two 3 tower arrays, five 4 tower arrays that I can recall off the top of my head. If you had asked a dozen years ago, I could have been more accurate. I don't think we have any 5 or 6 radiator arrays here locally, if so, I don't remember them. If my math is correct, that is a 50-50 split, so maybe half have more than 2 towers.

--
Crazy George
W5VPQ
My real address is my ham call <at>ARRL.NET The ATTGlobal is a SPAM trap.
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dkmvf3onq1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Crazy George" wrote
>> I'm afraid you're way behind the practice on this one. In the US,
> there are
>> many 4, 5 and 6 tower arrays providing as many nulls to protect
> co-channel
> stations.
>
> ================================
>
> What proportion of US MF broadcasting stations have antennas
> consisting of more than two towers ?
> ----
> Reg.
>
>

3256. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 02:09:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cNTbf.25224$6e1.2698@newssvr14.news.prodigy.com>
Source record: 68005

Owen Duffy wrote:
> Using TLDETAILS to work up a load of 16+j0 on 100m of Wireman551
> ladder-line at 30MHz, the predicted VSWR varies between 25 at the load
> end and a very modest 6.5 at the generator end, yet the predicted loss
> is around 6dB. Some might not find that an acceptable loss.

If 100m (325 feet) of ladder-line results in 6dB loss, then a more
realistic 75 feet of ladder-line will result in about 1.4 dB of loss.
That's only 1/4 of an S-unit on the highest frequency HF band and less
on the other bands. That's perfectly acceptable to me and virtually
indistinguishable on an S-meter.

If you have to resort to 325 feet of ladder-line on 30 MHz to try
to prove me wrong, I feel really sorry for you. Why didn't you choose
a million feet to prove me even more wrong? It appears that you are
lurking there in the down under outback just waiting for me to forget
to cross an 'i' or dot a 't'.
--
73, Cecil http://www.qsl.net/w5dxp

3257. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 02:19:47 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9707BA9066B39spectrumhogstarbandn@207.106.93.175>
Source record: 68006

>>
>> Well, he said "OUT of an unbalanced tuner" so I assume that's the
>> ladderline side.

> Yes, and with a reasonable limit, the SWR on the ladder-line
> doesn't matter. IMO, 25:1 is no problem for ladder-line.

Correct, a high SWR is not an issue for ladderline, but the guy was wanting to stick an apparently 50 ohm coax balun right there in between his balanced tuner output and that ladder line. I would think a high SWR, with some TX power, in that device might not do it much good.

Ed

3258. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 02:27:22 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns9707BBD916979spectrumhogstarbandn@207.106.93.175>
Source record: 68007

>> Guys, please help me here. You are talking about UNUNs and BALUNs.
>>
>>A balanced tuner OUTPUT to ladderline is BALANCED TO BALANCED ,
>>isn't it? Why the need for anything, there?

> His original posting said:
> "Got a Radio Works choke balun I'd like to use for feeding ladderline
> out of an *unbalanced* tuner."

My sincere appologies to this thread group. I read that original post twice and still missed that the tuner was unbalanced output. Makes a lot more sense, now.

Ed K7AAT

3259. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 03:07:10 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ec40n1ho0ea9po3ukcapist0li0lvli5ag@4ax.com>
Source record: 68008

On Tue, 08 Nov 2005 02:09:13 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Using TLDETAILS to work up a load of 16+j0 on 100m of Wireman551
>> ladder-line at 30MHz, the predicted VSWR varies between 25 at the load
>> end and a very modest 6.5 at the generator end, yet the predicted loss
>> is around 6dB. Some might not find that an acceptable loss.
>
>If 100m (325 feet) of ladder-line results in 6dB loss, then a more
>realistic 75 feet of ladder-line will result in about 1.4 dB of loss.

Close, I make it 2.2dB. (The loss per meter is not a constant figure
in this situation.) Agreed, even that is not a large amount, and
indeed might be quite acceptable in many / most cases.

>That's only 1/4 of an S-unit on the highest frequency HF band and less
>on the other bands. That's perfectly acceptable to me and virtually
>indistinguishable on an S-meter.
>
>If you have to resort to 325 feet of ladder-line on 30 MHz to try
>to prove me wrong, I feel really sorry for you. Why didn't you choose
>a million feet to prove me even more wrong? It appears that you are
>lurking there in the down under outback just waiting for me to forget
>to cross an 'i' or dot a 't'.

Cecil, people often employ long runs of open wire feed on HF (ie up to
30MHz), and it just shows that on longer runs, high VSWR can be an
issue for ladder line.

I often hear Rules of Thumb (ROT) like VSWR < 3 is OK for coax and <
25 if fine for open wire, or the converse... but something is lost in
the brief expression of those ROTs, and it seems more and more the
knowledge base of our hobby is the ROTs, rather than the underlying
principles. There is an appeal to the new experts in our hobby to
pickup the ROTs and parrot them... perhaps we need to take the time to
qualify what we say where learners are listening.

Owen
--

3260. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 03:16:08 UTC
From: Dan Richardson <>
Message-ID: <pq50n1pula2b3d81gbnpjbj8acn387njco@4ax.com>
Source record: 68009

On Tue, 08 Nov 2005 03:07:10 GMT, Owen Duffy <owen@no.where> wrote:

>I often hear Rules of Thumb (ROT) like VSWR < 3 is OK for coax and <
>25 if fine for open wire, or the converse... but something is lost in
>the brief expression of those ROTs, and it seems more and more the
>knowledge base of our hobby is the ROTs, rather than the underlying
>principles. There is an appeal to the new experts in our hobby to
>pickup the ROTs and parrot them... perhaps we need to take the time to
>qualify what we say where learners are listening.
>
>Owen

Owen,

The problem is that knowing the SWR is not worth much without knowing
the frequency and the spec's of the transmission line.

For example an SWR ratio of 10:1 using a hundred feet of RG-217 on
the 80-meter band is only about 1 dB loss. On 10-meters its a
different story.

I still subscribe to the belief that judging antenna performance based
solely upon SWR is like judging how well a automobile will perform
based solely on what the air pressure is in the tires.

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

3261. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 03:21:35 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <998ee$43701a24$97d56a33$13066@ALLTEL.NET>
Source record: 68010

How many hams find a feedline length of 100 Meters acceptable? Lets look at a more realistic length of 100 feet and the loss is less than 2 dB at 30 Mhz. The loss is much less on the lower bands. With all due respect, your example sucks!

"Owen Duffy" <owen@no.where> wrote in message news:9fqvm19qvhkoo9eamga4qbh2ubhf8h7ko4@4ax.com...
> On Mon, 07 Nov 2005 23:26:47 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>
> >Yes, and with a reasonable limit, the SWR on the ladder-line
> >doesn't matter. IMO, 25:1 is no problem for ladder-line.
>
> There must be a host of unstated assumptions behind that statement to
> make it valid in a limited scenario.
>
> Using TLDETAILS to work up a load of 16+j0 on 100m of Wireman551
> ladder-line at 30MHz, the predicted VSWR varies between 25 at the load
> end and a very modest 6.5 at the generator end, yet the predicted loss
> is around 6dB. Some might not find that an acceptable loss.
>
> Owen
> --

3262. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 03:40:33 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <gf70n1dj8h40s07366p8vh6aoplfdnu7if@4ax.com>
Source record: 68011

On Mon, 07 Nov 2005 19:16:08 -0800, Dan Richardson <> wrote:

>On Tue, 08 Nov 2005 03:07:10 GMT, Owen Duffy <owen@no.where> wrote:
>
>>I often hear Rules of Thumb (ROT) like VSWR < 3 is OK for coax and <
>>25 if fine for open wire, or the converse... but something is lost in
>>the brief expression of those ROTs, and it seems more and more the
>>knowledge base of our hobby is the ROTs, rather than the underlying
>>principles. There is an appeal to the new experts in our hobby to
>>pickup the ROTs and parrot them... perhaps we need to take the time to
>>qualify what we say where learners are listening.
>>
>>Owen
>
>Owen,
>
>The problem is that knowing the SWR is not worth much without knowing
>the frequency and the spec's of the transmission line.

... including the length. I agree fully.

Owen
--

3263. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 03:48:23 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <nn70n1tcbbkthprk11dcv1hesqrpl7cksi@4ax.com>
Source record: 68012

On Mon, 7 Nov 2005 22:21:35 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>How many hams find a feedline length of 100 Meters acceptable? Lets look at
>a more realistic length of 100 feet and the loss is less than 2 dB at 30
>Mhz. The loss is much less on the lower bands. With all due respect, your
>example sucks!

BTW, I make your example 2.7dB, not less than 2dB. (Perhaps you labour
under the misaprehension that loss per unit length is a constant in
this situation).

Fred, what you have highlighted is the unstated assumption of some
limit on length. You know enough to choose a length so that the ROT is
true, but does a learner soaking this up know as much?

Owen
--

3264. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 04:09:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkp8dboen1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 68013

Dan Richardson wrote -
> The problem is that knowing the SWR is not worth much without
knowing
> the frequency and the spec's of the transmission line.
>
==========

The REAL problem is that very few people know the SWR on the
transmission line because the SWR meter doesn't measure it.

Aren't you are fooling yourselves?

Reg.

3265. Add WARC Bands - 12M and 17M to Hustler 4-BTV, 5-BTV, or 6-BTV

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 04:22:27 UTC
From: Charlie <charlie@play.com>
Message-ID: <11n0a0lhlf0vh02@news.supernews.com>
Source record: 68014
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.misc

Takes about 1 hour assembly time and costs less then $15. Takes legal limit and requires no permanent modifications to original Hustler BTV antennas. SWR on 12M and 17M < 1.2:1 This mod adds a 12M and a 17M vertical radiator on each side of the existing Hustler antenna. Minor retuning of original bands required after 12M and 17M are tuned. It's EASY!

This works a treat and is a great way to get an extra 2 bands from an existing antenna structure.

1. http://www.ad5th.com/5-BTV-WARC.html

--

Charlie-AD5TH

3266. for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 04:35:42 UTC
From: KB7WFV <KB7WFV.1y684h@news.radiobanter.com>
Message-ID: <KB7WFV.1y684h@news.radiobanter.com>
Source record: 67926

TH-5MM for sale
$300.00 like new with manual

for sale
40 feet tower (2 20 feet)
a litter smaller then a 25-g
75.00
thanks dennis kb7wfv

--
KB7WFV

3267. Re: for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 04:37:23 UTC
From: KB7WFV <KB7WFV.1y684i@news.radiobanter.com>
Message-ID: <KB7WFV.1y684i@news.radiobanter.com>
Source record: 67927

KB7WFV Wrote:
> TH-5MM for sale
> $300.00 like new with manual
>
> for sale
> 40 feet tower (2 20 feet)
> a litter smaller then a 25-g
> 75.00
> thanks dennis kb7wfv
wt1078@wavecable.com

--
KB7WFV

3268. Re: 135' flattop

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 04:39:27 UTC
From: mcalhoun@ksu.edu
Message-ID: <dkpa5v$3j8@unix1.cc.ksu.edu>
Source record: 68015

>I copied this out of the MFJ-269 antenna analyzer manual:
>"Resonance at the feedpoint only repeats when a mismatched feedline is
>....[snip]....

Unless I missed it, thta quote from the MFJ manual didn't actually say
"The subject is a single-frequency (or even single-band) antenna". For
a multi-frequency/band antenna, isn't ANY feedline ALWAYS going to be
mis-matched on at least SOME of those frequencies/bands?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

3269. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 04:58:41 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ELGdnUFk9rOOre3eRVn-iQ@comcast.com>
Source record: 68016

"Cecil Moore" <mycall@arrl.net> wrote in message
news:4wObf.16054$dO2.12920@newssvr29.news.prodigy.net...
> Tam/WB2TT wrote:
>> Only thing I can add is that it eats batteries, ...
>
> I run mine off an external rechargable 12v YUASA battery.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Never thought of that. I actually have a 12V, 7 AH Yuasa sitting on the file cabinet. I would just have to keep it well charged.
Tam

3270. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 05:20:36 UTC
From: Dan Richardson <>
Message-ID: <7cd0n1ttl60ql0gr5vfe41klhp05uvr8nh@4ax.com>
Source record: 68017

On Tue, 08 Nov 2005 03:40:33 GMT, Owen Duffy <owen@no.where> wrote:

>On Mon, 07 Nov 2005 19:16:08 -0800, Dan Richardson <> wrote:
>
>>On Tue, 08 Nov 2005 03:07:10 GMT, Owen Duffy <owen@no.where> wrote:
>>
>>>I often hear Rules of Thumb (ROT) like VSWR < 3 is OK for coax and <
>>>25 if fine for open wire, or the converse... but something is lost in
>>>the brief expression of those ROTs, and it seems more and more the
>>>knowledge base of our hobby is the ROTs, rather than the underlying
>>>principles. There is an appeal to the new experts in our hobby to
>>>pickup the ROTs and parrot them... perhaps we need to take the time to
>>>qualify what we say where learners are listening.
>>>
>>>Owen
>>
>>Owen,
>>
>>The problem is that knowing the SWR is not worth much without knowing
>>the frequency and the spec's of the transmission line.
>
>... including the length. I agree fully.
>
>Owen

Yep, I forgot to add that.

Thanks

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

3271. Re: What Would You Do??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 05:27:30 UTC
From: mcalhoun@ksu.edu
Message-ID: <dkpd02$90b@unix1.cc.ksu.edu>
Source record: 68018

>>Years ago I cleared a 200 foot path in among some hard woods....
>>In this path I've got two 120 foot towers in line with Europe. The
>>towers are 500 feet apart......Its pretty well open on the sides
>>....[snip]....

If those two towers are truly IN LINE with Europe, won't 'most any
antenna you hang BETWEEN them (i.e., from one tower to another, like
a Sterba or several half-squares) radiate 90 degrees AWAY from Europe?

To make an antenna that radiates TOWARD Europe, you could make a "wire
beam" by using a rope or wire strung between the towers as a "boom",
create "elements" by throwing several essentially-half-wavelength-long
inverted-V's ACROSS that "boom" spaced some fraction of a wavelength
apart, use the "element" farthest from Europe as a "reflector", feed
the next one, and use the others as directors. Ergo sum, a humongous
beam "in line" with Europe!
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

3272. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 05:45:32 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <0smdnetLAMKSpu3eRVn-pw@comcast.com>
Source record: 68019

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11mvpqjme2l7ge0@corp.supernews.com...
> Tam/WB2TT wrote:
>>
>> I am happy with mine. Only thing I can add is that it eats batteries, and
>> my unit does not like to work below 13 Volts. They do sell a tunable
>> bandpass filter for the lower frequencies. I tried a high pass filter -
>> don't bother, it messes up the phase.
>
> If you do want to measure antenna impedance with something like the MFJ
> and have trouble (as I do) with local broadcasting and other RF, I
> recommend using a "half wave" filter. This type of filter has reasonable
> out-of-band attenuation characteristics and doesn't disturb the impedance
> measurement too much. (Over a limited frequency range it mimics a half
> wavelength of transmission line.) The impedance disturbance will be the
> least when the filter is designed to approximately match the measured
> impedance.
>
> It's simply two cascaded pi sections, with each element having the same
> value of X. For example, a lowpass looks like this:
>
> ---.---L---.---L---.---
> | | |
> C 2C C
> | | |
> ----.-------.-------.---
>
> For example, a filter with Z0 = 50 ohms (one which mimics a half
> wavelength of 50 ohm line) has XL = XC = 50. One designed for 7 MHz would
> have L = 1.14 uH, C = 455 pF. You can wind the coils on small type 2 or 6
> powdered iron cores, and use the closest standard value (e.g., 470 pF) for
> the capacitors. This filter will cause little impedance disturbance at 7
> MHz and, for load impedances near 50 ohms, at lower frequencies also. A
> highpass looks like this:
>
> ---.---C---.---C---.---
> | | |
> L L/2 L
> | | |
> ----.-------.-------.---
>
> Again, XL = XC = the filter Z0. Make filters according to your particular
> measurement needs. You can check the amount of disturbance the filter

> causes by making a known impedance out of a resistor and capacitor or
> inductor which is about equal to the measured impedance, and measuring it
> with and without the filter.
>
> If you can read German, there's a marvelous book describing how to make a
> wide variety of measurements with an antenna analyzer, with tricks, tips,
> and details. It's _HF-Messungen mit einem aktiven Stehwellen-Me�ger�t_ by
> Gerd Janzen, DF6SJ. It's available directly from him at Hochvogelstra�e
> 29, D-87435 Kempten, Germany.
>
> Roy Lewallen, W7EL

I will have to try your configuration. I did C - L - C/2 - L -C, with
C=1000PF, L=2.2uH. According to SWCad, the gain is flat above 2 MHz, but
there is 120 degrees phase shift at 4 MHz, relative to the phase at 100 MHz.

Tam/WB2TT

3273. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 06:11:59 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <PkXbf.5681$Y61.4903@newssvr33.news.prodigy.com>
Source record: 68020

Michael,
I've had sort of the same experience with a loop antenna. I'd say
it was probably about the same for most everyone.
As far as where to put the balun and how to feed the thing, I
honestly don't think it's going to make much difference. What would be
easiest and 'best' for you? That's how I'd do it...
'Doc

PS - Are loops the 'end-all of antennas? Huh, good question, and the
answer is probably, no. But, I've had good luck with mine...

3274. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 07:03:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h9j0n1pim7q2v69eae92ensna97kmd54tk@4ax.com>
Source record: 68021

On Mon, 07 Nov 2005 11:16:08 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>I think what you're seeing is the 3-D interference pattern generated by
>your sources.

Hi Jim,

3D in two-space? No.

> I'm not sure that really tells us very much about the antennas themselves.
> You'd need to surround each of the antennas with a
>uniform field in order to compare them. By uniform, I mean the field
>intensity toward the antenna is the same in any direction.

The problem has symmetry on its side, additional source add to the
dipole in equal measure to the yagi. Adding more power does not
create the missing power already lost.

73's
Richard Clark, KB7QHC

3275. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 07:04:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dej0n11f8si33c9lc6lk2ehr8hfpe1h24p@4ax.com>
Source record: 68022

On Mon, 07 Nov 2005 15:08:26 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>How about polarization?

Hi Roy,

How about it?

73's
Richard Clark, KB7QHC

3276. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 07:08:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gjj0n1lcaggs69qj4ftli16g6dbeqhs5gf@4ax.com>
Source record: 68023

On Mon, 07 Nov 2005 15:40:58 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>One could use rings at some number of elevation angles

Hi Jim,

This would increase the tedium factor considerably. Simply rotate the
ring.

73's
Richard Clark, KB7QHC

3277. new babe to RFID design want to ask some question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 07:11:27 UTC
From: nospam <nospam1nospam@gmail.com>
Message-ID: <1131433887.459126.289100@o13g2000cwo.googlegroups.com>
Source record: 68024

I am a software engineer and I know nothing about hardware
design....

Recently I am asked to collect some information about the components
of
RFID reader that can read ISO-18000-6 (Type A) tag. The tag works in
the UHF
band (860-930 MHz). I have some question but I don't have any friend
that
have RFID experience. I would really appreciate if you could kindly
answer
the questions below.....

1) The operational principle of this kind of tag is "backscatter
coupling". However, I am not sure how the reader distinguish the
forward
signal and the backscattered signal, which of the same frequency. I
read
some information from internet and someone mentioned about the
"directional
coupler". Is directional coupler really used in a typical UHF RFID
reader?
If so, could you kindly recommend a brand and the model number of
directional coupler that can be used in RFID reader?

2) The reader is supposed to be used in a cashier of shop. The range
of
distance of the reader to the tag is about 30cm. Do you have some
typical
power values that the reader need to send and the power of the
backscattered
signal? I need this kind of figure because I was ask to choose the
transceiver IC and I wonder if the power is enough. Do you have any
recommendation of transceiver IC?

3) About the antenna. I found some paper mention about 4 phased
array, which is good for sending RF signal in one direction. Have
anyone used it before? If yes, where can I found it? Any brand name or
model number recommend?

4) Do you have any reference design / paper on the design of RFID
reader?

Thanks in advance.

NOSPAM

3278. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 07:17:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hoj0n1da2dn32317bitn8hjbhd65fk8a7u@4ax.com>
Source record: 68025

On Mon, 07 Nov 2005 15:40:58 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

> the solution would have to be that each source is randomly polarized

Hi Jim,

I have worked further with the "random" applications. "Random" is no simple thing as published data has already revealed and my additions, editions, and refinements have not bought much more traction. Putting enough decimal places into the "random" valuations would be mind-numbingly brutal; and as interesting as it would be, it would be a solution in search of a different problem.

If "random" put oil on troubled waters and reduced the 1.4dB discrepancy to say 0.4dB, it says nothing of the original 1dB. And all these machinations to fill the sky with sources so they can look over the reflector of the yagi.... If you pour more water into the bucket, you will eventually fill it, but it won't tell you why the bucket leaks.

However, it is nice to see that the topic still has legs.

73's
Richard Clark, KB7QHC

3279. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 11:36:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11n13ejlg4b2o7b@corp.supernews.com>
Source record: 67928

Tam/WB2TT wrote:
>
> I will have to try your configuration. I did C - L - C/2 - L -C, with
> C=1000PF, L=2.2uH. According to SWCad, the gain is flat above 2 MHz, but
> there is 120 degrees phase shift at 4 MHz, relative to the phase at 100 MHz.

The center component should be 2C, or 2000 pF for your experiment, not C/2. The circuit is simply two pi networks in cascade, each having all component reactances equal to the "transmission line" Z0. Each pi section mimics a quarter wave transmission line.

Roy Lewallen, W7EL

3280. Naval connection? You qualify for RNARS membership!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 11:58:49 UTC
From: Mike <mike@my1biz.com>
Message-ID: <dkq3tp$t5v$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67929

Membership of the Royal Naval Amateur Radio Society (RNARS) is open to all who have an
interest in any facet of amateur radio and who are serving or who have served in the following:

Royal Navy
Royal Marines
Royal Naval Reserve
Royal Marine Reserve
Women's Royal Naval Service
Royal Naval Auxiliary Service
Royal Fleet Auxiliary
Merchant Navy
Sea Cadets Corps
Nautical Training Corps
MOD (Navy)
Commonwealth and Foreign Navies

NON-MEMBERS can purchase RNARS commodities.

Details and membership application form is available online at
http://www.rnars.org.uk

3281. Re: new babe to RFID design want to ask some question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 12:15:24 UTC
From: Dave <noone@nowhere.com>
Message-ID: <J7adnfQpwIF5C-3enZ2dnUVZ_tCdnZ2d@crocker.com>
Source record: 67930

first, as a software engineer you need to learn how to use google and other search engines. all the details you are asking about are out there... in excruciating detail in some cases. second, if you are doing software why don't you just go buy the hardware from someone who has already done all the design and testing and just use their system? or get a hardware engineer to do what they do best and figure out what your system requirements need? there are probably dozens of off the shelf rfid manufacturers out there, just pick the range and type of data you need and you should be able to find one that will give you just what you want.

"nospam" <nospam1nospam@gmail.com> wrote in message
news:1131433887.459126.289100@o13g2000cwo.googlegroups.com...
>I am a software engineer and I know nothing about hardware
> design....
>
> Recently I am asked to collect some information about the components
> of
> RFID reader that can read ISO-18000-6 (Type A) tag. The tag works in
> the UHF
> band (860-930 MHz). I have some question but I don't have any friend
> that
> have RFID experience. I would really appreciate if you could kindly
> answer
> the questions below.....
>
> 1) The operational principle of this kind of tag is "backscatter
> coupling". However, I am not sure how the reader distinguish the
> forward
> signal and the backscattered signal, which of the same frequency. I
> read
> some information from internet and someone mentioned about the
> "directional
> coupler". Is directional coupler really used in a typical UHF RFID
> reader?
> If so, could you kindly recommend a brand and the model number of
> directional coupler that can be used in RFID reader?
>
> 2) The reader is supposed to be used in a cashier of shop. The range
> of
> distance of the reader to the tag is about 30cm. Do you have some
> typical
> power values that the reader need to send and the power of the
> backscattered
> signal? I need this kind of figure because I was ask to choose the

> transceiver IC and I wonder if the power is enough. Do you have any
> recommendation of transceiver IC?
>
> 3) About the antenna. I found some paper mention about 4 phased
> array, which is good for sending RF signal in one direction. Have
> anyone used it before? If yes, where can I found it? Any brand name or
> model number recommend?
>
> 4) Do you have any reference design / paper on the design of RFID
> reader?
>
> Thanks in advance.
>
> NOSPAM
>

3282. Re: new babe to RFID design want to ask some question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 14:27:27 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <11n1de9tdtvm6c1@corp.supernews.com>
Source record: 67931

Just wondering ..

Dave wrote:

>why
>don't you just go buy the hardware from someone who has already done all the
>design and testing and just use their system? or get a hardware engineer to
>do what they do best and figure out what your system requirements need?
>there are probably dozens of off the shelf rfid manufacturers out there,
>just pick the range and type of data you need and you should be able to find
>one that will give you just what you want.
>
>

What RF hash level at the used frequency or frequencies can trash the
operational effectiveness of the currently 'of interest' RFID devices
and systems? A watt or two from how many feet away? How many more
watts from how much further away could ruin a perceived 'secure' technology?

Inquiring mind wants to know.

W5WQN

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

3283. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:09:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4d3cf.11958$q%.10105@newssvr12.news.prodigy.com>
Source record: 67932

Owen Duffy wrote:
>>It appears that you are
>>lurking there in the down under outback just waiting for me to forget
>>to cross an 'i' or dot a 't'.
>
> Cecil, people often employ long runs of open wire feed on HF (ie up to
> 30MHz), and it just shows that on longer runs, high VSWR can be an
> issue for ladder line.

Guess I should have put a smiley face on my above posting.
Did you miss the humor?
--
73, Cecil http://www.qsl.net/w5dxp

3284. Re: 1 Section 25G in DFW area

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:25:41 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <Pu3cf.61337$RG4.28712@fe05.lga>
Source record: 67933

I found one.

Tnx - W5GT
"W5GT" <w5gt@arrl.net> wrote in message
news:Lhpaf.55679$RG4.3204@fe05.lga...
> Found a section - thanks
>
> Dave - W5GT
>
> "W5GT" <w5gt@arrl.net> wrote in message
news:Fnr9f.7204$7s1.6016@fe04.lga...
> > I need one section of 25G in the Dallas/Ft Worth area. Please contact me
> at
> > w5gt@arrl.net.
> >
> > Thanks
> >
> > Dave - W5GT
> >
> >
>
>

3285. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:26:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkqg30pa1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67934

"Crazy George" wrote
> I don't have an accurate number for the entire country, but here in
the
> local area, there is one clear channel station with a single
radiator, a
> half dozen two tower arrays, two 3 tower arrays, five 4 tower arrays
that I
> can recall off the top of my head. If you had asked a dozen years
ago, I
> could have been more accurate. I don't think we have any 5 or 6
radiator
> arrays here locally, if so, I don't remember them. If my math is
correct,
> that is a 50-50 split, so maybe half have more than 2 towers.
>
==========

Thanks George,

I am amazed at the number of multi-tower MF antennas in the US. As you say, they are necessary to prevent co-channel interference, day and night, between a large number of broadcasters in the more densely populated regions of your vast country. (Antenna salesmen have had a field day.)

It is also interesting that the whole system is technically regulated by State and/or Central Government. It is not just a free-for-all for newcomers.

I imagine the revenue comes solely from advertisers. Which makes me wonder what percentage of program time is allocated to adverts. Are such matters also regulated? Are any broadcast stations State or City owned?

In this (UK) relatively densely populated country things settled down about 20 years ago. Few MF antennas have more than one tower (or masts as we call them). Although there is much broadcasting at MF for individual cities, most broadcasting takes place at FM VHF where 'capture effects' reduce interference from co-channel transmitters.

It may be of interest that the BBC, still the World's finest broadcasting system, including its overseas services, no longer owns any transmitting stations, Mrs Thatcher quietly sold them off to a private party. Do some Googles for who the eventual owners are?

Reg.

3286. Re: Mythbusters: The G5RV on 12m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:31:23 UTC
From: W5GT <w5gt@arrl.net>
Message-ID: <hx3cf.61345$RG4.35823@fe05.lga>
Source record: 67935

My G5RV works fine for me on 12M and 17M. Not a beam, but since it's only at 15', I'm happy. My IC756 does have a built in tuner, so I'm sure that helps.

W5GT

"Thierry" <-> wrote in message news:4356b635$1@news.vo.lu...
>
> "Cecil Moore" <mycall@arrl.net> wrote in message
> news:TsS4f.2685$BZ5.384@newssvr13.news.prodigy.com...
> > The myth: "Contrary to oft stated views, the Classic G5RV is not
> > an all band antenna, it: does not have acceptable feed performance
> > on any WARC bands;" Quoted from: http://www.vk1od.net/G5RV/
> >
> > 12m is a WARC band. The standard G5RV performs very well on 12m
> > band. Therefore, the above statement is a myth. (Hey, this silly
> > myth game is actually fun.) :-)
>
> I confirm. I used both G5RV and OCF for Dxing with as good results as on
the
> other bands.
>
> Thierry, ON4SKY
> http://www.astrosurf.org/lombry/
>
>
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
>
>

3287. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:33:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Ny3cf.11961$q%.4924@newssvr12.news.prodigy.com>
Source record: 67936

Owen Duffy wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>If 100m (325 feet) of ladder-line results in 6dB loss, then a more
>>realistic 75 feet of ladder-line will result in about 1.4 dB of loss.
>
> Close, I make it 2.2dB.

What matched line loss are you using? The wireman says that line
has about 0.2 dB of matched line loss per 100 ft at 30 MHz. According
to the chart in my ARRL Antenna Book, an SWR of 25:1 at the load
would cause about 1.5 dB loss in 75 feet.

>>... waiting for me to forget to cross an 'i' or dot a 't'.
>
> Cecil, people often employ long runs of open wire feed on HF ...

Did you miss the humor?
--
73, Cecil http://www.qsl.net/w5dxp

3288. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:39:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <SE3cf.11962$q%.608@newssvr12.news.prodigy.com>
Source record: 67937

Reg Edwards wrote:
> The REAL problem is that very few people know the SWR on the
> transmission line because the SWR meter doesn't measure it.
>
> Aren't you are fooling yourselves?

A host of us use EZNEC and other modeling programs, like
you publish, to estimate the SWR and therefore the losses.
--
73, Cecil http://www.qsl.net/w5dxp

3289. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:47:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <mM3cf.11964$q%.5405@newssvr12.news.prodigy.com>
Source record: 67938

Tam/WB2TT wrote:

> "Cecil Moore" <mycall@arrl.net> wrote:
>
>>Tam/WB2TT wrote:
>>>Only thing I can add is that it eats batteries, ...
>>
>>I run mine off an external rechargable 12v YUASA battery.
>
> Never thought of that. I actually have a 12V, 7 AH Yuasa sitting on the file
> cabinet. I would just have to keep it well charged.

I use a 2Ah NP2-12 with a molex connector double-sided taped to
the underside of the MFJ-259 and charge it with an Astron RS-20M.
The battery is smaller than the MFJ and about 3/4" thick.
--
73, Cecil http://www.qsl.net/w5dxp

3290. Re: Naval connection? You qualify for RNARS membership!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:53:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <WR3cf.11965$q%.9312@newssvr12.news.prodigy.com>
Source record: 67939

Mike wrote:
> Royal Navy

Does going down with the ship in a past life count?
--
73, Cecil http://www.qsl.net/w5dxp

3291. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 15:58:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dkqhua$2te$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67940

> Guess I should have put a smiley face on my above posting.
> Did you miss the humor?
==========

Cec, even as a foreigner I seldom miss your humor, smileys or not.

Thank heavens, on the Internet, the English and American lanuages are
drawing closely together. But I am still inclined to draw a
distinction beween Americans and USA citizens. They are different!

Reg.

3292. Re: Mythbusters: The G5RV on 12m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 16:04:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <a04cf.11966$q%.8538@newssvr12.news.prodigy.com>
Source record: 67941

W5GT wrote:
> My G5RV works fine for me on 12M and 17M. Not a beam, but since it's only at
> 15', I'm happy. My IC756 does have a built in tuner, so I'm sure that helps.

I had to increase the 450 ohm tuned section length on my G5RV
to 36 feet to obtain a low 50 ohm SWR (no tuner) on 17m.

EZNEC says the standard G5RV, with 1/2WL of 20m tuned section,
will present an impedance of about 38-j270 to the coax with
a resulting SWR of 40:1. That would be pretty lossy for 75 ft.
of RG8X, maybe even lossy enough to make your IC756 happy. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3293. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 16:18:26 UTC
From: Edwin Johnson <elj@jflight.elj.org>
Message-ID: <4370cfd2$0$1765$8b463f8a@news.nationwide.net>
Source record: 67942

On 2005-11-08, Michael <ndcoder@srt.com> wrote:

> Has anybody else had this experience with loops? It looks like I have room
> to put up a triangular loop. Will this work as well?
>
> Can I use the same tuner I have now and just feed a coax into a balun. Or,
> should I put the balun in the tuner and come straight out with ladder line?

Following Walt's (W2DU) ideas, I have a 259' horizontal delta (triangle) loop (two trees and a wooden pole) fed at almost middle of one side (convenience, not design) by 450 ohm ladder line. This is soldered directly to a ferrite bead choke balun (ala W2DU) which, via PL-259s and barrel connector, goes to a very short piece of 50 ohm coax (about 6') directly into the house to the unbalanced SO-239 input of my MFJ-941E. Works like a charm on all bands 80-10m, no RF in the room, and good signal reports.

...Edwin, KD5ZLB
--
_____
"Once you have flown, you will walk the earth with your
eyes turned skyward, for there you have been, there you
long to return."-- da Vinci ... www.shreve.net/~elj

3294. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 16:34:41 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <i72dnQZzhvKvTu3eRVn-oA@comcast.com>
Source record: 67943

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11n13ejlg4b2o7b@corp.supernews.com...
> Tam/WB2TT wrote:
>>
>> I will have to try your configuration. I did C - L - C/2 - L -C, with
>> C=1000PF, L=2.2uH. According to SWCad, the gain is flat above 2 MHz, but
>> there is 120 degrees phase shift at 4 MHz, relative to the phase at 100
>> MHz.
>
> The center component should be 2C, or 2000 pF for your experiment, not
> C/2. The circuit is simply two pi networks in cascade, each having all
> component reactances equal to the "transmission line" Z0. Each pi section
> mimics a quarter wave transmission line.
>
> Roy Lewallen, W7EL
>
Roy,
I wasn't too clear, but I have 2 T networks back/back. That makes the center cap C/2. I am going to run SWCad on the Pi configuration later, and see what that does.

Tam/WB2TT

3295. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 16:50:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <GH4cf.11976$q%.1605@newssvr12.news.prodigy.com>
Source record: 67944

Reg Edwards wrote:
> Thank heavens, on the Internet, the English and American lanuages are
> drawing closely together. But I am still inclined to draw a
> distinction beween Americans and USA citizens. They are different!

And Texans are even more so. Ours is the only state whose
flag is allowed to be flown at an equal height with the
US flag. (Some places around here fly the Texas flag an
inch or so higher than that damned Yankee flag. :-) Texas
was the only state having the legal right to seceed from
the USA during the Civil War. The last battle of the Civil
war was fought near Brownsville, TX and the South won.

Reg, I saw a program on "The Discovery Channel:
Ice Age Columbus: Who Were the First Americans?" It
said, based on the latest arrowhead and tool archaeological
evidence, that America was discovered by sea-going ice-age
Europeans 17,000 years before Columbus made his voyage. It
was asserted that some Native Americans still carry the
genetic markers donated by those early Europeans.
--
73, Cecil http://www.qsl.net/w5dxp

3296. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 16:54:57 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <-qOdnSqYL_qXR-3enZ2dnUVZ_sWdnZ2d@comcast.com>
Source record: 67945

Reg Edwards wrote:
>
SNIPPED
>
>
> I imagine the revenue comes solely from advertisers. Which makes me
> wonder what percentage of program time is allocated to adverts. Are
> such matters also regulated? Are any broadcast stations State or City
> owned?

$$$ from advertisers ... YEP!

Amount of advertising time is regulated. I can't state with any
authority, but it seems to be 15 to 20 minutes per hour.

Ownership is generally private. International propaganda, err news, may
be indirectly government controlled through a straw man corporation.
Certain public service stations, e.g. WWV, are government 'owned'.

An several additional non sequitor comments. In the USA, although we
claim FREE ENTERPRISE, it is a government influenced economy via
interest rates, international treaties, anti-trust regulations, etc.

Finally, the USA is succumbing to a creeping Socialism. This is contrary
to the words of John F Kennedy: "Ask NOT what your country can do for
you; ask what you can do for your country." Forty-five years after that
statement from President Kennedy a large portion of the population want
the government to do everything for them.

A Keag

>
> In this (UK) relatively densely populated country things settled down
> about 20 years ago. Few MF antennas have more than one tower (or masts
> as we call them). Although there is much broadcasting at MF for
> individual cities, most broadcasting takes place at FM VHF where
> 'capture effects' reduce interference from co-channel transmitters.
>
> It may be of interest that the BBC, still the World's finest
> broadcasting system, including its overseas services, no longer owns
> any transmitting stations, Mrs Thatcher quietly sold them off to a
> private party. Do some Googles for who the eventual owners are?
> ----
> Reg.
>
>

3297. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 17:03:11 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <wvqdnU0b5YBmRu3enZ2dnUVZ_sGdnZ2d@comcast.com>
Source record: 67946

Cecil Moore wrote:

> Reg Edwards wrote:
>
>> Thank heavens, on the Internet, the English and American lanuages are
>> drawing closely together. But I am still inclined to draw a
>> distinction beween Americans and USA citizens. They are different!
>
>
> And Texans are even more so.

SNIPPED: That great ICON of America, John Wayne of Blessed Memory,
asserted that the residents of Texas were TEXICANS! [Not Americans and
NOT citizens of USA]. How does this impact citizenship??

Cecil, you opened a bag of Texas Nightcrawlers [Bass bait worms] with
your Texas comment. :-)

AK

Ours is the only state whose
> flag is allowed to be flown at an equal height with the
> US flag. (Some places around here fly the Texas flag an
> inch or so higher than that damned Yankee flag. :-) Texas
> was the only state having the legal right to seceed from
> the USA during the Civil War. The last battle of the Civil
> war was fought near Brownsville, TX and the South won.
>
> Reg, I saw a program on "The Discovery Channel:
> Ice Age Columbus: Who Were the First Americans?" It
> said, based on the latest arrowhead and tool archaeological
> evidence, that America was discovered by sea-going ice-age
> Europeans 17,000 years before Columbus made his voyage. It
> was asserted that some Native Americans still carry the
> genetic markers donated by those early Europeans.

3298. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 17:18:44 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <d7n1n1lcs4tnqk62kuepn5p4stbpu8neu8@4ax.com>
Source record: 67947

On Tue, 08 Nov 2005 12:03:11 -0500, Amos Keag <A.K01@comcast.net>
wrote:

>Cecil Moore wrote:
>
>> Reg Edwards wrote:
>>
>>> Thank heavens, on the Internet, the English and American lanuages are
>>> drawing closely together. But I am still inclined to draw a
>>> distinction beween Americans and USA citizens. They are different!
>>
>>
>> And Texans are even more so.
>
>SNIPPED: That great ICON of America, John Wayne of Blessed Memory,
>asserted that the residents of Texas were TEXICANS! [Not Americans and
>NOT citizens of USA]. How does this impact citizenship??

I believe Texas also used to be its own independent country, the
Republic of Texas. Sam Houston was president. We were called Texians.
(And John Wayne was not a Texian, Texican, Texan or any other
deriviative.)

Bob
k5qwg

>
>Cecil, you opened a bag of Texas Nightcrawlers [Bass bait worms] with
>your Texas comment. :-)
>
>AK
>
> Ours is the only state whose
>> flag is allowed to be flown at an equal height with the
>> US flag. (Some places around here fly the Texas flag an
>> inch or so higher than that damned Yankee flag. :-) Texas
>> was the only state having the legal right to seceed from
>> the USA during the Civil War. The last battle of the Civil
>> war was fought near Brownsville, TX and the South won.
>>
>> Reg, I saw a program on "The Discovery Channel:
>> Ice Age Columbus: Who Were the First Americans?" It
>> said, based on the latest arrowhead and tool archaeological
>> evidence, that America was discovered by sea-going ice-age
>> Europeans 17,000 years before Columbus made his voyage. It

>> was asserted that some Native Americans still carry the
>> genetic markers donated by those early Europeans.

3299. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 18:04:08 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ysadncZZI_O3de3enZ2dnUVZ_vmdnZ2d@comcast.com>
Source record: 67948

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:i72dnQZzhvKvTu3eRVn-oA@comcast.com...
>
Meanwhile, I measured the impedance of a Drake 100W dummy load with and
without the HPF. All readings without the HPF are within Drake spec.

FREQ NO HPF With HPF

4 Mhz 47j2 33j13
7MHz 47j2 55j3
14MHz 47j1 50j7
28MHz 48j2 47j3
50MHz 49j2 54j11
144MHz 53j11 74j36

Everything was connected with UHF adapters, and no coax was used. Ignore the
VHF readings,. as the filter was not built that carefully. Capacitors are
mica (actual values 1000, 560, 1000), and inductors appear to be 68-2
(2.2uH).

If I get a chance later today, I will rewire it into the Pi configuration
with the same inductors.

Tam/WB2TT

3300. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 18:19:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4%5cf.11986$q%.6396@newssvr12.news.prodigy.com>
Source record: 67949

Amos Keag wrote:
> Finally, the USA is succumbing to a creeping Socialism. This is contrary
> to the words of John F Kennedy: "Ask NOT what your country can do for
> you; ask what you can do for your country."

Methinks you completely missed Kennedy's meaning. Here's Ayn
Rand's take on that statement: "Ask NOT what your country can
do for you ...", translation: Stop expecting the federal government
to preserve and protect your individual constitutional rights;
"... ask what you can do for your country.", translation: give up
your constitutional rights, including your life, liberty, and
possessions, in order to benefit the welfare state.
--
73, Cecil http://www.qsl.net/w5dxp

3301. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 18:23:46 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c5afe$4370ed97$97d56a33$18270@ALLTEL.NET>
Source record: 67950

I choose a ladderline length to always feed the antenna at a current node.

"Owen Duffy" <owen@no.where> wrote in message
news:nn70n1tcbbkthprk11dcv1hesqrpl7cksi@4ax.com...
> On Mon, 7 Nov 2005 22:21:35 -0500, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >How many hams find a feedline length of 100 Meters acceptable? Lets look
at
> >a more realistic length of 100 feet and the loss is less than 2 dB at 30
> >Mhz. The loss is much less on the lower bands. With all due respect, your
> >example sucks!
>
> BTW, I make your example 2.7dB, not less than 2dB. (Perhaps you labour
> under the misaprehension that loss per unit length is a constant in
> this situation).
>
> Fred, what you have highlighted is the unstated assumption of some
> limit on length. You know enough to choose a length so that the ROT is
> true, but does a learner soaking this up know as much?
>
> Owen
> --

3302. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 18:32:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Aa6cf.11988$q%.10506@newssvr12.news.prodigy.com>
Source record: 67951

Amos Keag wrote:
> SNIPPED: That great ICON of America, John Wayne of Blessed Memory,
> asserted that the residents of Texas were TEXICANS! [Not Americans and
> NOT citizens of USA]. How does this impact citizenship??

Some Texans never wanted to join the United States and it
was a close vote back when Texas was an independent country.
Sam Houston was probably the deciding factor. If Texas had
not joined the US, we probably would still have plenty of $60
a gallon oil. (Inside intel as opposed to Intel Inside(R)):
I once worked for Schlumberger and Texas is definitely NOT
out of oil, i.e. Lots of oil is being held in reserve in
cases of arrested development as it is in Florida,
California, and Alaska.)
--
73, Cecil http://www.qsl.net/w5dxp

3303. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 18:39:18 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <qh6cf.11990$q%.1672@newssvr12.news.prodigy.com>
Source record: 67952

Fred W4JLE wrote:
> I choose a ladderline length to always feed the antenna at a current node.

And because a current node is guaranteed to occur at least
every 1/2WL, an HF feedline need never be longer than 164
feet, Owen's 100 meter feedline notwithstanding. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3304. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 19:08:00 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkqt2d$q1i$1@news.service.uci.edu>
Source record: 67953

Richard Clark wrote:

> On Mon, 07 Nov 2005 11:16:08 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>I think what you're seeing is the 3-D interference pattern generated by
>>your sources.
>
>
> Hi Jim,
>
> 3D in two-space? No.

It was you who claimed to have modeled the antenna in three-space, was
it not? Either way, in three-space or two, you have an interference
pattern. That is the point.

>>I'm not sure that really tells us very much about the antennas themselves.
>>You'd need to surround each of the antennas with a
>>uniform field in order to compare them. By uniform, I mean the field
>>intensity toward the antenna is the same in any direction.
>
>
> The problem has symmetry on its side, additional source add to the
> dipole in equal measure to the yagi. Adding more power does not
> create the missing power already lost.

It would be silly to expect it to. How much power should you expect to
measure with your instruments positioned in an interference null? This
is the nature of your "leaky bucket".

73, ac6xg

3305. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 19:15:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%O6cf.17150$dO2.8208@newssvr29.news.prodigy.net>
Source record: 67954

Jim Kelley wrote:

> Richard Clark wrote:
>> 3D in two-space? No.
>
> It was you who claimed to have modeled the antenna in three-space, was
> it not?

Actually, if time appeared in the equations as in 2*pi*f*t,
then it would be 3Dspace+1Dtime = 4D, no?
--
73, Cecil http://www.qsl.net/w5dxp

3306. VHF Circularly Polarized Antenna, for local use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 19:27:15 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11n1v0jt9uov88@corp.supernews.com>
Source record: 67956

I am planning how to set up my VHF/UHF station and I need some help.

You can orient a VHF antenna horizontally for CW/SSB work or you could orient that same antenna vertically for local FM use.

What if I am new to VHF/UHF and I want to do both. Could you get a circularly polarized antenna, with both horizontal and vertical elements and use it for both types? I don't want to buy two of the same antenna, only to have one horizontal and one vertical.

What is your advice?

Rod KI7CQ

3307. Re: VHF Circularly Polarized Antenna, for local use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 20:07:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Fz7cf.12003$q%.11582@newssvr12.news.prodigy.com>
Source record: 67957

Rod Maupin wrote:
> What if I am new to VHF/UHF and I want to do both. Could you get a
> circularly polarized antenna, with both horizontal and vertical elements and
> use it for both types? I don't want to buy two of the same antenna, only to
> have one horizontal and one vertical.

Mount your beam antenna at 45 degrees to the vertical.
You can work both and only lose half an S-unit.
--
73, Cecil http://www.qsl.net/w5dxp

3308. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 20:11:07 UTC
From: richardharrison@webtv.net
Message-ID: <23142-4371065B-1088@storefull-3258.bay.webtv.net>
Source record: 67959

Reg, G4FGQ wrote:
"It is also interesting that the whole system is technically regulated by State and/or Central Government."

In the beginning, there was no regulation. There were only wireless experimenters. Marconi invented the antenna which made the signal go far. Marconi`s antenna may have been seen as an elevated capactor plate. When the transmitter and receiver were each equipped with a plate, you had a coupling capacitor with the earth for a return path. The capacitor carries displacement current while the earth moves electrons.. Then, Marconi discovered the capacitor leads worked well enough without the plates, so plates were omitted.

Marconi was soon using wireless for ship to shore communications. It was essential to safety of life at sea. When the Titanic sank on April 15, 1912, it had a Marconi operator aboard. The world was immediately aware of radio. Inept radio communications during the loss of the Titanic prompted the U.S. Congress to pass the Radio Act of 1912, which expanded on the Wireless Ship Act of 1910 which required all seafaring vessels to maintain 24-hour radio watch and keep contact with nearby ships and coastal radio stations.

All radio communications were in code until Reginald Fessenden invented wireless telephony in 1906. In the early wireless days a lidtener had to understand code to make sense of wireless.

The Radio Act of 1912 assigned three-letter and four-letter codes (call-letters) to radio stations and limited broadcasting to 340 meters. This jammed the signals. From the beginning, the U.S. Federal Government declared sole jurisdiction over radio as the waves don`t stop at state lines and must involve international cooperation. It`s the "Interstate Commerce Regulation Power" of the Federal Government.

In 1920, KDKA in Pittsburgh, a Westinghouse station, transmitted the first commercial radio broadcast.

In 1922, the U.S. Commerce Department allowed powerful stations to use 400 meters, as long as they only broadcast music.

In 1925, A,C. Nielsen began reporting audience shares to advertisers,

In 1925, the first soap opera (The Smith Family) was broadcast.

In 1926, RCA, General Electric, and Westinghouse established The National Broadcasting Company (NBC). NBC operated two networks of stations (Red & Blue).

In 1929, William S. Paley founded The Columbia Broadcasting System (CBS).

In 1931, there were 40,000 U.S. TV sets, including 4,000 in New York City.

In 1933, Edwin Armstrong introduced Frequency Modulation.

The Communications Act of 1934 created the Federal Communicationsd Commission which regulates broadcasting.

In 1936, The British Broadcasting Corporation (BBC) debuted the world`s first television service with three hours of programming a day.

In 1937, Edgar Bergen and Charlie MCCarthy debuted on NBC TV.

We live in interesting times.

Advertising pays for broadcasting in the U.S. except for some public support of non-commercial or almost non-commercial stations.

Program time devoted to advertising on commercial stations was limited by the FCC to just a few minutes per hour before Carter became president. He started the deregulation process which has now run amok. Commercial announcements were the topic of "Saturday Night Live". Satirically, they entertain.

Mrs. Thatcher may have sold the BBC`s distribution facilities, but since BBC has done so well programming, I hope the production facilities are still in the hands of those responsible and that they continue and grow their product.

Who bought the BBC`s transmitters depends on how big the bargains were. If a windfall was readily available, I suspect the Queen, her relatives and allies may have been the buyers. Like Russia, I suppose, except with more care that the buyers seem not to be profiteers.

My daughter lives in London and pays her tax to support the BBC. She now owns a 99-year lease on her flat in Westminster. Only leases are available. The right people are the ownwers and they aren`t selling. Her married name is Edwards too, but her husband is an American. They are both lawyers.

Best regards, Richard harrison, KB5WZI

3309. Re: VHF Circularly Polarized Antenna, for local use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 20:15:31 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11n21r2apvbds06@corp.supernews.com>
Source record: 67958

Thanks Cecil. That's great advice.

Problem solved.

Rod KI7CQ

3310. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 21:30:28 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <8452n1degk9a850g91ph5gsd2ad8tdejei@4ax.com>
Source record: 67960

On Tue, 08 Nov 2005 15:33:01 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>
>> Cecil Moore <mycall@arrl.net> wrote:
>>>If 100m (325 feet) of ladder-line results in 6dB loss, then a more
>>>realistic 75 feet of ladder-line will result in about 1.4 dB of loss.
>>
>> Close, I make it 2.2dB.
>
>What matched line loss are you using? The wireman says that line
>has about 0.2 dB of matched line loss per 100 ft at 30 MHz. According
>to the chart in my ARRL Antenna Book, an SWR of 25:1 at the load
>would cause about 1.5 dB loss in 75 feet.

I am using Wes's characterisation of Wireman 551. Dan's TLDETAILS prog or my online calculator (http://www.vk1od.net/tl/tllce.php) both use (slightly different) models derived from Wes's published measurements.

I don't have the ARRL Antenna Book with me at the moment, but I suspect it is not based on the same Matched Line Loss model, and does not estimate loss from the actual reflection coefficients but from an "average SWR" model which gives an averaged loss per unit length that doesn't take account of the fact that loss is usually highest in the region of current maxima.

My calculator produces a figure of 2.2 dB for your example. I haven't rechecked Dan's this morning, but it is close.

Grab Dan's calculator or mine and try it out. Dan's is really neat and a stand-alone Windows app, my online calc has less graphics, doesn't display (or even calculate SWR), knows about more transmission lines, and only needs a browser to access it. I use them both.

In my 100m of W551 with a 16+j0 load at 30MHz, the loss in one metre of line nearest the load is over 4%, the good news is that since 75% of the transmitter power is already lost, the weighted effect of that 4.3% is nearer 1% of tx output.

>>>... waiting for me to forget to cross an 'i' or dot a 't'.

Of course I don't, otherwise I would have mentioned ...!

>Did you miss the humor?

Must have.

73
Owen
--

3311. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 21:32:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11n26bm98889n34@corp.supernews.com>
Source record: 67961

Tam/WB2TT wrote:
>
> Roy,
> I wasn't too clear, but I have 2 T networks back/back. That makes the center
> cap C/2. I am going to run SWCad on the Pi configuration later, and see what
> that does.

If you've cascaded two sections, you have two 1000 pF capacitors in
parallel at the center. That makes a total value of 2000 pF at that point.

Roy Lewallen, W7EL

3312. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 21:41:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11n26sbptngij0f@corp.supernews.com>
Source record: 67962

Tam/WB2TT wrote:
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
> news:i72dnQZzhvKvTu3eRVn-oA@comcast.com...
>
> Meanwhile, I measured the impedance of a Drake 100W dummy load with and
> without the HPF. All readings without the HPF are within Drake spec.
>
> FREQ NO HPF With HPF
>
> 4 Mhz 47j2 33j13
> 7MHz 47j2 55j3
> 14MHz 47j1 50j7
> 28MHz 48j2 47j3
> 50MHz 49j2 54j11
> 144MHz 53j11 74j36
>
> Everything was connected with UHF adapters, and no coax was used. Ignore the
> VHF readings,. as the filter was not built that carefully. Capacitors are
> mica (actual values 1000, 560, 1000), and inductors appear to be 68-2
> (2.2uH).
>
> If I get a chance later today, I will rewire it into the Pi configuration
> with the same inductors.

That's about what I'd expect. The increasing X with frequency is consistent with a small amount of series stray inductance which is unavoidable in the physical construction. It can be minimized, of course, by careful construction.

A typical homebrew HF filter will begin becoming poor at VHF and above due to series self inductance of the capacitors and shunt self capacitance of the inductors, plus other effects. Component selection and layout can help a lot, but it might be necessary to cascade a VHF/UHF filter with the HF filter if very wideband rejection is necessary. A network analyzer or spectrum analyzer with tracking generator or noise generator are invaluable in solving those problems. Of course, the more stuff you put in the path, the more you're likely to disturb the measurement.

Roy Lewallen, W7EL

3313. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 21:45:11 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1131486311.743546.89160@f14g2000cwb.googlegroups.com>
Source record: 67963

Michael.
Why not try a folded dipole made from 300 ohm TV twin lead? Cut it for the band you are interested in. A tuner or a balun to 52 ohm coax to match your rig will be necessary. I was impressed with the lack of noise pickup from the one I put up a couple of years ago. Cut for 75 meters. My home and antenna are just a hundred feet or so from a power line with 3 sets of high voltage lines and sometimes they are very noisy on a regular dipole, but not the folded dipole.

Paul, KD7HB

3314. Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 21:51:06 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11mvjfic11rdq9f@corp.supernews.com>
Source record: 67981

I get a lot of noise from my random wire antenna. It transmits very well but is very noisy in receive. My neighbor put up a 280 foot loop antenna which he feeds with ladder line. He feeds the ladder line from a 4 to 1 balun to coax. The coax comes from a tuner. His setup performs very well on all bands down to 75 meters. I went over to his shack last night and listened to his receiver on 75. I was really impressed with the lack of noise. I can safely say the difference in noise was profound. He has this loop surrounding his house at a 30 ft. height. It is arranged in a square.

Has anybody else had this experience with loops? It looks like I have room to put up a triangular loop. Will this work as well?

Can I use the same tuner I have now and just feed a coax into a balun. Or, should I put the balun in the tuner and come straight out with ladder line? There is a lot of room in this tuner. It is an old remote controlled tuner surplused from a ship.

3315. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 22:17:49 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <zKadnW1X8MQCvuzenZ2dnUVZ_v6dnZ2d@comcast.com>
Source record: 67964

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11n26bm98889n34@corp.supernews.com...
> Tam/WB2TT wrote:
>>
>> Roy,
>> I wasn't too clear, but I have 2 T networks back/back. That makes the
>> center cap C/2. I am going to run SWCad on the Pi configuration later,
>> and see what that does.
>
> If you've cascaded two sections, you have two 1000 pF capacitors in
> parallel at the center. That makes a total value of 2000 pF at that point.
>
> Roy Lewallen, W7EL

It's a high pass filter to reject the AM broadcast band. So, the two 1000 PF
caps are in series. Am I missing something?

Tam

3316. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:08:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uaa2n19v87ck14r7hmv891a0pa10cp4s18@4ax.com>
Source record: 67965

On Tue, 8 Nov 2005 14:11:07 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>All radio communications were in code until Reginald Fessenden invented
>wireless telephony in 1906. In the early wireless days a lidtener had to
>understand code to make sense of wireless.
>
Hi Richard,

Oddly enough, just before a Nanotechnology seminar, I was recently browsing:

"The Radio Amateur's Handbook
A Complete, Authentic and Informative
Work on Wireless Telegraphy and Telephony"

by A. Frederick Collins
Inventor of the Wireless Telephone, 1899

To William Marconi
Inventor of the Wireless Telegraph

"The wireless telephone was invented by the author
of this book at Narberth, Penn., in 1899, and his first
experiments the human voice was transmitted to a
distance of three blocks."

Awarded Gold Medal for same, Alaskan Yukon Pacific Exposition [now the campus of the University of Washington from which I have just returned from minutes ago], 1909.

...

"After Marconi had shown the world how to telegraph without
connecting wires it would seem , on first thought, to be an easy
matter to telephone without wires, but not so, for the electric
spark sets up damped and periodic oscillations and these cannot be
used for transmitting speech. Instead, the oscillations must be
of constant amplitude and continuous. That a direct current arc
light transforms a part of its energy into electric oscillations
was shown by Firth and Rogers, or England, in 1893.

"The author was the first to connect an arc lamp with an
aerial and a ground, and then to use a microphone transmitter
to modulate the sustained oscillations so set up. The receiving
apparatus consisted of a variable contact, known as a pill box
detector, which Sir Oliver Lodge had devised, and to this was

connected an Ericsson telephone receiver, then the most sensitive made. A later improvement for setting up sustained oscillations was the author's rotating oscillation arc."

This volume is available at Project Gutenberg as an e-book. Collins goes on to describe the "boys" who monitored shipping transmissions and often joined in:

"boys began to get great fun out of listening in to what the ship and shore stations were sending and, further, they began to do a little sending on their own account. These youngsters, who caused the professional operators many a pang, were the first wireless amateurs, and among them experts were developed who are the foremost in the practice of the art today."

It should be noted that "hackers" of a decade ago now fill much the same description, and have been similarly elevated.

73's
Richard Clark, KB7QHC

3317. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:09:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3facf.10465$D13.4942@newssvr11.news.prodigy.com>
Source record: 67966

Owen Duffy wrote:
> In my 100m of W551 with a 16+j0 load at 30MHz, the loss in one metre
> of line nearest the load is over 4%, the good news is that since 75%
> of the transmitter power is already lost, the weighted effect of that
> 4.3% is nearer 1% of tx output.

What the heck is one "metre"? Netscape says that is misspelled and
probably should be corrected to "metro". Why aren't you guys on
the English system?

If the loss in each meter is 4%, wouldn't the loss in 100 meters
be 400%? What am I missing?
--
73, Cecil http://www.qsl.net/w5dxp

3318. Re: VHF Circularly Polarized Antenna, for local use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:15:59 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <dcc2n1lleoa32d4mb1rm07oiejcvi1tbsa@4ax.com>
Source record: 67967

That works pretty good until the other guy is also at 45 to the world
and 90 degrees to you!

John Ferrell W8CCW

On Tue, 08 Nov 2005 20:07:01 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Rod Maupin wrote:
>> What if I am new to VHF/UHF and I want to do both. Could you get a
>> circularly polarized antenna, with both horizontal and vertical elements and
>> use it for both types? I don't want to buy two of the same antenna, only to
>> have one horizontal and one vertical.
>
>Mount your beam antenna at 45 degrees to the vertical.
>You can work both and only lose half an S-unit.

3319. Question about free space loss ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:19:09 UTC
From: dougmc@frenzy.com
Message-ID: <Nnacf.82574$GQ.4637@tornado.texas.rr.com>
Source record: 67968

I've got what's probably a pretty basic question about free space loss. I suspect I already know the answer, but I'd like to verify it.

The general formula for free space loss is given as --

36.6 + 20LogD + 20LogF, where D is the distance in miles and F is the frequency in MHz.

Obviously the units don't matter so much -- if you were to change the units, you'd just change the 36.6 value to something else. No problem.

The distance component is obvious -- the power is spreading out.

But what's the frequency component about? Why would increasing the frequency cause less power to be radiated?

My guess is that the frequency factor is _strictly_ something to take into account the effective area/aperature of the receiving antenna, which gets smaller as the frequency increases?

As a more real-world example, if you had a 10 foot diameter satellite dish, aimed directly at a satellite broadcasting (in all directions -- let's assume an isotropic antenna there) 10 watts at 2 GHz, it would receive (ignoring any losses due to the atmosphere) the same power from the satellite if the satellite was broadcasting 10 watts at 200 GHz?

(Our 10 foot dish is most definately not an isotropic antenna.)

As a reference, I'm looking at http://people.deas.harvard.edu/~jones/es151/prop_models/propagation.htm and I'm just verifying my conclusions ...

To use the knowledge I think I've learned to solve the problem I'm trying to figure out, if you've got something that transmits a certain amount of data per second at 50 MHz to a receiver that's 1 mile away, and you wanted to switch to a system that works at 5 GHz but uses the same bandwidth, blindly applying the FSL formula tells you that you'd need 40 dB more power, 10,000 times as much.

(Let's assume that both antennas are both 1/2 wavelength dipoles of the appropriate length for both 50 MHz and 5 GHz -- not isotropic, but relatively close. My frequencies are arbitrary here, chosen just to have a nice ratio of 100.)

But really, since the antenna receives less energy (due to it's smaller size, and it's intercepting less of the signal), the background noise received by it will be similarly reduced (let's also

assume that the background noise intensity is the same at the two frequencies) and so it's just a matter of using a more sensitive receiver, at least until you get to the point where the background noise isn't the limiting factor, and instead the limiting factor is the noise generated by the receiver itself? That assuming all my assumptions are correct (and there's a lot of them, I know) there's little need to increase the transmitted power at all -- just increase the gain in the amplifier in the receiver?

Am I missing something?

AD5RH

--
Doug McLaren, dougmc@frenzy.com One dollar, one vote.

3320. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:21:13 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <MIGdnS_j09vFqOzenZ2dnUVZ_v2dnZ2d@comcast.com>
Source record: 67970

Cecil Moore wrote:

> Amos Keag wrote:
>
>> Finally, the USA is succumbing to a creeping Socialism. This is
>> contrary to the words of John F Kennedy: "Ask NOT what your country
>> can do for you; ask what you can do for your country."
>
>
> Methinks you completely missed Kennedy's meaning. Here's Ayn
> Rand's take on that statement: "Ask NOT what your country can
> do for you ...", translation: Stop expecting the federal government
> to preserve and protect your individual constitutional rights;
> "... ask what you can do for your country.", translation: give up
> your constitutional rights, including your life, liberty, and
> possessions, in order to benefit the welfare state.

YEP!!! Socialism.

3321. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:28:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u0c2n1tlsre9dn0301dhqr5njk2que8ej6@4ax.com>
Source record: 67969

On Tue, 08 Nov 2005 11:08:00 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

Hi Jim,

>Either way, in three-space or two, you have an interference
>pattern. That is the point.

The point being what? The observation of the pattern is simply that,
an observation. That a pattern exists is also hardly a revolutionary
concept. That it is the product of many sources does not preclude the
results as physics allows a wave to be viewed as a continuum of
sources along its length.

>> The problem has symmetry on its side, additional source add to the
>> dipole in equal measure to the yagi. Adding more power does not
>> create the missing power already lost.
>
>It would be silly to expect it to. How much power should you expect to
>measure with your instruments positioned in an interference null? This
>is the nature of your "leaky bucket".

When two designs inhabit the same null, as you put it (which is a
mistaken attribution because there are regions with two orders
magnitude less power resolved by the same designs), and one exhibits
more response than the other (regardless of its subsequent
repositioning and that was performed to the degree of 1/80th wave
increments); then it stands to reason one design is inferior to the
other in the capture of a continuum of radiation encompassing them.

This is all displayed in the data offered.

The yagi is that inferior design. This leaky bucket is not fixed by
placing it outside of the "null" (ironically it was very near in a
peak); hence an interference pattern is immaterial to the loss of
power as both designs suffer the same pattern - and equally I might
point out, if other arguments are consistently applied that equal
powers should be exhibited.

73's
Richard Clark, KB7QHC

3322. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:29:39 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <DsOdnb0Y7OzFquzeRVn-oQ@comcast.com>
Source record: 67971

Cecil Moore wrote:

SNIPPED
>

> I once worked for Schlumberger and Texas is definitely NOT
> out of oil, i.e. Lots of oil is being held in reserve in
> cases of arrested development as it is in Florida,
> California, and Alaska.)

Some day the Near East will figure out that USA long term policy is to devoid the Near East of oil. After that, the USA reserves in California, Oklahoma, Florida, and Alaska [Wildlife Refuge] will put the USA in a dominant and controlling position in the world economic situation.

"Use Everyone's, Save Ours!!"

AK

3323. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-08 23:34:45 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <jcydnSPeVqwNpezenZ2dnUVZ_tydnZ2d@comcast.com>
Source record: 67972

Cecil Moore wrote:

> Owen Duffy wrote:
>
>> In my 100m of W551 with a 16+j0 load at 30MHz, the loss in one metre
>> of line nearest the load is over 4%, the good news is that since 75%
>> of the transmitter power is already lost, the weighted effect of that
>> 4.3% is nearer 1% of tx output.
>
>
> What the heck is one "metre"? Netscape says that is misspelled and
> probably should be corrected to "metro". Why aren't you guys on
> the English system?
>
> If the loss in each meter is 4%, wouldn't the loss in 100 meters
> be 400%? What am I missing?

C'mon Cecil, you know it's an exponential decay.

I just started reading this thread. Is the loss in a 'per meter' or 'per wavelength'? In the olden days, we quoted loss as Nepers per wavelength. When did it change to 'percent per meter'?

AK

3324. Re: VHF Circularly Polarized Antenna, for local use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 00:04:35 UTC
From: dplatt@radagast.org
Message-ID: <11n2f8j2l93mq8f@corp.supernews.com>
Source record: 67973

>That works pretty good until the other guy is also at 45 to the world
>and 90 degrees to you!

... or is using a standard horizontal antenna, but happens to be
located in the plane of your antenna. In this situation, he will
"see" only the component of your antenna's radiation pattern - he'll
be in a deep null for any horizontal radiation and may not hear you at
all.

Building an antenna which is omnidirectional, and which also has
substantially equal horizontally- and vertically-polarized signal
components over the full omni donut, is possible (commercial FM
services do it) but seems to be tricky, expensive, and prone to being
narrow-band.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3325. Re: VHF Circularly Polarized Antenna, for local use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 00:08:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <P5bcf.14494$Zv5.6281@newssvr25.news.prodigy.net>
Source record: 67974

John Ferrell wrote:
> That works pretty good until the other guy is also at 45 to the world
> and 90 degrees to you!

When two pilots are trying to avoid a head-on collision,
they both bank right. Is there a similar convention for
slanted beams? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3326. Re: VHF Circularly Polarized Antenna, for local use?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 00:11:58 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11n2fn7bt737q86@corp.supernews.com>
Source record: 67975

Perhaps I should try it vertically for a while and then horizontally for a while, see which way I like the best, and then leave it at that polarization.

Rod KI7CQ

3327. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 00:13:34 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkrevb$a7i$1@news.service.uci.edu>
Source record: 67826

Richard Clark wrote:

> On Tue, 08 Nov 2005 11:08:00 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
> Hi Jim,
>
>
>>Either way, in three-space or two, you have an interference
>>pattern. That is the point.
>
>
> The point being what? The observation of the pattern is simply that,
> an observation. That a pattern exists is also hardly a revolutionary
> concept. That it is the product of many sources does not preclude the
> results as physics allows a wave to be viewed as a continuum of
> sources along its length.

The typical radiation pattern which would ordinarily illuminate an antenna does not have an array of 'holes' in it - symmetrical or otherwise. Further, you can't expect to compare the performance of two different antennas when the field you're exposing them to is malformed and non-uniform. The result would be convoluted (as you have shown).

> This leaky bucket is not fixed by
> placing it outside of the "null" (ironically it was very near in a
> peak);

It is fixed by creating a uniform field. As I said before, integrating the results from a large number of individual point sources (rather than superposing the fields from a large array of point sources) would not produce an interference pattern.

> hence an interference pattern is immaterial to the loss of
> power as both designs suffer the same pattern - and equally I might
> point out, if other arguments are consistently applied that equal
> powers should be exhibited.

This is apparently incorrect, as both antennas should produce the same result.

One wouldn't have to do as much handwaving and fast talking if the field was uniform, Richard.

73, ac6xg

3328. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 00:25:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <rmbcf.14496$Zv5.3845@newssvr25.news.prodigy.net>
Source record: 67827

Amos Keag wrote:

> Cecil Moore wrote:
>> If the loss in each meter is 4%, wouldn't the loss in 100 meters
>> be 400%? What am I missing?
>
> C'mon Cecil, you know it's an exponential decay.

The maximum HF current point could exist in the first foot of
feedline at the source. Why would the HF losses in the transmission
line at the load ever be greater than at that maximum HF current point?
--
73, Cecil http://www.qsl.net/w5dxp

3329. Extend range for a 900 mhz phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 00:54:51 UTC
From: cocuixtle@gmail.com
Message-ID: <1131497691.878969.231670@g14g2000cwa.googlegroups.com>
Source record: 67828

Hello, I am a newbie in this area of knowledge, I tried to find an answer to my question before posting but I could not. I want to have an extension phone 30 meters in straight line from the base. there are three walls between the desired point and the base. If I take the phone that I have with me (uniden, analog) it works but very poorly. I just need some improvement. I can purchase a 900 mhz dss if this will solve the problem, also, I can conect the antenna from the base to some antenna in the roof (both base and desired point are on the top of a building). Any suggestions?

3330. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 01:08:20 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11mvunacdnek8cf@corp.supernews.com>
Source record: 68002

">>I get a lot of noise from my random wire antenna. It transmits very well
but
>>is very noisy in receive. My neighbor put up a 280 foot loop antenna which
>
> Ok.
>
>>he feeds with ladder line. He feeds the ladder line from a 4 to 1 balun to
>>coax. The coax comes from a tuner. His setup performs very well on all
>>bands
>>down to 75 meters. I went over to his shack last night and listened to his
>>receiver on 75. I was really impressed with the lack of noise. I can
>>safely
>>say the difference in noise was profound. He has this loop surrounding his
>
> So, the noise is "profoundly" less (whatever that means), but what
> about signals that you want to hear, and how does it perform
> transmitting.

Well, I would not be raving about his antenna if it also reduced the signals
you want to hear. He gets the same kind of signal reports that I do. We were
both on the same net one night and we were both be received equally at
various spots. Clearly, mine transmits as well as his.
>
> You see, a 30dB attenuator would profoundly reduce the noise.... and
> the desired receive signals, and the tx signal, but it isn't
> necessarily better.

When I listened to our local North Dakota Data Net, I heard all the checkins
like they were much much closer. No Noise! I should have been more specific.
The S?n ratio was profoundly better than my puny random wire. However, I do
not know yet if I am up to putting up 3 or 4 32 foot poles or higher. What a
drag. I will probably do this next spring. It is getting too cold to make
the task a very pleasant one now.
>
> You probably know the answers, you just didn't tell us.
>
> It is often the case that the best antenna for transmission is the one
> that makes the most noise where you want to be heard, and the best
> antenna for receiving is the one that gives the best S/N ratio (not
> necessarily the best S meter deflection) for stations from that place,
> and they may not be the same antenna.
>
> Owen
> --

3331. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 01:33:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gbh2n1hgufsvre0n22i83ir7aung34s5sl@4ax.com>
Source record: 67829

On Tue, 08 Nov 2005 16:13:34 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>It is fixed by creating a uniform field. As I said before, integrating
>the results from a large number of individual point sources (rather than
>superposing the fields from a large array of point sources) would not
>produce an interference pattern.

Hi Jim,

Here you are clearly wrong in some presumption. For one, I have done
exactly as you have demanded should be done and you find an error. I
have responded several times to this identical complaint you've
offered, and you have neither offered what that error is, or where I
differ from what you insist in integrating the results. It seems to
me in performing it exactly as you describe it, that I have very
little choice in that matter anyway and barring further elaboration in
how my fulfilling your imperative differs from your imperative, your
point remains rather elusive.

>> hence an interference pattern is immaterial to the loss of
>> power as both designs suffer the same pattern - and equally I might
>> point out, if other arguments are consistently applied that equal
>> powers should be exhibited.
>
>This is apparently incorrect, as both antennas should produce the same
>result.

"Should" is the operative word here. "Doesn't" is clearly exhibited.
You don't explain the "Should" and you clearly have issue with the
"Doesn't," but to this point you and others haven't got much to offer.
As I put the challenge to Roy, offer your own model that fulfills the
"Should." Results haven't exactly flown out of that yet, if ever.

>One wouldn't have to do as much handwaving and fast talking if the field
>was uniform, Richard.

A circular uniform field? And one that exists without a pattern of
interference within it? That could only exist at the beginning of
creation reverse filling the void of the cosmos.
THIS is hand waving. ;-)

However, let's just cut to the chase in that you are clearly disturbed
by this "interference pattern" that the tool so clearly reveals. What
about it is so inimical to your expectations? The partitioning of the
problem into multiple sources dates back to Huygens' principle.
Predating EZNEC by 300+ years suggests that the math has more or less

stabilized such that the model confirms it.

73's
Richard Clark, KB7QHC

3332. Re: Question about free space loss ...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 02:09:06 UTC
From: Tom <noname@noprovider.nodomain>
Message-ID: <6Tccf.19055$Ny6.1526@trnddc06>
Source record: 67830

Yes - the common path loss formula includes the antenna gain.

The gain of an antenna is defined as 4*PI*Ae/lambda^2.

The effective aperture (Ae) of the antenna has units of square meters,
the units of lambda^2 are square meters, so the wavelength dependence
just normalizes area in terms of the wavelength. Otherwise the
definition of antenna gain would change with frequency. That is, a
dipole's gain would double everytime the freuqency was doubled, but
that's not how we define antenna gain. We define the gain of a dipole
to be independent of frequency.

Path loss depends on antenna gain, 1/lambda^2 can be
translated to f^2/c^2, thus the dependency of path loss on f.

-- Tom

"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:Nnacf.82574$GQ.4637@tornado.texas.rr.com...
> I've got what's probably a pretty basic question about free space
> loss. I suspect I already know the answer, but I'd like to verify it.
>
> The general formula for free space loss is given as --
>
> 36.6 + 20LogD + 20LogF, where D is the distance in miles and F is
> the frequency in MHz.
>
> Obviously the units don't matter so much -- if you were to change the
> units, you'd just change the 36.6 value to something else. No problem.
>
> The distance component is obvious -- the power is spreading out.
>
> But what's the frequency component about? Why would increasing the
> frequency cause less power to be radiated?
>
> My guess is that the frequency factor is _strictly_ something to take
> into account the effective area/aperature of the receiving antenna,
> which gets smaller as the frequency increases?
>
> As a more real-world example, if you had a 10 foot diameter satellite
> dish, aimed directly at a satellite broadcasting (in all directions --
> let's assume an isotropic antenna there) 10 watts at 2 GHz, it would
> receive (ignoring any losses due to the atmosphere) the same power
> from the satellite if the satellite was broadcasting 10 watts at 200
> GHz?
>

> (Our 10 foot dish is most definately not an isotropic antenna.)
>
> As a reference, I'm looking at
> http://people.deas.harvard.edu/~jones/es151/prop_models/propagation.htm
> and I'm just verifying my conclusions ...
>
> To use the knowledge I think I've learned to solve the problem I'm
> trying to figure out, if you've got something that transmits a certain
> amount of data per second at 50 MHz to a receiver that's 1 mile away,
> and you wanted to switch to a system that works at 5 GHz but uses the
> same bandwidth, blindly applying the FSL formula tells you that you'd
> need 40 dB more power, 10,000 times as much.
>
> (Let's assume that both antennas are both 1/2 wavelength dipoles of
> the appropriate length for both 50 MHz and 5 GHz -- not isotropic, but
> relatively close. My frequencies are arbitrary here, chosen just to
> have a nice ratio of 100.)
>
> But really, since the antenna receives less energy (due to it's
> smaller size, and it's intercepting less of the signal), the
> background noise received by it will be similarly reduced (let's also
> assume that the background noise intensity is the same at the two
> frequencies) and so it's just a matter of using a more sensitive
> receiver, at least until you get to the point where the background
> noise isn't the limiting factor, and instead the limiting factor is
> the noise generated by the receiver itself? That assuming all my
> assumptions are correct (and there's a lot of them, I know) there's
> little need to increase the transmitted power at all -- just increase
> the gain in the amplifier in the receiver?
>
> Am I missing something?
>
> AD5RH
>
> --
> Doug McLaren, dougmc@frenzy.com One dollar, one
> vote.

3333. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 02:33:46 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <37665$43716070$97d56a33$8122@ALLTEL.NET>
Source record: 67831

At the same time velocity factors were converted to furlongs per
fortnight... :>)

"Amos Keag" <A.K01@comcast.net> wrote in message
news:jcydnSPeVqwNpezenZ2dnUVZ_tydnZ2d@comcast.com...
> I just started reading this thread. Is the loss in a 'per meter' or 'per
> wavelength'? In the olden days, we quoted loss as Nepers per
> wavelength. When did it change to 'percent per meter'?
>
> AK
>

3334. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 03:25:47 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0ip2n1t3j3ld1dgobl5utufff0ip0er980@4ax.com>
Source record: 67832

On Tue, 08 Nov 2005 23:09:51 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> In my 100m of W551 with a 16+j0 load at 30MHz, the loss in one metre
>> of line nearest the load is over 4%, the good news is that since 75%
>> of the transmitter power is already lost, the weighted effect of that
>> 4.3% is nearer 1% of tx output.
>
>What the heck is one "metre"? Netscape says that is misspelled and
>probably should be corrected to "metro". Why aren't you guys on
>the English system?

Metre: The fundamental base of the metre is the quarter of the
terrestrial meridian, or the distance from the pole to equator, which
has been divided into ten millions of equal parts, one of which is of
the length of the metre.

I think we saw the light before the English, but I think they have a
partial metrication now.

>If the loss in each meter is 4%, wouldn't the loss in 100 meters
>be 400%? What am I missing?

I did not say "the loss in each meter is 4%", I said "the loss in one
metre of line nearest the load is over 4%".

Firstly, percentage losses on cascaded sections are not additive...
you know that. Losses multiply, dB losses add because adding exponents
is multiply the fundamental quantity.

As I have said before, you seem to be under the misconception that the
overall loss (ie Pin/Pout) per unit length of a transmission line
operating with VSWR>1 is constant,

It is not necessarily a constant. It is for a lossless cable, and I
think it probably is for a distortionless cable... but I would have to
check that.

(It is true that the loss per unit length of a transmission line
operating with VSWR=1 is constant.)

We were discussing an example based on Wireman 551 ladder-line. The
dominant factor affecting loss at 30MHz is the series resistance
element. Does it make sense that since in that example, the magnitude
of the current varies by nearly 25:1 along the line, that the I**2*R
loss per unit length along the line is not constant, and will vary by
a factor approaching 625:1?

Owen
--

3335. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 04:26:08 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11n1ujn491vqd80@corp.supernews.com>
Source record: 67955

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:HCRbf.45698$ty1.39736@bignews1.bellsouth.net...
> Ah yes grasshopper - zee loops - zay are good.
> The loop helps reduce noise since its dc-shorted and no static buildup,
> and your socks won't stick to it. ;-)
> but it takes more trees to hold it up
>
>

Oh thank you Master Rosser. I am a little wiser now. How long before I can
take the pebble from your hand or maybe just kick butt?

3336. Re: new babe to RFID design want to ask some question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 05:26:15 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <2KydnX3Spp7hFezenZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 67833

> "nospam" <nospam1nospam@gmail.com> wrote in message
> news:1131433887.459126.289100@o13g2000cwo.googlegroups.com...
>>
>> I am a software engineer and I know nothing about hardware
>> design....
>>
"Dave" <noone@nowhere.com> wrote in message
news:J7adnfQpwIF5C-3enZ2dnUVZ_tCdnZ2d@crocker.com...
> first, as a software engineer you need to learn how to use google and
> other search engines. all the details you are asking about are out
> there... in excruciating detail in some cases. second, if you are doing
> software why don't you just go buy the hardware from someone who has
> already done all the design and testing and just use their system? or get
> a hardware engineer to do what they do best and figure out what your
> system requirements need? there are probably dozens of off the shelf rfid
> manufacturers out there, just pick the range and type of data you need and
> you should be able to find one that will give you just what you want.
>

Or look at the RFID Journal
http://www.rfidjournal.com/article/articleview/1951/1/1/

gb

3337. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 05:46:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <s2gcf.25446$6e1.21495@newssvr14.news.prodigy.com>
Source record: 67834

Owen Duffy wrote:
> We were discussing an example based on Wireman 551 ladder-line. The
> dominant factor affecting loss at 30MHz is the series resistance
> element. Does it make sense that since in that example, the magnitude
> of the current varies by nearly 25:1 along the line, that the I**2*R
> loss per unit length along the line is not constant, and will vary by
> a factor approaching 625:1?

25% of the power is delivered to the load. There are eleven current
maximum points in 100m on 10m. Does that 11% of the feedline really
contribute 59% of the losses? Does the remaining 89% of the feedline
really only contribute 41% of the losses?
--
73, Cecil http://www.qsl.net/w5dxp

3338. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 06:13:23 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <pk43n1hghgd9p9rhe4mqm00i3bhbosff56@4ax.com>
Source record: 67835

On Wed, 09 Nov 2005 03:25:47 GMT, Owen Duffy <owen@no.where> wrote:

>We were discussing an example based on Wireman 551 ladder-line. The
>dominant factor affecting loss at 30MHz is the series resistance
>element. Does it make sense that since in that example, the magnitude
>of the current varies by nearly 25:1 along the line, that the I**2*R
>loss per unit length along the line is not constant, and will vary by
>a factor approaching 625:1?

I knocked up a quick graph of the attenuation from point x to the load
for this scenario. (I think / hope it is correct!)

http://www.vk1od.net/lost/W551Example.htm

Is the shape of the curve (the cyclic variation over each electrical
half wave diminishing away from the load, and the general shape of the
curve a surprise? The effects plotted here might not be explained by
the ARRL charts.

Owen
--

3339. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 06:18:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5053n1t3os3532p71kb68hjkvoi3p2n2i3@4ax.com>
Source record: 67836

On Wed, 09 Nov 2005 05:46:00 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> We were discussing an example based on Wireman 551 ladder-line. The
>> dominant factor affecting loss at 30MHz is the series resistance
>> element. Does it make sense that since in that example, the magnitude
>> of the current varies by nearly 25:1 along the line, that the I**2*R
>> loss per unit length along the line is not constant, and will vary by
>> a factor approaching 625:1?
>
>25% of the power is delivered to the load. There are eleven current
>maximum points in 100m on 10m. Does that 11% of the feedline really
>contribute 59% of the losses? Does the remaining 89% of the feedline
>really only contribute 41% of the losses?

When I have written about loss per unit length, I have implied "loss at the rate of y per unit length". If you have tried to apply the 4+% figure to one meter at each maximum, then you are unlikely to get any meaningful results for a number of reasons. See the graph I just posted (our posts crossed in the mail so to speak).

I haven't stated it it the post, but it should be obvious that the rate of attenuation is the slope of the line in the plot referenced in the post.

Owen
--

3340. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 08:52:10 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0vd3n19mdn73gd3srojq4ijoa65tgb2sgp@4ax.com>
Source record: 67837

On Tue, 8 Nov 2005 13:23:46 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>I choose a ladderline length to always feed the antenna at a current node.
>

I don't know what this really means, and how it is relevant to the
discussion that the ROT in question doesn't hold true for longer feed
line lengths.

You have previously dismissed 100m of feed line with the eloquent
"sucks" comment, whatever that means.

What has feeding an antenna at the current node got to do with feed
line length? Is it intended to imply that feed line length or the ROT
are not relevant when you feed the antenna at a current node?

Is it just a trite comment to consume bandwidth?

Owen

>"Owen Duffy" <owen@no.where> wrote in message
>news:nn70n1tcbbkthprk11dcv1hesqrpl7cksi@4ax.com...
>> On Mon, 7 Nov 2005 22:21:35 -0500, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>> >How many hams find a feedline length of 100 Meters acceptable? Lets look
>at
>> >a more realistic length of 100 feet and the loss is less than 2 dB at 30
>> >Mhz. The loss is much less on the lower bands. With all due respect, your
>> >example sucks!
>>
>> BTW, I make your example 2.7dB, not less than 2dB. (Perhaps you labour
>> under the misaprehension that loss per unit length is a constant in
>> this situation).
>>
>> Fred, what you have highlighted is the unstated assumption of some
>> limit on length. You know enough to choose a length so that the ROT is
>> true, but does a learner soaking this up know as much?
>>
--

3341. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 10:17:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11n3j5kl4vtqr35@corp.supernews.com>
Source record: 67838

Tam/WB2TT wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11n26bm98889n34@corp.supernews.com...
>
>>Tam/WB2TT wrote:
>>
>>>Roy,
>>>I wasn't too clear, but I have 2 T networks back/back. That makes the
>>>center cap C/2. I am going to run SWCad on the Pi configuration later,
>>>and see what that does.
>>
>>If you've cascaded two sections, you have two 1000 pF capacitors in
>>parallel at the center. That makes a total value of 2000 pF at that point.
>>
>>Roy Lewallen, W7EL
>
>
> It's a high pass filter to reject the AM broadcast band. So, the two 1000 PF
> caps are in series. Am I missing something?

Sorry, I missed that you had made a T network rather than pi.

In general, a tee network substituted for a pi will have the same characteristics only at one frequency, but will have different transfer and/or impedance characteristics at other frequencies. So the substitution should be done with care if characteristics are important at more than one frequency.

In this case, though, if you make a tee network which has the same "half wave" characteristic as the pi at the design frequency, it'll have identical transfer characteristics (it's got the same filter response) and complementary impedance characteristics. That is, at frequencies where one network has an input impedance greater than 50 ohms, the other will have an impedance that's less, and the phase angles are the negatives of each other. And, luckily, the transformation is simple for this particular special case -- the T network reactances are also all the same and also equal to the Z0 of the "transmission line". So one is just as good as the other.

The HPF equivalent doesn't of course simulate a transmission line, although the impedance transformation though the filter is unity at the design frequency. Otherwise, it works in pretty much an opposite way from the LPF.

I need to correct and clarify a couple of points I made in my earlier posting.

The "half wave" lowpass filter simulates a half wavelength transmission line only at and near the design frequency (where the reactances are all the same). It doesn't do a very good job either above or below that frequency. For a better general simulation of a *short* transmission line, reduce the end pi or T network components to half their values. This model improves -- in theory at least -- as more sections are added. In practice, imperfection in the components limits the quality of the approximation. But I don't think this is of particular interest in making analyzer measurements. The 7 MHz example terminated with 50 ohms will show an input impedance within 2 ohms magnitude and 2 degrees phase of 50 ohms between about 6.2 and 7.4 MHz, so it's good for the entire 40 meter band. But it will disturb measurements on lower bands. You should construct one for each band and, preferably, one for each general impedance level you expect to measure. A single one won't do for multiple bands as I implied.

Roy Lewallen, W7EL

3342. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 12:04:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11n3pf4mpq95f8b@corp.supernews.com>
Source record: 67839

Tam/WB2TT wrote:
>
> It's a high pass filter to reject the AM broadcast band. So, the two 1000 PF
> caps are in series. Am I missing something?
>
Sorry, I missed that you had made a T network rather than pi.

In general, a tee network substituted for a pi will have the same characteristics only at one frequency, but will have different transfer and/or impedance characteristics at other frequencies. So the substitution should be done with care if characteristics are important at more than one frequency.

In this case, though, if you make a tee network which has the same "half wave" characteristic as the pi at the design frequency, it'll have identical transfer characteristics (it's got the same filter response) and complementary impedance characteristics. That is, at frequencies where one network has an input impedance greater than 50 ohms, the other will have an impedance that's less, and the phase angles are the negatives of each other. And, luckily, the transformation is simple for this particular special case -- the T network reactances are also all the same and also equal to the Z0 of the "transmission line". So one is just as good as the other.

The HPF equivalent doesn't of course simulate a transmission line, although the impedance transformation though the filter is unity at the design frequency. Otherwise, it works in pretty much an opposite way from the LPF.

I need to correct and clarify a couple of points I made in my earlier posting.

The "half wave" lowpass filter simulates a half wavelength transmission line only at and near the design frequency (where the reactances are all the same). It doesn't do a very good job either above or below that frequency(*). The 7 MHz example terminated with 50 ohms will show an input impedance within 2 ohms magnitude and 2 degrees phase of 50 ohms between about 6.2 and 7.4 MHz, so it's good for the entire 40 meter band. But it will disturb measurements on lower bands. You should construct one for each band and, preferably, one for each general impedance level you expect to measure. A single one won't do for multiple bands as I implied.

(*)For a better general simulation of a *short* transmission line, use a ladder network with all the reactances equal to Z0 except the end components. For the end components, make the series L or shunt C half

the value of the rest. (For example, the LPF I showed would have input and output shunt capacitors with reactance = 100 ohms, and remaining components with reactance = 50 ohms. A five-component tee type network would have input and output series inductors with reactance = 25 ohms, and the remaining components with reactance = 50 ohms.) This model improves -- in theory at least -- as more sections are added, being able to imitate longer and longer lines. In practice, imperfection in the components limits the quality of the approximation. But I don't think this is of particular interest in making analyzer measurements. The model I proposed is better for simulating a half wavelength line while providing filtering.

Roy Lewallen, W7EL

3343. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 14:46:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PYncf.10561$D13.5141@newssvr11.news.prodigy.com>
Source record: 67840

Owen Duffy wrote:
> http://www.vk1od.net/lost/W551Example.htm
>
> Is the shape of the curve (the cyclic variation over each electrical
> half wave diminishing away from the load, and the general shape of the
> curve a surprise? The effects plotted here might not be explained by
> the ARRL charts.

The graph is unclear. What does it mean that 6% loss occurs at
100 neters? Is that 6% loss per meter at the source? There's 4%
loss at 50 meters. Does that mean the average loss per meter is
4%? Where is the 4% loss in the meter closest to the load plotted?
--
73, Cecil http://www.qsl.net/w5dxp

3344. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 15:02:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <fcocf.10562$D13.9092@newssvr11.news.prodigy.com>
Source record: 67841

Owen Duffy wrote:
> What has feeding an antenna at the current node got to do with feed
> line length?

Feedline length for an average system may be about 75 ft.,
the distance from the antenna to the transceiver. If a
current maximum point occurs at 87 ft., make the feedline
87 ft. long with (usually) no tuner required.

I assume what Fred thinks sucks is your implication that the
average ham feeds his antenna with 100 meters of feedline.
What percentage of hams do you think actually use 100 meters
of transmission line?
--
73, Cecil http://www.qsl.net/w5dxp

3345. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 15:13:10 UTC
From: andy <drbrain@hot.ee>
Message-ID: <1131549190.114326.177590@g14g2000cwa.googlegroups.com>
Source record: 67842

Thanks fo sharing. That noise is surely not local: we have powerlines
and industry nearby, LAN in the roofspace, streetlights and so on. I
guess that I'll try a full-wave loop directly laying on the roof,
feedpoint will be low impedance but how low? 5, 1, 0.5 ohms?
Maybe I can transmit to it too if the currents are'nt too high? Is
there an antenna design that has high feedpoint impedance to start
with, so the impedance would be usable when antenna is layd directly to
the roof?

Andrus

3346. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 18:55:28 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1131562528.491037.307890@g14g2000cwa.googlegroups.com>
Source record: 67844

Thanks Ralph, good to get some actual numbers on use of 900MHz at sea!
I'm not sure if we can quite manage a 6' mast (this is not a buoy, but
a mobile vehicle) but clearly more height is better. We already use a
strobe to see the vehicle at night, it does help a lot.

3347. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 18:57:22 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9je4n19quflv2043oh4s6ihv41qvvljhk9@4ax.com>
Source record: 67846

On Wed, 09 Nov 2005 14:46:07 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> http://www.vk1od.net/lost/W551Example.htm
>>
>> Is the shape of the curve (the cyclic variation over each electrical
>> half wave diminishing away from the load, and the general shape of the
>> curve a surprise? The effects plotted here might not be explained by
>> the ARRL charts.
>
>The graph is unclear. What does it mean that 6% loss occurs at
>100 neters? Is that 6% loss per meter at the source? There's 4%
>loss at 50 meters. Does that mean the average loss per meter is
>4%? Where is the 4% loss in the meter closest to the load plotted?

The loss scale is in dB, it is the loss in dB at position x metres
from the load.

If you examine the graph, you will find that the slope of the loss vs
position line is as high as about -22dB/100m at the load, it has a
minimum slope of close to 0dB/100m, and you can see that at large x,
the slope approaches the matched line loss of -1dB/100m.

(You find the -22dB/100m by using a ruler to scale off the slope.
-22dB/100m is -0.22dB/m, or 10**-0.022 which is 0.9506, which
corresponds to a loss of almost 5% in that one metre of line nearest
the load. These aren't mental gymnastics!)

You could calculate an average loss per meter figure, but I don't know
what you could you use it for? The fact that this line is not straight
(as some people seem to assume) means that working with average
numbers is inherently inaccurate.

Owen
--

3348. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 18:57:35 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1131562655.385318.251810@g47g2000cwa.googlegroups.com>
Source record: 67845

OK, impedance mismatches not such a big deal. Got it. I am a newbie at this, as I said.

Good article on the sleeve dipoles, thanks for that. Hadn't seen it before.

I think I will just paint the antenna with epoxy or urethane or something to corrosion-proof it. Think a real thin coat of waterproofing will affect the resonant lengths?

3349. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 18:57:46 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <fcf4n154kgee5igu43umkdq7j2q006bi56@4ax.com>
Source record: 67847

On Wed, 09 Nov 2005 15:02:35 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> What has feeding an antenna at the current node got to do with feed
>> line length?
>
>Feedline length for an average system may be about 75 ft.,
>the distance from the antenna to the transceiver. If a
>current maximum point occurs at 87 ft., make the feedline
>87 ft. long with (usually) no tuner required.

Well, I guess you are guessing at what Fred meant. But such a current maximum on the feed point repeats every electrical half wave, and such an approach doesn't preclude using feed lines much longer than 75 feet.

>
>I assume what Fred thinks sucks is your implication that the
>average ham feeds his antenna with 100 meters of feedline.

That is his misinterpretation if that is the case. I did not say an "average ham", but I assert that it is not all that uncommon to have a ham antenna located at 100m or more, and the ROT falls down.

Thing is, about averages, is that the detail you throw away to calculate the average may have been relevant. Further, there is little consolation to the guy who has 10dB worse than average performance because he has used longer feed line under your ROT, to know that a whole lot of guys using shorter feed line are enjoying better than average performance and on average, it all balances out.

It is quite feasible to place an antenna at longer distances if you want, but ladder line should be operated at lower VSWR for acceptable losses, or better feed line used... and the ROT doesn't say that.

It is the unstated length assumption (of apparently 75') of your ROT that makes limits its validity to the people who are most likely to lap it up.

What is an "average ham" now days? Is it one that doesn't have a real interest in the technical side of the hobby, the "I just wanna talk on the radio" set... they like ROTs, gives them something to parrot on air.

Owen
--

3350. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 18:59:31 UTC
From: jmorash <jmorash@gmail.com>
Message-ID: <1131562771.102947.7060@o13g2000cwo.googlegroups.com>
Source record: 67848

Thanks Roy! I think I understand baluns quite a bit better now. Seems like, indeed, a couple ferrite beads could make quite a difference to my radiation pattern.

This question is for Roy or anyone else who might know the answer: what tool(s) do I want to try and gauge how good of an antenna I've built? An SWR meter? Do they make those for 900 MHz? What else?

3351. Front end overload

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 19:17:41 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <2hi4n1hotfouennu2fi77j3fs136douuqc@4ax.com>
Source record: 67849

If I have two rigs on two different antennas that pass within inches of each other, should I worry about front end overload or burnout on the rig not in use, even if it is off?

(The two rigs are an Icom 735, about 100 watts out, and a TenTec 1320, about 4 watts out.)

Tnx,

Bob
k5qwg

3352. Tape Measure Yagi Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 19:49:02 UTC
From: kevin@unseen.org
Message-ID: <1131565742.060922.169080@g14g2000cwa.googlegroups.com>
Source record: 67850

Hi all

I want to build a relatively small & cheap Airband Yagi for receiving only. I have found the Tape Measure Yagi page:

http://home.att.net/~jleggio/projects/rdf/tape_bm.htm

and that seems like a good starting point so have got the bits I need for that (tape measure 25mm width, wooden beam and RG58 Coax).

I have also found this YAGI design page:

http://www.k7mem.150m.com/Electronic_Notebook/antennas/yagi_vhf.html

that looks like it will give me the spacings I need.

However it leaves me with some questions:

What center frequency should i use? Well I guess that depends on the bandwidth of the YAGI I build, and i have no idea about that, is it 1Mhz, 10Mhz is it balanced +10 and -10 or is it +2 and -10, etc. The main frequency I want to receive is 122.7Mhz, airband is 108 to 137 I believe.

I read that for a tape measure yagi I should use an element diameter of roughly half the tape measure width to put into the calculations - is that ok?

The YAGI I am intending on building is about 6 elements, limited really by the practical boom length, however 'officially' this is to small for the calculator above as it is designed for 'long' yagi's - is the calculator above still ok?

The Tape Measure Yagi uses a single straight driven element with a hairpin for matching. The calculator above suggests using a folded dipole with a piece of coax for the matching network. Can I use a single straight tape measure driven element with the calculations from the K7MEM page? If so what do I need to do with the 'hairpin' matching network, how long does the hairpin need to be?

I appreciate there are a few questions here, and that it isn't an exact science, so all comments, suggestions, answers etc welcome.

Thanks
Kev

3353. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 19:49:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11n4kmp7vgftmc3@corp.supernews.com>
Source record: 67851

jmorash wrote:
> Thanks Roy! I think I understand baluns quite a bit better now. Seems
> like, indeed, a couple ferrite beads could make quite a difference to
> my radiation pattern.
>
> This question is for Roy or anyone else who might know the answer: what
> tool(s) do I want to try and gauge how good of an antenna I've built?
> An SWR meter? Do they make those for 900 MHz? What else?

An SWR meter doesn't measure antenna goodness. The only thing it tells you is how close the antenna's impedance is to 50 ohms, which has nothing to do with the important measures of its performance such as gain and pattern. The best test instrument is a low power transmitter and field strength meter, one at each end of a simulated communication link. For the other end of the link, it would be best to use a setup typical of what you'll actually be using in the field. You'll be able to get some idea of the antenna's effectiveness with over-ground tests, but the ultimate test will be the strength of the signal received over water with the antenna mounted as it will be for the real application. Precise quantitative measurement isn't trivial at all, but qualitative relative measurements are fairly easily made.

Roy Lewallen, W7EL

3354. Re: Front end overload

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 20:03:54 UTC
From: Dave <noone@nowhere.com>
Message-ID: <79WdnX9aXYuty-_enZ2dnUVZ_tOdnZ2d@crocker.com>
Source record: 67852

yes.

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:2hi4n1hotfouennu2fi77j3fs136douuqc@4ax.com...
> If I have two rigs on two different antennas that pass within inches
> of each other, should I worry about front end overload or burnout on
> the rig not in use, even if it is off?
>
> (The two rigs are an Icom 735, about 100 watts out, and a TenTec 1320,
> about 4 watts out.)
>
> Tnx,
>
> Bob
> k5qwg
>
>

3355. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 20:31:31 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dktmb3$421$1@news.service.uci.edu>
Source record: 67853

Richard Clark wrote:
> On Tue, 08 Nov 2005 16:13:34 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>It is fixed by creating a uniform field. As I said before, integrating
>>the results from a large number of individual point sources (rather than
>>superposing the fields from a large array of point sources) would not
>>produce an interference pattern.
>
>
> Hi Jim,
>
> Here you are clearly wrong in some presumption. For one, I have done
> exactly as you have demanded should be done and you find an error. I
> have responded several times to this identical complaint you've
> offered, and you have neither offered what that error is, or where I
> differ from what you insist in integrating the results. It seems to
> me in performing it exactly as you describe it, that I have very
> little choice in that matter anyway and barring further elaboration in
> how my fulfilling your imperative differs from your imperative, your
> point remains rather elusive.

You forgot to write - Harumph! ;-)

If you'll read back, you'll find that the descriptions you've provided of your model are far less than effusive and illuminating. No more than a few partial or incomprehensible sentences were provided. We're left to guess most of the details of what you have done. I can only deduce some of it from the results you have provided. I made no criticism of this. You spoke of symmetries and lost power without mention of their nature. So I mentioned their nature. It should have been obvious, but you hadn't even alluded to a possible explanation for this "lost power".

BTW, single sources do not produce interference patterns (unless somehow you're inadvertantly causing diffraction somewhere between the source and the antenna). Each individual source will provide a signal. The amplitude and phase of the signal rendered in the antenna from a single source will depend the position of the source relative to the orientation and construction of the antenna. Summing all the individual signals rendered in the antenna from a multitude of individuals sources does not create an interference pattern in 3 space. It produces a simple magnitude and phase which would hypothetically appear in the antenna if an incoming uniform 'spherical field' existed.

> However, let's just cut to the chase in that you are clearly disturbed
> by this "interference pattern" that the tool so clearly reveals.

I don't find interference to be disturbing. I'm simply pointing out
that we shouldn't expect textbook results from antennas that are
positioned amidst interfering sources. I'm sorry to have perturbed you
with my comments and observations. Any criticisms you may have
precieved should have been taken as purely constructive to the task.
That is my only intent.

73, ac6xg

3356. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 21:14:20 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <a9c00$43726715$97d56a33$26368@ALLTEL.NET>
Source record: 67854

Hardly trite, it limits the line length to a maximum of 164 feet.

"Owen Duffy" <owen@no.where> wrote in message
news:0vd3n19mdn73gd3srojq4ijoa65tgb2sgp@4ax.com...
> On Tue, 8 Nov 2005 13:23:46 -0500, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >I choose a ladderline length to always feed the antenna at a current
node.
> >
>
> I don't know what this really means, and how it is relevant to the
> discussion that the ROT in question doesn't hold true for longer feed
> line lengths.
>
> You have previously dismissed 100m of feed line with the eloquent
> "sucks" comment, whatever that means.
>
> What has feeding an antenna at the current node got to do with feed
> line length? Is it intended to imply that feed line length or the ROT
> are not relevant when you feed the antenna at a current node?
>
> Is it just a trite comment to consume bandwidth?
>
> Owen
>
> >"Owen Duffy" <owen@no.where> wrote in message
> >news:nn70n1tcbbkthprk11dcv1hesqrpl7cksi@4ax.com...
> >> On Mon, 7 Nov 2005 22:21:35 -0500, "Fred W4JLE" <w4jle@w4jle.com>
> >> wrote:
> >>
> >> >How many hams find a feedline length of 100 Meters acceptable? Lets
look
> >at
> >> >a more realistic length of 100 feet and the loss is less than 2 dB at
30
> >> >Mhz. The loss is much less on the lower bands. With all due respect,
your
> >> >example sucks!
> >>
> >> BTW, I make your example 2.7dB, not less than 2dB. (Perhaps you labour
> >> under the misaprehension that loss per unit length is a constant in
> >> this situation).
> >>

> >> Fred, what you have highlighted is the unstated assumption of some
> >> limit on length. You know enough to choose a length so that the ROT is
> >> true, but does a learner soaking this up know as much?
> >>
> --

3357. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 21:26:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cep4n1tmef2ckurdg7kjfhn29j7s8v7t22@4ax.com>
Source record: 67855

On Wed, 09 Nov 2005 12:31:31 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:
>If you'll read back, you'll find that the descriptions you've provided
>of your model are far less than effusive and illuminating.

Hi Jim,

Is that the standard we now measure by? The data is not going to
change and its repetition is not necessary. Do you have something new
to point out?

>You spoke of symmetries and lost power without mention of their nature.

I left speculation to others and you stepped up to the podium.

>So I mentioned their nature. It should have been obvious, but
>you hadn't even alluded to a possible explanation for this "lost power".

Again, this was already offered by me - I may have made a mistake. As
of yet, no one seems interested in pursuing that. Other explanations
would hardly qualify as such, they would be speculations as I've said
and given there is no competing model supporting those speculations -
well, the adage that talk is cheap has had the price slashed by
posting is cheaper.

>BTW, single sources

Demonstrate a single source that offers an inward radiating circular
field. I can anticipate you might be tempted to suggest the
multiplicity of sources accruing from the big bang, but then that
would violate your premise:

>do not produce interference patterns

As I've suggested, all it takes is a positive model supporting a
negation of my results.

>> However, let's just cut to the chase in that you are clearly disturbed
>> by this "interference pattern" that the tool so clearly reveals.
>
>I don't find interference to be disturbing. I'm simply pointing out
>that we shouldn't expect textbook results from antennas that are
>positioned amidst interfering sources.

Well, then it descends to a population of one disturbed correspondent,
and Roy has yet to resolve his conflict. Your last observation must
emphasize it if we cannot expect a modeler to provide textbook
results.

So, as it stands I see that no one has a competing model and the data remains an enigma to most.

73's
Richard Clark, KB7QHC

3358. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-09 23:46:04 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0Tvcf.25607$6e1.5815@newssvr14.news.prodigy.com>
Source record: 67856

Owen Duffy wrote:
> The loss scale is in dB, it is the loss in dB at position x metres
> from the load.

Aha, I see that noted at the bottom now that I scroll down.
It didn't make sense to me if the loss scale was in percent.
So what do I get if I integrate the area under the curve?

Incidentally, I was engaging in fuzzy republican thinking when
I came up with eleven current maximum points in 100 meters of
feedline. Of course, there are twice that, i.e. 22 current maximum
points which can be counted on your graph.

> You could calculate an average loss per meter figure, but I don't know
> what you could you use it for? The fact that this line is not straight
> (as some people seem to assume) means that working with average
> numbers is inherently inaccurate.

Owen, most hams are not rocket scientists like you :-) Quite
often, a rule-of-thumb average beats total ignorance. All
measurements contain errors and are inherently inaccurate.
Some of us live with that reality. Some of us rant and rave
about it. Next time you are on your motorcycle, note that
your speedometer is "inherently inaccurate" as is your gas
gauge as are your reflexes. If you are not inherently inaccurate
throwing darts in the local pub, you are a very unusual homo sapien.

I, for one, am satisfied with average losses, presumably averaged
over one half wavelength. The way I came up with that 25:1 limit
on my open-wire SWR is that 600/25 equals 24 ohms and that is an
acceptable impedance to my IC-256PRO's autotuner. Noting that the
losses in 100 ft. of open-wire line running at an SWR of 25:1 are
acceptable was an afterthought.
--
73, Cecil http://www.qsl.net/w5dxp

3359. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 00:08:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ncwcf.25611$6e1.9716@newssvr14.news.prodigy.com>
Source record: 67857

Owen Duffy wrote:
> Well, I guess you are guessing at what Fred meant.

Nope, not a guess. Fred and I are on the same wavelength. :-)
We use the same "notuner" method for resonating our antenna
systems.

> That is his misinterpretation if that is the case. I did not say an
> "average ham", but I assert that it is not all that uncommon to have a
> ham antenna located at 100m or more, and the ROT falls down.

But it is indeed extremely uncommon for an *American* amateur
radio operator to have a feedline that is 100m long. I personally
know of only a handfull of cases in my 55 years of hamming and
most of those involved getting vhf/uhf antennas to the top of a hill.

> Thing is, about averages, is that the detail you throw away to
> calculate the average may have been relevant.

It may be relevant to a "rocket scientist", such as yourself, and
completely irrelevant and indeed beyond the understanding of the
average ham who must necessarily rely upon rules of thumb.

> It is quite feasible to place an antenna at longer distances if you
> want, ...

~99.99% of hams don't want to. Why make things more difficult?

> It is the unstated length assumption (of apparently 75') of your ROT
> that makes limits its validity to the people who are most likely to
> lap it up.

Sorry to disagree, the great majority of "people who are most likely
to lap it up" are people with 60-100 foot feedlines. Most assertions
on this newsgroup are in the context of the average ham.

Owen, it's obvious that you deliberately picked 100 meters to try to
prove a point that you couldn't make otherwise. You chose an inferior
ladder-line that I wouldn't even allow on my property. Your attempts to
save face by dragging the discussion down some primrose path involving
minute details is interesting but not interesting enough to follow
you down said path.
--
73, Cecil http://www.qsl.net/w5dxp

3360. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 00:11:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Pewcf.25612$6e1.2706@newssvr14.news.prodigy.com>
Source record: 67858

Jim Kelley wrote:
> Any criticisms you may have
> precieved should have been taken as purely constructive to the task.

Richard probably considers you input to be constructive interference. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3361. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 00:16:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <6jwcf.25613$6e1.25176@newssvr14.news.prodigy.com>
Source record: 67859

Michael wrote:

> I had never hear of a loop antenna back in the 50s.

Loops started to come into their own with the invention
by C. C. Moore of the Cubical Quad circa 1939.
--
73, Cecil http://www.qsl.net/w5dxp

3362. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 00:32:48 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <th45n1hgiu67g238qb3plikufg7ufa1civ@4ax.com>
Source record: 67860

On Thu, 10 Nov 2005 00:08:51 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen, it's obvious that you deliberately picked 100 meters to try to
>prove a point that you couldn't make otherwise. You chose an inferior
>ladder-line that I wouldn't even allow on my property. Your attempts to
>save face by dragging the discussion down some primrose path involving
>minute details is interesting but not interesting enough to follow
>you down said path.

I chose 100m as a round number that is practical and long enough to demonstrate that at very high VSWR, the approximations that might hold for shorter lengths and lower VSWR are no longer valid. Open wire feeders well in excess of 100m are practical, but ladder line with very high VSWR isn't.

(On the other hand, your 75' "standard" is about enough to reach the feed point of a medium height antenna directly above the shack, and might be argued as a minimum practical length for a good antenna.)

The ladder line I chose was one of the four that have reasonably good characterisation (by N7WS) and it wouldn't matter much which of the four you chose, they are fairly similar... I chose the first one on the list. (The last one on the list, 554 with 25:1 load SWR give 5.6dB against 6dB or 551... I wont bother checking the others.) No, I did not deliberately choose an inferior ladder line.

Owen
--

3363. Re: Front end overload

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 01:07:13 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <1dKdnRH9istMAe_enZ2dnUVZ_sqdnZ2d@comcast.com>
Source record: 67861

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:2hi4n1hotfouennu2fi77j3fs136douuqc@4ax.com...
> If I have two rigs on two different antennas that pass within inches
> of each other, should I worry about front end overload or burnout on
> the rig not in use, even if it is off?
>
> (The two rigs are an Icom 735, about 100 watts out, and a TenTec 1320,
> about 4 watts out.)
>
> Tnx,
>
> Bob
> k5qwg
>
>
Fire up the Icom, and connect a meter and dummy load to the other coax. I
once saw 10W.

Tam/WB2TT

3364. Re: Front end overload

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 01:42:16 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <k895n1tf1h8nku6anb57vjko912qtuhnlc@4ax.com>
Source record: 67862

On Wed, 9 Nov 2005 20:07:13 -0500, "Tam/WB2TT" <t-tammaru@c0mca$t.net>
wrote:

>
>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>news:2hi4n1hotfouennu2fi77j3fs136douuqc@4ax.com...
>> If I have two rigs on two different antennas that pass within inches
>> of each other, should I worry about front end overload or burnout on
>> the rig not in use, even if it is off?
>>
>> (The two rigs are an Icom 735, about 100 watts out, and a TenTec 1320,
>> about 4 watts out.)
>>
>> Tnx,
>>
>> Bob
>> k5qwg
>>
>>
>Fire up the Icom, and connect a meter and dummy load to the other coax. I
>once saw 10W.
>
>Tam/WB2TT
>

I don't have an a-la-carte dummy load to try that test, but I'll take
your word for it :-)

Thanks,

bob
k5qwg

3365. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 02:27:49 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Feycf.14983$q%.8857@newssvr12.news.prodigy.com>
Source record: 67863

Owen Duffy wrote:
> I chose 100m as a round number that is practical ...

328.1 feet is NOT a round number. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3366. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 02:48:23 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <Xxycf.316608$084.29292@attbi_s22>
Source record: 67864

See this link for some more info
http://lists.contesting.com/archives/html/Towertalk/2002-11/msg00393.html

"Cecil Moore" <mycall@arrl.net> wrote in message
news:6jwcf.25613$6e1.25176@newssvr14.news.prodigy.com...
> Michael wrote:
>
>> I had never hear of a loop antenna back in the 50s.
>
> Loops started to come into their own with the invention
> by C. C. Moore of the Cubical Quad circa 1939.
> --
> 73, Cecil http://www.qsl.net/w5dxp

3367. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 04:48:41 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11n47fl21h8li6e@corp.supernews.com>
Source record: 67843

I appreciate all the comments very much. A folded dipole would be easier for me. I will discuss this with my neighbor W0BBN. He has been using a loop for 20 years. It sounds like it is hard to go wrong if you are willing to put out the work for a loop antenna. I have been away from low band work since I started college. That has been very very long ago. I had never hear of a loop antenna back in the 50s. There was no internet and other hams were few and far between where I lived in the country.

3368. Re: Tape Measure Yagi Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 08:15:19 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <BuIYGVFXGwcDFAk1@ifwtech.co.uk>
Source record: 67865

Kev wrote:
>Hi all
>
>I want to build a relatively small & cheap Airband Yagi for receiving
>only. I have found the Tape Measure Yagi page:
>
>http://home.att.net/~jleggio/projects/rdf/tape_bm.htm
>
>and that seems like a good starting point so have got the bits I need
>for that (tape measure 25mm width, wooden beam and RG58 Coax).
>
>I have also found this YAGI design page:
>
>http://www.k7mem.150m.com/Electronic_Notebook/antennas/yagi_vhf.html
>
>that looks like it will give me the spacings I need.
>
[...]

>The YAGI I am intending on building is about 6 elements, limited really
>by the practical boom length, however 'officially' this is to small for
>the calculator above as it is designed for 'long' yagi's - is the
>calculator above still ok?
>
No. The first 6 elements of the DL6WU yagis on that page are
specifically optimized to be the start of a much longer yagi. On their
own, they would not make a good 6-element yagi.

If all you want are 6 elements, look for a 6-element design. There is a
good example at:
http://www.ifwtech.co.uk/g3sek/diy-yagi/dubus/bvo6.htm

Also try searching www.cebik.com for "owa" (Optimized Wideband Array).

You are unlikely to find a design for the particular frequency you want
to use. Modifying designs to a different frequency requires is basically
about building an exact scale model, with all its dimensions scaled to a
different wavelength... but I do mean *all* dimensions. This often isn't
mechanically practical, and if you change a key feature like the element
diameter, the diameter of a metal boom and/or the element mounting
method, then all the element lengths will need to change as well.
There's a program to help you do this on my 'VHF/UHF Long Yagi Workshop'
page:
http://www.ifwtech.co.uk/g3sek/diy-yagi/index.htm

Yagi performance falls off quite rapidly above the design frequency, so
if you want to cover the whole band, you should design it for a
frequency towards the high end.

From that same page, you'll also find some practical construction tips
(although I'm not personally familiar with the tape measure
construction).

[...]
>
>I appreciate there are a few questions here, and that it isn't an exact
>science, so all comments, suggestions, answers etc welcome.
>
Yagi design is quite an exact science. The art *building* yagis is to
let the science work :-)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3369. fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 10:06:56 UTC
From: ml <m@di.net>
Message-ID: <m-6F866D.05064710112005@news.verizon.net>
Source record: 67866

hi

I noticed the below lately and wonder, being new at this ... how one would measure it?

is their a step by step guide or just a specific instrument(s) you need

I'd love to learn and try it, but didn't see any posted ''instructions''...
any help appreciated

m

partially cut from the arrl's email
"Returning to the airwaves November 17 at 0245 UTC (Wednesday, November 16 in US time zones), the 2005 ARRL Frequency Measuring Test (FMT) once again will call on participants to measure the frequency of an audio tone modulating the carrier.

''Measuring the tone frequency, as opposed to that of the carrier, reinforces the understanding of the relationship between carrier frequency and the actual components of a transmitted signal,'' Engineer and ARRL Contributing Editor Ward Silver, N0AX, says in ''Tune In the 2005 Frequency Measuring Test,'' in November QST (p 54),...www.arrl.org/w1aw/fmt/2005/05fmtsilver.pdf. ''With the carrier largely suppressed for SSB signals, only the sideband components remain. A single modulating tone results in a single transmitted component.'' But, Silver notes, the frequency of the absent carrier is what the operator sees on the radio's display.

The FMT signals will emanate from Maxim Memorial Station W1AW this year on 160, 80 and 40 meters. The 20-meter transmission has been dropped for 2005 because of the generally poor conditions during evening hours on that band. The frequencies will be 1855, 3990 and 7290 kHz, and all transmissions will be on lower sideband (LSB). The FMT will replace the W1AW phone bulletin normally transmitted at 0245 UTC on November 17 (November 16 in US time zones).

Participants may utilize either direct or indirect techniques to determine the tone frequency. ''Direct measurements assume a carrier frequency and measure the audio tone frequency directly,'' Silver explains. ''Indirect measurements obtain the transmitted frequency of the tone component at RF, then compute the difference between the published carrier frequency and measured frequency.''

Silver advises that since the W1AW exciters are independent units and not fed with a single local oscillator, participants can expect

the measured tone frequency to differ slightly on each band.

The test itself will consist of three 60-second tone transmissions on each band, followed by a station identification. The whole test will run for about 15 minutes and will end with a station ID.

Submitted reports should include the time of reception and the tone frequency. Those using an indirect measurement method should show how they calculated the tone frequency. Participants also should include name, call sign and location in their reports, and they may submit separate reports for each band. A Certificate of Participation is available to all entrants.

3370. Re: Tape Measure Yagi Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 14:48:12 UTC
From: jimbo <jimbo@spamless.com>
Message-ID: <43735DAA.29880426@spamless.com>
Source record: 67867

hi kevin,

Since you're interested in a 2 element yagi for reception only,
how about a Moxon antenna ?

You can use aluminum rod and pvc, takes up less space
then the Yagi but almost same performance.
Or try it with the tape measure for elements.
Direct fed with 50 ohm coax.

http://www.cebik.com/moxon/moxbld.html

Here is a calculator to help build a Moxon for a given frequency.

http://www.cebik.com/moxon/moxpage.html

Good luck!

jimbo

3371. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 16:33:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jbt6n11j7ouc4m4ddieeaorliju81gspmv@4ax.com>
Source record: 67868

On Thu, 10 Nov 2005 10:06:56 GMT, ml <m@di.net> wrote:
>I'd love to learn and try it, but didn't see any posted
>''instructions''...

>Participants may utilize either direct or indirect techniques to
>determine the tone frequency. ''Direct measurements assume a carrier
>frequency and measure the audio tone frequency directly,'' Silver
>explains. ''Indirect measurements obtain the transmitted frequency of
>the tone component at RF, then compute the difference between the
>published carrier frequency and measured frequency.''

Hi Myles,

You don't see instructions because you are supposed to work this out
for yourself and then report both your results and HOW YOU DID IT.

It should be a slam dunk with a PC sound card being run under an FFT.
However, the skill part is tuning the sideband (and then it remains
only the skill of reading the frequency setting of your rig - any
error is probably going to be there).

73's
Richard Clark, KB7QHC

3372. Coax Connector, Adapter, & Bulk Cable Catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 17:24:17 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <EmLcf.72$7B.52@fed1read02>
Source record: 67869

For your free copy of our new catalog, please email sales@AAARFProducts.com
or see www.aaarfproducts.com

No minimum order.

No handling charges.

High quality and low cost.

3373. Re: Antenna gain question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 17:25:46 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dkvvqorak3@news.service.uci.edu>
Source record: 67870

Cecil Moore wrote:
> Jim Kelley wrote:
>
>> Any criticisms you may have precieved should have been taken as purely
>> constructive to the task.
>
>
> Richard probably considers your input to be constructive interference. :-)

Then it wasn't for naught. We've finally landed upon something that you
and Richard can agree upon. ;-)

73, Jim AC6XG

3374. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 17:26:13 UTC
From: richardharrison@webtv.net
Message-ID: <29588-437382B5-228@storefull-3254.bay.webtv.net>
Source record: 67871

Richard Clark, KB7QHC wrote:
"---by A. Frederick Collins inventor of the Wireless Telephone, 1899."

Collins apparently connected an arc lamp to an arial and ground, using a microphone transmitter to modulate the oscillations it set up. I suppose a carbon button in series with the d-c to the arc would do that.

Success has many authors. The airplane had many builders around this productive era, but it is the Wright brothers that are credited with the first practical success.

Fessenden was a Canadian who happened to be Chief Engineer of the Radio Corporation of America, successor to the American Marconi Company. Fessenden holds more patents than aqnyone except Thomas Edison, who once employed Fessenden. Fessenden`s modulation method was control of the excitation of an r-f alternator by a magnetic amplifier which he modulated with audio, speech, music or whatever, even dots and dashes. Modulation of high r-f powers was commonplace. Hundreds of kilowatts were produced and modulated by the Fessenden method. A relic of the era in Sweeden is still revived annually for demonstration, I believe.

Best regards, Richard Harrison, KB5WZI

3375. Re: ladderline to coax adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 18:35:49 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dl03u4$159$1@news.service.uci.edu>
Source record: 67872

Owen Duffy wrote:

> (On the other hand, your 75' "standard" is about enough to reach the
> feed point of a medium height antenna directly above the shack, and
> might be argued as a minimum practical length for a good antenna.)

As opposed to the standard full height backyard antenna with 100 meter
feedline which would then be something more like this:

http://www.kkn.net/gallery/hcjb/hc15

;-)
ac6xg

3376. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 23:12:27 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11n7ktuncrro4e9@corp.supernews.com>
Source record: 67873

Years ago, I was faculty advisor of a thesis containing a viable technique
for measuring the carrier of a SSB signal modulated by a human voice when
the carrier was nulled. The student's name, as well as I can remember, was
Day and his first name was something like Louis.

Should be a link to it somewhere.

The scheme took advantage of the nature of the human voice. It required one
to have the means to inject a carrier (which was measured by conventional
means) and to look at the recovered audio on a scope.

The old FMT had one measure CW signals. They were great fun.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:jbt6n11j7ouc4m4ddieeaorliju81gspmv@4ax.com...
> On Thu, 10 Nov 2005 10:06:56 GMT, ml <m@di.net> wrote:
> >I'd love to learn and try it, but didn't see any posted
> >''instructions''...
>
> >Participants may utilize either direct or indirect techniques to
> >determine the tone frequency. ''Direct measurements assume a carrier
> >frequency and measure the audio tone frequency directly,'' Silver
> >explains. ''Indirect measurements obtain the transmitted frequency of
> >the tone component at RF, then compute the difference between the
> >published carrier frequency and measured frequency.''
>
> Hi Myles,
>
> You don't see instructions because you are supposed to work this out
> for yourself and then report both your results and HOW YOU DID IT.
>
> It should be a slam dunk with a PC sound card being run under an FFT.
> However, the skill part is tuning the sideband (and then it remains
> only the skill of reading the frequency setting of your rig - any
> error is probably going to be there).
>
> 73's
> Richard Clark, KB7QHC

3377. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-10 23:26:38 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11n7loiiljqs9af@corp.supernews.com>
Source record: 67874

Here is the title and author's name:
A method for accurate receiver tuning and precise measurement of the carrier frequency of voice-modulated, suppressed-carrier, single-sideband radio signals
Day, Lucius Boyden.

I do not know where it might be read on the WEB. 73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11n7ktuncrro4e9@corp.supernews.com...
> Years ago, I was faculty advisor of a thesis containing a viable technique
> for measuring the carrier of a SSB signal modulated by a human voice when
> the carrier was nulled. The student's name, as well as I can remember, was
> Day and his first name was something like Louis.
>
> Should be a link to it somewhere.
>
> The scheme took advantage of the nature of the human voice. It required one
> to have the means to inject a carrier (which was measured by conventional
> means) and to look at the recovered audio on a scope.
>
> The old FMT had one measure CW signals. They were great fun.
>
> 73 Mac N8TT
>
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:jbt6n11j7ouc4m4ddieeaorliju81gspmv@4ax.com...
> > On Thu, 10 Nov 2005 10:06:56 GMT, ml <m@di.net> wrote:
> > >I'd love to learn and try it, but didn't see any posted
> > >''instructions''...
> >
> > >Participants may utilize either direct or indirect techniques to
> > >determine the tone frequency. ''Direct measurements assume a carrier
> > >frequency and measure the audio tone frequency directly,'' Silver
> > >explains. ''Indirect measurements obtain the transmitted frequency of
> > >the tone component at RF, then compute the difference between the
> > >published carrier frequency and measured frequency.''

> >
> > Hi Myles,
> >
> > You don't see instructions because you are supposed to work this out
> > for yourself and then report both your results and HOW YOU DID IT.
> >
> > It should be a slam dunk with a PC sound card being run under an FFT.
> > However, the skill part is tuning the sideband (and then it remains
> > only the skill of reading the frequency setting of your rig - any
> > error is probably going to be there).
> >
> > 73's
> > Richard Clark, KB7QHC
>
>

3378. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 00:29:19 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <a3p7n15r1agbfgfmhl577ske4j4u5psfhg@4ax.com>
Source record: 67875

On Thu, 10 Nov 2005 10:06:56 GMT, ml <m@di.net> wrote:

>hi
>
>I noticed the below lately and wonder, being new at this ... how one
>would measure it?
>
>is their a step by step guide or just a specific instrument(s) you need
>
>I'd love to learn and try it, but didn't see any posted
>''instructions''...
>any help appreciated

This looks like a guessing game / lottery to some extent, since no information is given on the stability of either the virtual carrier or the modulating tone (yet you are advised they both may vary) and the time of measurement (an instant?) is part of the submitted data.

The winner using a sound scientific approach to measurement may require luck to be not beaten by a less accurate, but closer answer at some moment.

Owen
>
>
>m
>
>
>partially cut from the arrl's email
>"Returning to the airwaves November 17 at 0245 UTC (Wednesday,
>November 16 in US time zones), the 2005 ARRL Frequency Measuring
>Test (FMT) once again will call on participants to measure the
>frequency of an audio tone modulating the carrier.
>
>''Measuring the tone frequency, as opposed to that of the carrier,
>reinforces the understanding of the relationship between carrier
>frequency and the actual components of a transmitted signal,''
>Engineer and ARRL Contributing Editor Ward Silver, N0AX, says in
>''Tune In the 2005 Frequency Measuring Test,'' in November QST (p
>54),...www.arrl.org/w1aw/fmt/2005/05fmtsilver.pdf. ''With the carrier
>largely suppressed for SSB signals, only the sideband components
>remain. A single modulating tone results in a single transmitted
>component.'' But, Silver notes, the frequency of the absent carrier
>is what the operator sees on the radio's display.
>

>The FMT signals will emanate from Maxim Memorial Station W1AW this
>year on 160, 80 and 40 meters. The 20-meter transmission has been
>dropped for 2005 because of the generally poor conditions during
>evening hours on that band. The frequencies will be 1855, 3990 and
>7290 kHz, and all transmissions will be on lower sideband (LSB). The
>FMT will replace the W1AW phone bulletin normally transmitted at
>0245 UTC on November 17 (November 16 in US time zones).
>
>Participants may utilize either direct or indirect techniques to
>determine the tone frequency. ''Direct measurements assume a carrier
>frequency and measure the audio tone frequency directly,'' Silver
>explains. ''Indirect measurements obtain the transmitted frequency of
>the tone component at RF, then compute the difference between the
>published carrier frequency and measured frequency.''
>
>Silver advises that since the W1AW exciters are independent units
>and not fed with a single local oscillator, participants can expect
>the measured tone frequency to differ slightly on each band.
>
>The test itself will consist of three 60-second tone transmissions
>on each band, followed by a station identification. The whole test
>will run for about 15 minutes and will end with a station ID.
>
>Submitted reports should include the time of reception and the tone
>frequency. Those using an indirect measurement method should show
>how they calculated the tone frequency. Participants also should
>include name, call sign and location in their reports, and they may
>submit separate reports for each band. A Certificate of
>Participation is available to all entrants.
--

3379. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 00:41:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k2q7n15h0ami0pdrt1324ionhavmeg5fk2@4ax.com>
Source record: 67776

On Thu, 10 Nov 2005 18:26:38 -0500, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

>Here is the title and author's name:
>A method for accurate receiver tuning and precise measurement of the carrier
>frequency of voice-modulated, suppressed-carrier, single-sideband radio
>signals
> Day, Lucius Boyden.
>
> I do not know where it might be read on the WEB. 73 Mac N8TT

Hi Mac,

With a name like that, a search against it should have more success
than I have encountered (which is to say none). Wish I could have
done better.

73's
Richard Clark, KB7QHC

3380. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 01:26:57 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dl0s11imv1@news.service.uci.edu>
Source record: 67777

J. Mc Laughlin wrote:

> Here is the title and author's name:
> A method for accurate receiver tuning and precise measurement of the carrier
> frequency of voice-modulated, suppressed-carrier, single-sideband radio
> signals
> Day, Lucius Boyden.
>
> I do not know where it might be read on the WEB. 73 Mac N8TT
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net

No hits in the UC library system, unfortunately.

jk

> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> news:11n7ktuncrro4e9@corp.supernews.com...
>
>>Years ago, I was faculty advisor of a thesis containing a viable technique
>>for measuring the carrier of a SSB signal modulated by a human voice when
>>the carrier was nulled. The student's name, as well as I can remember,
>
> was
>
>>Day and his first name was something like Louis.
>>
>>Should be a link to it somewhere.
>>
>>The scheme took advantage of the nature of the human voice. It required
>
> one
>
>>to have the means to inject a carrier (which was measured by conventional
>>means) and to look at the recovered audio on a scope.
>>
>> The old FMT had one measure CW signals. They were great fun.
>>
>> 73 Mac N8TT
>>
>>--
>>J. Mc Laughlin; Michigan U.S.A.
>>Home: JCM@Power-Net.Net
>>"Richard Clark" <kb7qhc@comcast.net> wrote in message

>>news:jbt6n11j7ouc4m4ddieeaorliju81gspmv@4ax.com...
>>
>>>On Thu, 10 Nov 2005 10:06:56 GMT, ml <m@di.net> wrote:
>>>
>>>>I'd love to learn and try it, but didn't see any posted
>>>>''instructions''...
>>>
>>>>Participants may utilize either direct or indirect techniques to
>>>>determine the tone frequency. ''Direct measurements assume a carrier
>>>>frequency and measure the audio tone frequency directly,'' Silver
>>>>explains. ''Indirect measurements obtain the transmitted frequency of
>>>>the tone component at RF, then compute the difference between the
>>>>published carrier frequency and measured frequency.''
>>>
>>>Hi Myles,
>>>
>>>You don't see instructions because you are supposed to work this out
>>>for yourself and then report both your results and HOW YOU DID IT.
>>>
>>>It should be a slam dunk with a PC sound card being run under an FFT.
>>>However, the skill part is tuning the sideband (and then it remains
>>>only the skill of reading the frequency setting of your rig - any
>>>error is probably going to be there).
>>>
>>>73's
>>>Richard Clark, KB7QHC
>>
>>
>
>

3381. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 02:07:19 UTC
From: dxer@aol.com
Message-ID: <1131674839.899399.4050@g44g2000cwa.googlegroups.com>
Source record: 67778

An outside loop works very well for nulling the noise and still
allowing you to hear the weak stations.
In most if not all of the ARRL Antenna Books, there is a chapter on
a 160 meter receiving loop, you can just scale this back for 80m.
I dont have the book here now, I think the lenght was something like
25' or so for 160m.
It is made out of a 75 ohm piece of coax that goes around once,
connected to a air variable cap. The braid of the coax is cut at a
certain point in the loop.
Its not that big at all even on 160m and can be put up on a pole and
turned by hand or even by a small TV type rotor.
On 160m with terrible local power line noise I was able to hear many
stations including DX stations on the loop that I could never hear on
my Inverted L transmitting antenna on 160m.

73s
Craig N0BSA

3382. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 04:34:39 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11n87q37p6rp1fa@corp.supernews.com>
Source record: 67779

Dear Richard:
I too have given it a good try without much success. I think that I gave my
(paper) copy to our library long ago. It probably disappeared is one of
many purges. The Naval Postgraduate School indicates that they have two
paper copies.

I will try to remember details. The scheme worked.

It just occurred to me to check for a Radio Amateur license:
DAY JR, LUCIUS B, W5ZJZ (General)
10306 W IDAHO PL
LAKEWOOD, CO 80232-5019
His age is about right.

73, Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:k2q7n15h0ami0pdrt1324ionhavmeg5fk2@4ax.com...
> On Thu, 10 Nov 2005 18:26:38 -0500, "J. Mc Laughlin"
> <jcm@power-net.net> wrote:
>
> >Here is the title and author's name:
> >A method for accurate receiver tuning and precise measurement of the
carrier
> >frequency of voice-modulated, suppressed-carrier, single-sideband radio
> >signals
> > Day, Lucius Boyden.
> >
> > I do not know where it might be read on the WEB. 73 Mac N8TT
>
> Hi Mac,
>
> With a name like that, a search against it should have more success
> than I have encountered (which is to say none). Wish I could have
> done better.
>
> 73's
> Richard Clark, KB7QHC

3383. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 04:37:37 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11n87vk5rtpu892@corp.supernews.com>
Source record: 67780

Dear Jim: Thanks for looking. I am surprised as he was in California at
the time, as well as I remember.
73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Jim Kelley" <jwkelley@nospam.edu> wrote in message
news:dl0s11imv1@news.service.uci.edu...
>
>
> J. Mc Laughlin wrote:
>
> > Here is the title and author's name:
> > A method for accurate receiver tuning and precise measurement of the
carrier
> > frequency of voice-modulated, suppressed-carrier, single-sideband radio
> > signals
> > Day, Lucius Boyden.
> >
> > I do not know where it might be read on the WEB. 73 Mac N8TT
> > --
> > J. Mc Laughlin; Michigan U.S.A.
> > Home: JCM@Power-Net.Net
>
> No hits in the UC library system, unfortunately.
>
> jk
>
> > "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> > news:11n7ktuncrro4e9@corp.supernews.com...
> >
> >>Years ago, I was faculty advisor of a thesis containing a viable
technique
> >>for measuring the carrier of a SSB signal modulated by a human voice
when
> >>the carrier was nulled. The student's name, as well as I can remember,
> >
> > was
> >
> >>Day and his first name was something like Louis.
> >>
> >>Should be a link to it somewhere.
> >>

> >>The scheme took advantage of the nature of the human voice. It required
> >
> > one
> >
> >>to have the means to inject a carrier (which was measured by
conventional
> >>means) and to look at the recovered audio on a scope.
> >>
> >> The old FMT had one measure CW signals. They were great fun.
> >>
> >> 73 Mac N8TT
> >>
> >>--
> >>J. Mc Laughlin; Michigan U.S.A.
> >>Home: JCM@Power-Net.Net

3384. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 07:46:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1li8n1h3al572vch7et1c4ubfpqps4snam@4ax.com>
Source record: 67781

On Thu, 10 Nov 2005 23:34:39 -0500, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

>Dear Richard:
>I too have given it a good try without much success. I think that I gave my
>(paper) copy to our library long ago. It probably disappeared is one of
>many purges. The Naval Postgraduate School indicates that they have two
>paper copies.
>
> I will try to remember details. The scheme worked.
>
> It just occurred to me to check for a Radio Amateur license:
>DAY JR, LUCIUS B, W5ZJZ (General)
>10306 W IDAHO PL
>LAKEWOOD, CO 80232-5019
>His age is about right.
>
> 73, Mac N8TT

Hi Mac,

Well, I remembered one link with Colorado in it:
http://skyraider.org/skyassn/gbookf250.html
which contains an entry (looks like a guest-book thing):
Name: Lucius Day
Website:
Referred by: Just Surfed On In
From: Denver Colo area
Time: 1999-01-14 07:51:23
Comments: Flew "Robinson" EA-1F's (VAW-13) Cubi, Kittyhawk,
Ranger, Saigon

These last comments make it appear this Lucius (of Colorado) was a
Navy pilot during the Vietnam era. loubd@day is the associated email
but the address is hardly complete and appears to be one of those
quick, dismissive entries to satisfy a login request.

73's
Richard Clark, KB7QHC

3385. Re: Coax Connector, Adapter, & Bulk Cable Catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 14:11:14 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <31303030383738354374A68294@zetnet.co.uk>
Source record: 67795

> For your free copy of our new catalog, please email sales@AAARFProducts.com
> or see www.aaarfproducts.com

> No minimum order.

> No handling charges.

> High quality and low cost.

Still waiting for mine from the beginning of the year, and my promised
disc. I wont hold my breath though.

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

3386. Re: Tape Measure Yagi Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 14:28:46 UTC
From: kevin@unseen.org
Message-ID: <1131719326.938268.317050@g43g2000cwa.googlegroups.com>
Source record: 67782

Hi Guys

I have to admit I am struggling a bit here. I looked at the scaling option, but the program you pointed to didn't seem to cover all the variables required to be scaled.

So, rather than admitting defeat I tried to build a 6 element using the dimensions from the k7mem link above using tape measure for the elements and a wooden boom. However I didn't know what to do for the driven element, both in terms of width (how big a gap in the middle and how does this alter the overall width of the element) and matching network. Currently I have about a 1 inch air gap, which makes the total width about 1" wider but the width of metal is the same (I don't know which is relevant?). Currently I have no matching network of any kind, just connected straight to the coax.

This doesn't work, it is probably worse than a rubber duck! So, I'm after some help please, what should I do for driven element width and matching, and what should I do about element widths and spacings (I can redo them if I need to)?

Thanks in advance.
Cheers
Kev

3387. Am reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 14:35:15 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <11n9b1ak6fquaaa@corp.supernews.com>
Source record: 67783

Pardon me if this is the wrong group to find some answers. I'm using a GE Superadio III and would like to receive 2 frequencies. AM670 from Chicago and AM1070 from Indianapolis predominantly night time listening. I work inside a factory and can't receive either of these unless I get near an outside window or go outside.

I'm considering buying a tuned loop for these 2 frequencies from http://www.amradioantennas.com/. He's quoted me a price of 85 us$ including shipping and insurance. Does anyone have experience with this type of tuned loop antennae. I've ran RGU-6 coax from my office to the factory roof, (appx.75ft) as I doubt if the loop would pull these in from inside my office which is inside the factory.

Is there a less expensive alternative than the loop since I have coax installed ?

Thanks
Jeff

3388. Re: Am reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 14:47:40 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <ga2df.6412$Y61.1050@newssvr33.news.prodigy.com>
Source record: 67784

Jeff,
I think the first thing I'd try would be to just add a length of
wire to the end of the cable on the roof. If It does any good, add a
longer length of wire and see what happens. Is it a 'cure-all'? Nope,
but certainly easier/cheaper/faster than getting a loop antenna...
'Doc

3389. Re: Am reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 16:03:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Kh3df.15229$q%.1063@newssvr12.news.prodigy.com>
Source record: 67785

Jeff Dieterle wrote:
> Is there a less expensive alternative than the loop since I have coax
> installed ?

Just tie an external wire to the coax center
conductor and try it - may not work but it
doesn't cost much to try.
--
73, Cecil, http://www.qsl.net/w5dxp

3390. Re: Am reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 16:45:10 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <m8i9n1tt1lt8p1cqp8ldstp2mv17pbn52h@4ax.com>
Source record: 67786

On Fri, 11 Nov 2005 09:35:15 -0500, "Jeff Dieterle"
<jdieter@nospam.carlnet.org> wrote:

>Pardon me if this is the wrong group to find some answers. I'm using a GE
>Superadio III and would like to receive 2 frequencies. AM670 from Chicago
>and AM1070 from Indianapolis predominantly night time listening. I work
>inside a factory and can't receive either of these unless I get near an
>outside window or go outside.
>
>I'm considering buying a tuned loop for these 2 frequencies from
>http://www.amradioantennas.com/. He's quoted me a price of 85 us$ including
>shipping and insurance. Does anyone have experience with this type of tuned
>loop antennae.

I have a similar loop from C.Crane company. It works well. But these
loops need to be in close proximity to the radio's built-in antenna.
Simply putting the loop up on the roof at the end of the coax won't do
any good. Using the loop indoors, inside the factory, would be a crap
shoot... don't think it would be worth the $85. I'd look at some sort
of outdoor antenna, as others have suggested.

bob
k5qwg

> I've ran RGU-6 coax from my office to the factory roof,
>(appx.75ft) as I doubt if the loop would pull these in from inside my office
>which is inside the factory.
>
>Is there a less expensive alternative than the loop since I have coax
>installed ?
>
>Thanks
>Jeff
>

3391. Re: Am reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 17:00:18 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <C64df.914$vS4.541@trnddc01>
Source record: 67787

"Jeff Dieterle" <jdieter@nospam.carlnet.org> wrote in message
news:11n9b1ak6fquaaa@corp.supernews.com...
> Pardon me if this is the wrong group to find some answers. I'm using a GE
> Superadio III and would like to receive 2 frequencies. AM670 from Chicago
> and AM1070 from Indianapolis predominantly night time listening. I work
> inside a factory and can't receive either of these unless I get near an
> outside window or go outside.
>
> I'm considering buying a tuned loop for these 2 frequencies from
> http://www.amradioantennas.com/. He's quoted me a price of 85 us$
> including shipping and insurance. Does anyone have experience with this
> type of tuned loop antennae. I've ran RGU-6 coax from my office to the
> factory roof, (appx.75ft) as I doubt if the loop would pull these in from
> inside my office which is inside the factory.
>
> Is there a less expensive alternative than the loop since I have coax
> installed ?
>
> Thanks
> Jeff

Hi Jeff

The 75 feet of coax between the outside antenna and the radio will also be
a capacitor shunting the signal to ground across the front end of the
receiver. That can be a serious loss of signal at AM frequencies.
An amplifier on the roof is one solution.

It is fairly easy to build a loop so that concept can be evaluated prior
to spending the $85. You are aware that the tuned loop on the roof will
require the antenna to be adjusted for each of the two frequencies you want.
Is that practical for your application?

Jerry

3392. Re: Am reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 17:33:50 UTC
From: dxer@aol.com
Message-ID: <1131730430.536689.322880@g43g2000cwa.googlegroups.com>
Source record: 67788

Jeff Dieterle wrote:
I've ran RGU-6 coax from my office to the factory roof,
> (appx.75ft) as I doubt if the loop would pull these in from inside my office
> which is inside the factory.
>
> Is there a less expensive alternative than the loop since I have coax
> installed ?
>
> Thanks
> Jeff

Did you connect the coax to anything at all, or is it just coax
going outside to the roof,
Connecting it to the metal gutters or something like that might really
help the reception.
If there are no metal gutters or anything like that, connect a long
piece of wire to the center conductor of the coax and lay it out on the
roof.

You might also try just taking a piece of wire and connecting it to
the back of the GE SRIII, connect it to the AM screw terminal on the
back of the radio and take that wire over to the window and see if that
works, or you can continue that wire all the way from the back of the
radio all the way out to the roof.

I also remember something like winding wire around something like a
Quaker oatmeal container, contecting both ends of this wire to a small
air variable cap and just placing this antenna right behind the GE SR,
near its internal antenna. You can then tune the cap for peak reception
and then turn it and the radio to get the stations you want, this coil
of wire enhances the internal antenna of the GE SR.

Craig

3393. Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 19:36:56 UTC
From: dplatt@radagast.org
Message-ID: <11n9smon2j6q5d8@corp.supernews.com>
Source record: 67789

Does anybody have a copy of K1BQT's article from the Summer 1997 issue
of Communications Quarterly, on a method for constructing a 2-meter
extended double zepp antenna with a novel feed/matching arrangement?
If so, can I get a scanned copy somehow?

advTHANKSance!

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3394. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-11 22:43:27 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <je7an1t974ui3240r049u0vvfsiblvr6l9@4ax.com>
Source record: 67790

On Fri, 11 Nov 2005 19:36:56 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>Does anybody have a copy of K1BQT's article from the Summer 1997 issue
>of Communications Quarterly, on a method for constructing a 2-meter
>extended double zepp antenna with a novel feed/matching arrangement?
>If so, can I get a scanned copy somehow?
>
>advTHANKSance!

I dont have the article but Mr Cebik has written about it and how it
works. www.cebik.com/edz/edzfeed.html

I built a version for 6m and it's very good for simple wire and it
also resonates as a dipole at 17m.

Allison

3395. 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 01:01:32 UTC
From: "Chuck W." <cwyatt@w3minds.com>
Message-ID: <1131755996.202107.98090@z14g2000cwz.googlegroups.com>
Source record: 67791

Is there any major advantage of mounting a Butternut vertical on top of my house which would put it around 45 feet versus ground mounting it? Seems like for years I've worked lots of stations with ground mounted verticals. So long as I've got lots of radials I would have a low angle of radiation, yes?

Thanks,

Chuck
W1CEW

3396. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 01:10:25 UTC
From: Walter Maxwell <w2du@earthlink.net>
Message-ID: <73gan1tsu86k3ddf3k3sc0eism1imc6pbf@4ax.com>
Source record: 67792

On Fri, 11 Nov 2005 19:36:56 -0000, dplatt@radagast.org (Dave Platt) wrote:

>Does anybody have a copy of K1BQT's article from the Summer 1997 issue
>of Communications Quarterly, on a method for constructing a 2-meter
>extended double zepp antenna with a novel feed/matching arrangement?
>If so, can I get a scanned copy somehow?
>
>advTHANKSance!

Hi Dave,

I have the CommQuart issue that has Rick's article. However, it's the Fall issue, not the summer. I'm in the process of scanning it for you. Give me a few minutes. Is the mail address shown above the correct one for email?

Walt, W2DU

3397. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 01:35:12 UTC
From: dplatt@radagast.org
Message-ID: <11nahmge5b43ndc@corp.supernews.com>
Source record: 67793

>Hi Dave,
>
>I have the CommQuart issue that has Rick's article. However, it's the Fall
>issue, not the summer. I'm in the process of scanning it for you. Give me a few
>minutes. Is the mail address shown above the correct one for email?

Hi, Walt! I just received the article I was thinking of (pages 104
and 106 of the Summer '97 Communications Quarterly) from another ham.

If that's the same article you have, then no need to send it. If
there's another version in the Fall '97 issue which is different, then
I'd love to have it as well.

The EDZ described in the Summer issue is an interesting one. It's a
lot lighter in weight than the only other 2-meter EDZ plans I've seen
(the latter being a copper-pipe variety with a different matching
and balun arrangement).

Both look like useful designs, although since they're long and require
side-mounting from a mast or tower they're probably less convenient
for home use than ground-plane or J-pole antennas.

Yes, my email address is correct.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3398. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 03:04:05 UTC
From: Nick Kennedy <wa5bdu@yahoo.com>
Message-ID: <BWcdf.2375$ih5.1677@dukeread11>
Source record: 67794

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11n7loiiljqs9af@corp.supernews.com...
> Here is the title and author's name:
> A method for accurate receiver tuning and precise measurement of the
carrier
> frequency of voice-modulated, suppressed-carrier, single-sideband radio
> signals
> Day, Lucius Boyden.
>
> I do not know where it might be read on the WEB. 73 Mac N8TT

It sounds similar to a recent article. I see that in the July/August QEX there was an article called "A Blind Automatic Frequency Control Algorithm for Single Sideband" by Geissinger. I can't find that issue, so don't know it used Mr. Day's technique or not.

73--Nick, WA5BDU

3399. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 13:50:39 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11nbsoiiua7d8e5@corp.supernews.com>
Source record: 67796

Dear Nick: Fascinating. When you find the QEX article please report back.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Nick Kennedy" <wa5bdu@yahoo.com> wrote in message
news:BWcdf.2375$ih5.1677@dukeread11...
> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> news:11n7loiiljqs9af@corp.supernews.com...
> > Here is the title and author's name:
> > A method for accurate receiver tuning and precise measurement of the
> carrier
> > frequency of voice-modulated, suppressed-carrier, single-sideband radio
> > signals
> > Day, Lucius Boyden.
> >
> > I do not know where it might be read on the WEB. 73 Mac N8TT
>
>
> It sounds similar to a recent article. I see that in the July/August QEX
> there was an article called "A Blind Automatic Frequency Control Algorithm
> for Single Sideband" by Geissinger. I can't find that issue, so don't
know
> it used Mr. Day's technique or not.
>
> 73--Nick, WA5BDU
>
>

3400. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 17:29:35 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <11nc9k5k5cqsu0e@corp.supernews.com>
Source record: 67797

Chuck

Chuck W. wrote:
> Is there any major advantage of mounting a Butternut vertical on top of
> my house which would put it around 45 feet versus ground mounting it?
> Seems like for years I've worked lots of stations with ground mounted
> verticals. So long as I've got lots of radials I would have a low
> angle of radiation, yes?
>
> Thanks,
>
> Chuck
> W1CEW
>

I have used elevated 4-square vertical arrays and elevated verticals for years on 40 and 80 meters. Performance seems just fine on them. However one very serious issue remains, as far as my experience is concerned, for using them. You, MUST provide some decent lighting protection for them as to how to avoid the step voltage that appears on the whole system because of the elevated radial and feed point positions above ground during strikes and even nearby hits. Even a ten foot height above ground for a 40 meter vertical, with four tuned elevated radials at that height, is a huge voltage point up from true ground, considering the large RF currents in the strike. If your feed line is in any position to be involved in that elevated voltage position and can carry part of the strike dissapation back into your shack or home, you can really get hurt.

I found out a long time ago, that the best way to protect my equipment with elevated HF verticals is to carry the entire feed system back to ground level where I can incorporate Polyphaser or other gas tube protection at that same ground level I'm using to sink the strike at the arrays. Then I bring the feed line back to the physical structure at GROUND level with appropriate protection at the structure site entrance, sinked to ground as well there.

Since incorporating that technique, for many years now, and I take an average of a direct hit on my 80 meter array at least once every year or so, I never have lost anything on the HF station, even though it is on line 24X7 all the time, and some parts of it are remote operatable as well. With complete pig iron equipped industrial rack computer systems and so on, even they have survived completely for years now that way too. But not switching power supply stuff, as I've found out sadly.

I take more damage, whatever, from direct hits on the neighboring power lines that sink back to my facility good ground systems, at this point. The worst damage for years is oddly on the phone system lines. Even with protection at

the entrance point, there is still enough inductace ramp-up on these low level circuits, that I'll see blown fuses in the phone line protectors from time to time, and rarely, even yet, modem failures, even with that done!

Again, my best advice if you want to go your way with the big elevated vertical, is to carefully consider how to mitigate the strike effects for not only your ham gear, but the rest of the dwelling as well. Remember, even ten or twenty feet is a real length for getting surge voltage, when true ground is underneath it. And where things are connected at a junction point which can carry part of the surge current off on a 'parallel' path to a different ground sink point you might not have considered.

W5WQN

3401. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 17:56:57 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <J1qdf.116$3o6.78696@twister.southeast.rr.com>
Source record: 67798

The loop is a DC short and is very quiet. You can also feed it with a quarter wave section of 75 ohm coax using (quarter wave length x Velocity of coax) as the length of the matching section.

Good luck,

Bill, W4WNT
"Michael" <ndcoder@srt.com> wrote in message
news:11mvjfic11rdq9f@corp.supernews.com...
>I get a lot of noise from my random wire antenna. It transmits very well
>but is very noisy in receive. My neighbor put up a 280 foot loop antenna
>which he feeds with ladder line. He feeds the ladder line from a 4 to 1
>balun to coax. The coax comes from a tuner. His setup performs very well on
>all bands down to 75 meters. I went over to his shack last night and
>listened to his receiver on 75. I was really impressed with the lack of
>noise. I can safely say the difference in noise was profound. He has this
>loop surrounding his house at a 30 ft. height. It is arranged in a square.
>
> Has anybody else had this experience with loops? It looks like I have room
> to put up a triangular loop. Will this work as well?
>
> Can I use the same tuner I have now and just feed a coax into a balun. Or,
> should I put the balun in the tuner and come straight out with ladder
> line? There is a lot of room in this tuner. It is an old remote controlled
> tuner surplused from a ship.
>

3402. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 18:29:17 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns970C6AAFF38DEdoldridgsprintca@24.71.223.159>
Source record: 67799

"Michael" <ndcoder@srt.com> wrote in
news:11mvjfic11rdq9f@corp.supernews.com:

> I get a lot of noise from my random wire antenna. It transmits very
> well but is very noisy in receive. My neighbor put up a 280 foot loop
> antenna which he feeds with ladder line. He feeds the ladder line from
> a 4 to 1 balun to coax. The coax comes from a tuner. His setup
> performs very well on all bands down to 75 meters. I went over to his
> shack last night and listened to his receiver on 75. I was really
> impressed with the lack of noise. I can safely say the difference in
> noise was profound. He has this loop surrounding his house at a 30
> ft. height. It is arranged in a square.
>
> Has anybody else had this experience with loops? It looks like I have
> room to put up a triangular loop. Will this work as well?
>
> Can I use the same tuner I have now and just feed a coax into a balun.
> Or, should I put the balun in the tuner and come straight out with
> ladder line? There is a lot of room in this tuner. It is an old remote
> controlled tuner surplused from a ship.

Michael, a horizontal full-wave loop is actually quite a good choice for LOCAL networking on 75m. The feedpoint impedance will depend somewhat on the distance above ground and on the quality of the ground but should range between about 200 ohms down to as low as about 50 (or even lower if your ground is good). The shape of the loop is not all that important and, if it's symmetric, the feedpoint can be anywhere. The ideal height would be about 65 feet, but lower will still work well.

The radiation characteristic of an antenna like this is horizontal polarization but with the main lobe directly skyward (which is actually a good thing on 75m for LOCAL work). It does this, of course, at the expense of radiation at low angles, so it is not a useful DX antenna (though it may outperform a dipole at the same height). Being a loop, it is also somewhat immune to near-field electrostatic interference such as from nearby power lines (which may account for the lower noise pickup).

--
Dave Oldridge+
ICQ 1800667

3403. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 18:37:24 UTC
From: CA <no@mail.com>
Message-ID: <EDqdf.37992$d5.194763@newsb.telia.net>
Source record: 67800

"Mike Luther" <mike.luther@ziplog.com> skrev i meddelandet
news:11nc9k5k5cqsu0e@corp.supernews.com...
> Chuck
>
> Chuck W. wrote:
>> Is there any major advantage of mounting a Butternut vertical on top of
>> my house which would put it around 45 feet versus ground mounting it?
>> Seems like for years I've worked lots of stations with ground mounted
>> verticals. So long as I've got lots of radials I would have a low
>> angle of radiation, yes?
>>
>> Thanks,
>>
>> Chuck
>> W1CEW
>>

Check this page:
http://www.qsl.net/df3lp/projects/vertical/index.html

"Do not mount groundplane antennas at heights between 0.25 and 1.25 wavelength. At those levels above ground most of the energy will be radiated at angles of 27° to 45° into the ionosphere. This phenomenon seems to be independent to the number of radials or other counterpoises. Further simulations indicates that this is true for all other variants of vertical antenna systems too. "

73
SM6PXJ Chris

3404. Re: Mythbusters: The G5RV on 12m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 18:51:33 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns970C6E7654A89doldridgsprintca@24.71.223.159>
Source record: 67801

Cecil Moore <mycall@arrl.net> wrote in news:TsS4f.2685$BZ5.384
@newssvr13.news.prodigy.com:

> The myth: "Contrary to oft stated views, the Classic G5RV is not
> an all band antenna, it: does not have acceptable feed performance
> on any WARC bands;" Quoted from: http://www.vk1od.net/G5RV/
>
> 12m is a WARC band. The standard G5RV performs very well on 12m
> band. Therefore, the above statement is a myth. (Hey, this silly
> myth game is actually fun.) :-)

As I explained one night (on 75m from Halifax) to G5RV, his antenna is
essentially a dipole of non-resonant length with a mismatched feedline that
is used as a tuning section. My preferred method of using antennas of that
nature is to put a 300ohm line on the feedpoint and simply tune it in the
shack with a good, balanced tuner. The antenna will then perform well on
any frequency the tuner can match.

--
Dave Oldridge+
VA7CZ
ICQ 1800667

3405. Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 18:59:30 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns970C6FCF481CEdoldridgsprintca@24.71.223.159>
Source record: 67802

I've been seeing pictures of these weird antennas for years. Near as I can tell from the picture, it's essentially a heavily-loaded very short dipole with two large capacity hats at the ends. But it's impossible to tell from the pictures what the exact configuration is. Can anyone tell me exactly what's happening? Is the mast part of the radiating system? The feedline? The literature (including the manuals) sort of implies that it is.

Also, from the pictures, I get the impression that the standard mast-mount configuration is mostly vertically polarized. This would certainly account for reports I have read that the antenna is a bit of a dud at short range on 80m.

If someone has a computer model for it for MMHAMSOFT's modeller, that would be GREAT!

The reason I'm asking is that I'm in the process of trying to design something really low profile for a second floor apartment balcony for 75 and 80m.

--
Dave Oldridge+
VA7CZ
ICQ 1800667

3406. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 20:31:46 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Sisdf.26121$6e1.21476@newssvr14.news.prodigy.com>
Source record: 67803

If you can get a copy of the November, 2005 "World Radio", check out
"Kurt N Sturba"'s column, under "Aerials", on pg.55.-- he no dummy
when coms to antennas, ect, and hides behind that nome d'plume to avoid
conflicts with finger pointers. Tho on these antennas, a couple hundred
words, but informative. In essence, he sez that these are very lossey,
That a dipole (66 ft) on 40 meters would have a given bandwidth, IF
the Isotron had the same effeciency for it's size, it would have a band-
width of about 11 KHz. What it really has is a bandwidth of around 400
KHz this results in a signal about 2 "S" units , or 12 dB down from
THAT reference dipole. In other words, there are better more effecient
ways of radiating a signal! As information-- Jim NN7K

Dave Oldridge wrote:
> I've been seeing pictures of these weird antennas for years. Near as I can
> tell from the picture, it's essentially a heavily-loaded very short dipole
> with two large capacity hats at the ends. But it's impossible to tell from
> the pictures what the exact configuration is. Can anyone tell me exactly
> what's happening? Is the mast part of the radiating system? The feedline?
> The literature (including the manuals) sort of implies that it is.
>
> Also, from the pictures, I get the impression that the standard mast-mount
> configuration is mostly vertically polarized. This would certainly account
> for reports I have read that the antenna is a bit of a dud at short range
> on 80m.
>
> If someone has a computer model for it for MMHAMSOFT's modeller, that would
> be GREAT!
>
> The reason I'm asking is that I'm in the process of trying to design
> something really low profile for a second floor apartment balcony for 75
> and 80m.
>

3407. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 20:58:09 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <BHsdf.531264$x96.259850@attbi_s72>
Source record: 67804

Gee, I'm sorry to hear that. I was hoping that you could get something for
nothing. :-)
-- John, N9JG

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:Sisdf.26121$6e1.21476@newssvr14.news.prodigy.com...
> If you can get a copy of the November, 2005 "World Radio", check out
> "Kurt N Sturba"'s column, under "Aerials", on pg.55.-- he no dummy
> when coms to antennas, ect, and hides behind that nome d'plume to avoid
> conflicts with finger pointers. Tho on these antennas, a couple hundred
> words, but informative. In essence, he sez that these are very lossey,
> That a dipole (66 ft) on 40 meters would have a given bandwidth, IF
> the Isotron had the same effeciency for it's size, it would have a band-
> width of about 11 KHz. What it really has is a bandwidth of around 400
> KHz this results in a signal about 2 "S" units , or 12 dB down from
> THAT reference dipole. In other words, there are better more effecient
> ways of radiating a signal! As information-- Jim NN7K
>

3408. W9INN antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 21:05:04 UTC
From: Steve <sahd@hotmail.com>
Message-ID: <78ydnb1E5L2fxOveRVn-gg@comcast.com>
Source record: 67805

I have a Alpha Delta DX-A 40 80 and 160 antenna, feed point
is up 35 ft. I an comparing it to a W9INN 40 80 160 and it's only up
28ft.

My question is when running a ballun as the W9INN antenna does.
Can it be hung right to the tower leg or should it be on a stand off.
To keep it away from the tower legs buy 3 ft.

The Alpha Delta DX-A wants to be hooked right to the tower leg.

There seems to be no difference between the both antennas
with the exception the W9INN antenna is set more to the middle of the
phone band for 40 80 and 160 were the Delta A is not .

TNX for any input.

Steve

3409. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 22:30:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <o2udf.16387$q%.14450@newssvr12.news.prodigy.com>
Source record: 67806

Dave Platt wrote:
> Does anybody have a copy of K1BQT's article from the Summer 1997 issue
> of Communications Quarterly, on a method for constructing a 2-meter
> extended double zepp antenna with a novel feed/matching arrangement?

Is it better than just feeding it with about 15 inches of ladder-line?
--
73, Cecil http://www.qsl.net/w5dxp

3410. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 22:38:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <p9udf.16388$q%.14729@newssvr12.news.prodigy.com>
Source record: 67807

Dave Oldridge wrote:
> The reason I'm asking is that I'm in the process of trying to design
> something really low profile for a second floor apartment balcony for 75
> and 80m.

A small one-turn loop is hard to beat.
--
73, Cecil http://www.qsl.net/w5dxp

3411. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 23:00:14 UTC
From: dplatt@radagast.org
Message-ID: <11ncsvuf54l4v46@corp.supernews.com>
Source record: 67808

In article <o2udf.16387$q%.14450@newssvr12.news.prodigy.com>,
Cecil Moore <mycall@arrl.net> wrote:

>> Does anybody have a copy of K1BQT's article from the Summer 1997 issue
>> of Communications Quarterly, on a method for constructing a 2-meter
>> extended double zepp antenna with a novel feed/matching arrangement?

>Is it better than just feeding it with about 15 inches of ladder-line?

Better? Dunno - maybe so, maybe no.

The K1BQT design creates an EDZ using a pair of 38"-or-so rods or
whips, and two just-under-10" lengths of RG-58 solid-core coax
(conductor and braid shorted at the outer end, braid left open at the
center where the antenna connects to the feedline). The lengths of
RG-58 act as inductive stubs, cancelling out the capacitive reactance
of the radiators; the lengths of the rods/whips are adjusted to yield
a 50-ohm-per-side resistive impedancea at the feedpoint. The
resulting 100-ohm impedance is matched to the feedline by a 3/4-
wavelength piece of RG-59 75-ohm coax which is coiled around the
center support... it serves both as an impedance transformer and a
choke balun.

If I were going to feed a 5/4 with ladder line, for tower
side-mounting, I suppose I'd probably put the ladder line inside the
PVC support arm, and then connect it to some 50-ohm coax which was
wound around the outside of the arm to create a choke balun.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3412. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 23:31:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jXudf.18726$dO2.10596@newssvr29.news.prodigy.net>
Source record: 67809

Dave Platt wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>Is it better than just feeding it with about 15 inches of ladder-line?
>
> If I were going to feed a 5/4 with ladder line, for tower
> side-mounting, I suppose I'd probably put the ladder line inside the
> PVC support arm, and then connect it to some 50-ohm coax which was
> wound around the outside of the arm to create a choke balun.

Cebik's stuff is probably for HF. EZNEC sez an 8 foot long, one
inch diameter dipole at 36 ft. height has a feedpoint impedance
of 86-j91 on 146 MHz. Heck, that's already better than some rubber
duckies. All it takes to resonate that impedance to a 50 ohm SWR
of about 1.6:1 is about 2.5 inches of 450 ohm ladder-line in
series. What could possibly be simpler than that?
--
73, Cecil http://www.qsl.net/w5dxp

3413. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 23:46:49 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <J9vdf.11022$BZ5.1804@newssvr13.news.prodigy.com>
Source record: 67810

THAT was also quoted in the same article I stated. But would think a mobile antenna (this on second floor apt.), and a tripod mount, with radials for a counterpoise over a balcony (at night) would be much more effective than this dawg! think mfj or another outfit has the setup for this --- (maybe Outbacker, and that NOT that great)! Jim nn7k

Cecil Moore wrote:
> Dave Oldridge wrote:
>
>> The reason I'm asking is that I'm in the process of trying to design
>> something really low profile for a second floor apartment balcony for
>> 75 and 80m.
>
>
> A small one-turn loop is hard to beat.

3414. Re: W9INN antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-12 23:53:32 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <veydncCX_NgfHeveRVn-sA@comcast.com>
Source record: 67811

"Steve" <sahd@hotmail.com> wrote in message
news:78ydnb1E5L2fxOveRVn-gg@comcast.com...
>I have a Alpha Delta DX-A 40 80 and 160 antenna, feed point
> is up 35 ft. I an comparing it to a W9INN 40 80 160 and it's only up
> 28ft.
>
> My question is when running a ballun as the W9INN antenna does.
> Can it be hung right to the tower leg or should it be on a stand off.
> To keep it away from the tower legs buy 3 ft.
>
> The Alpha Delta DX-A wants to be hooked right to the tower leg.
>
>
> There seems to be no difference between the both antennas
> with the exception the W9INN antenna is set more to the middle of the
> phone band for 40 80 and 160 were the Delta A is not .
>
> TNX for any input.
>
> Steve
>
Steve -

When I used a push up tower for my inverted V ... I used a stand-off similar to the IIX SO-1 standoff bracket -- to get the antenna away from the push up pole and another tower.

IIX Equipment has pre-made assemblies that will work with most towers.
http://www.w9iix.com/ii00025.htm

http://www.w9iix.com/ii00012.htm

w9gb

3415. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 00:17:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ICvdf.11028$BZ5.5241@newssvr13.news.prodigy.com>
Source record: 67812

Jim - NN7K wrote:
> THAT was also quoted in the same article I stated. But would think a
> mobile antenna (this on second floor apt.), and a tripod mount, with
> radials for a counterpoise over a balcony (at night) would be much more
> effective than this dawg!

Yes, more effective than the Isotron but disappointing, nevertheless
(been there done that). A balcony-mounted mobile screwdriver is still
pretty far down from a properly designed small loop on 75m. However,
a vertical longer than a mobile screwdriver would be something worth
considering. I think HighSierra has one of those.
--
73, Cecil http://www.qsl.net/w5dxp

3416. coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 00:41:36 UTC
From: inagaddadavida@webtv.net
Message-ID: <11202-43768BC0-603@storefull-3258.bay.webtv.net>
Source record: 67814

what coax is good to 900mhz? i am looking for something as thin and supple as i can find. i tried a hunk of coax off of an old cb antenna (wishful thinking) with no luck. should this work? or is hf coax no good at 900 mhz? i built a ten element yagi off a plan i found on the net. it should be a rocket ship but its not as good as a wide band rubber ducky that i have. i am trying to receive a 900mhz wireless microphone from a distance of about 200 yards. any ideas?

3417. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 00:54:09 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <4n3dn1t61erk7dlnbb9mtp8c7q70vor29q@4ax.com>
Source record: 67813

On Sat, 12 Nov 2005 22:30:44 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Dave Platt wrote:
>> Does anybody have a copy of K1BQT's article from the Summer 1997 issue
>> of Communications Quarterly, on a method for constructing a 2-meter
>> extended double zepp antenna with a novel feed/matching arrangement?
>
>Is it better than just feeding it with about 15 inches of ladder-line?

No perfomance difference. Construction difference may favor one of
the other.

Allison

3418. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 00:57:47 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <eo3dn11u11lsp7oatq7v2tp8m0m1chojg2@4ax.com>
Source record: 67815

On Sat, 12 Nov 2005 23:31:27 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Dave Platt wrote:
>
>> Cecil Moore <mycall@arrl.net> wrote:
>>>Is it better than just feeding it with about 15 inches of ladder-line?
>>
>> If I were going to feed a 5/4 with ladder line, for tower
>> side-mounting, I suppose I'd probably put the ladder line inside the
>> PVC support arm, and then connect it to some 50-ohm coax which was
>> wound around the outside of the arm to create a choke balun.
>
>Cebik's stuff is probably for HF. EZNEC sez an 8 foot long, one
>inch diameter dipole at 36 ft. height has a feedpoint impedance
>of 86-j91 on 146 MHz. Heck, that's already better than some rubber
>duckies. All it takes to resonate that impedance to a 50 ohm SWR
>of about 1.6:1 is about 2.5 inches of 450 ohm ladder-line in
>series. What could possibly be simpler than that?

With EDZ or it's evil twin in the other plane the 5/8 wave the
electrical length affects feed point R while the X is fairly large.
So you use some form of matching magic to transform that
unrulely X to R and thereby a match to a 50 ohm source and line.

If you looked at the Cebik article you will see how and why
plus it's result at 2m. I scaled his work for 6m and it worked
to the the decimal point.

Allison
KB1GMX

3419. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 01:04:38 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <NeadnWNIla5KDevenZ2dnUVZ_tidnZ2d@bright.net>
Source record: 67816

1/2" Superflex (FS4J-50B) is pretty low loss at 900 MHz, but it ain't exactly supple. How long is the coax run? RG-142 might be OK for semi-short runs and is fairly flexible (about the same size as RG-58)...

Scott

Jim wrote:

> what coax is good to 900mhz? i am looking for something as thin and
> supple as i can find. i tried a hunk of coax off of an old cb antenna
> (wishful thinking) with no luck. should this work? or is hf coax no
> good at 900 mhz? i built a ten element yagi off a plan i found on the
> net. it should be a rocket ship but its not as good as a wide band
> rubber ducky that i have. i am trying to receive a 900mhz wireless
> microphone from a distance of about 200 yards. any ideas?
>

3420. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 01:16:08 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns970CAFAA9E792doldridgsprintca@24.71.223.159>
Source record: 67817

Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in news:J9vdf.11022
$BZ5.1804@newssvr13.news.prodigy.com:

> THAT was also quoted in the same article I stated. But would think a
> mobile antenna (this on second floor apt.), and a tripod mount, with
> radials for a counterpoise over a balcony (at night) would be much more
> effective than this dawg! think mfj or another outfit has the setup for
> this --- (maybe Outbacker, and that NOT that great)! Jim nn7k

Actually, I *am* thinking outbacker or MFJ. The balcony is large and
aluminum-railed, which should actually form a decent counterpoise if it
doesn't blast my sat. TV and 2m stuff all to heck.

I just wondered what the theory is with the isotron. If it's actually
exciting its mast (as some antennas do), then maybe I could use a similar
technique to excite the balcony rail itself.

A loop is not out of the question either, but to be at all efficient, it
would have to be made of 1" or even 2" copper pipe.

--
Dave Oldridge+
ICQ 1800667

3421. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 01:20:21 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns970CB0616A546doldridgsprintca@24.71.223.159>
Source record: 67818

Scott <acepilot@bloomer.net> wrote in
news:NeadnWNIla5KDevenZ2dnUVZ_tidnZ2d@bright.net:

> 1/2" Superflex (FS4J-50B) is pretty low loss at 900 MHz, but it ain't
> exactly supple. How long is the coax run? RG-142 might be OK for
> semi-short runs and is fairly flexible (about the same size as RG-58)...

Or if the system can play at 75 ohms, satellite TV grade RG6 is pretty fair
and cheap to buy.

--
Dave Oldridge+
ICQ 1800667

3422. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 01:51:21 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <o24dn1h051gvrri202chs55o07p87m0jel@4ax.com>
Source record: 67819

On Sat, 12 Nov 2005 19:41:36 -0500, inagaddadavida@webtv.net (Jim)
wrote:

>what coax is good to 900mhz? i am looking for something as thin and
>supple as i can find. i tried a hunk of coax off of an old cb antenna
>(wishful thinking) with no luck. should this work? or is hf coax no
>good at 900 mhz? i built a ten element yagi off a plan i found on the
>net. it should be a rocket ship but its not as good as a wide band
>rubber ducky that i have. i am trying to receive a 900mhz wireless
>microphone from a distance of about 200 yards. any ideas?

Unless you go for exotica thin low loss coax at 900mhz is a
contradiction in terms.

RG58 at 900mhz is a dummy load after about 15ft. (20db/100ft)
Belden 9914 is around 8db/100ft (.400inch size)

RG8X is a low loss .242" cable thats only 12db/100 at 900mhz
so if you use that and stay under 20ft the loss should be be under
3db still lossy but manageable. Generally if you want low loss cable
at 900mhz you are talking about fat or very expensive cables.

Allison
KB1GMX

3423. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 02:05:32 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <Mbxdf.531816$x96.524514@attbi_s72>
Source record: 67820

If you might consider a loop antenna, check out two electronic books, which are produced by antenneX Online Magazine. The two books are "The Loop Book" by Ted Hart, W5QJR, and "Small Magnetic Loops, Construction & Use" from antenneX. See
http://www.antennex.com/Sshack/loopbk.htm
http://www.antennex.com/Sshack/newloop.htm
John, N9JG

"Dave Oldridge" <doldridg@leavethisoutshaw.ca> wrote in message news:Xns970CAFAA9E792doldridgsprintca@24.71.223.159...
> Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in news:J9vdf.11022
> $BZ5.1804@newssvr13.news.prodigy.com:
>
>> THAT was also quoted in the same article I stated. But would think a
>> mobile antenna (this on second floor apt.), and a tripod mount, with
>> radials for a counterpoise over a balcony (at night) would be much more
>> effective than this dawg! think mfj or another outfit has the setup for
>> this --- (maybe Outbacker, and that NOT that great)! Jim nn7k
>
> Actually, I *am* thinking outbacker or MFJ. The balcony is large and
> aluminum-railed, which should actually form a decent counterpoise if it
> doesn't blast my sat. TV and 2m stuff all to heck.
>
> I just wondered what the theory is with the isotron. If it's actually
> exciting its mast (as some antennas do), then maybe I could use a similar
> technique to excite the balcony rail itself.
>
> A loop is not out of the question either, but to be at all efficient, it
> would have to be made of 1" or even 2" copper pipe.
>
>
> --
> Dave Oldridge+
> ICQ 1800667

3424. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 02:15:03 UTC
From: EasyRider <easyrider@shaw.ca>
Message-ID: <Hkxdf.492576$1i.9188@pd7tw2no>
Source record: 67821

Sound like your discribing my station setup. I also use a Delta loop in the shape of a diamond with the highest point at approximately 70 feet and the lowest opposite corner is about 40 feet, both above ground. Now it gets interesting as this set up is likely about 5 feet lower than the closest neighbouring amateur's basement floor is and I still out perform his inverted V. But the my loop is a full wave on 80 meters and I have a rather uneak piece of property. My soil is very good conductively and my ground happens to be a creek bed with a 8 inch water pipe submerged in the creek which runs all year round with about a foot of water over the pipe.
Also when I was looking for property I drove my van in to the property as far as I could and call CQ on my mobile hf. Made a contact in Glasglow, Moscow and Japan. I bought the property that afternoon. And I haven't stopped enjoying the bands even when we are at the low side of a cycle. I've also played with a number of antennas and always came back to the delta loop or a four square. I'm planning on putting up a full wave delta loop for 160 meters this spring. My present loop is hooted up to a homebrew 4:1 balun with 300 ohm foam then a 10 foot piece of 9913 coax to a At-180 Icom tuner to a IC-706MKIIG. On a bad night I can make contacts about the Mississippe to Hawai, on a good night Europe and the Globe. If you have the room they are one of the best antennas for the money invested. But you still have to have a good location and a good ground, if your missing either there isn't an antenna in the world that will help you. By the way I'm 147 feet above sea level and my closest neighbouring amateur is 177 feet and his antenna is 30 feet above that, but I still out preform him hands down on any and all bands.

Anyway this is what it's all about, haveing fun and making new friends.
73...de ve7agw, Al
Vancovuer Island, BC

"Michael" <ndcoder@srt.com> wrote in message
news:11mvjfic11rdq9f@corp.supernews.com...
>I get a lot of noise from my random wire antenna. It transmits very well
>but is very noisy in receive. My neighbor put up a 280 foot loop antenna
>which he feeds with ladder line. He feeds the ladder line from a 4 to 1
>balun to coax. The coax comes from a tuner. His setup performs very well on
>all bands down to 75 meters. I went over to his shack last night and
>listened to his receiver on 75. I was really impressed with the lack of
>noise. I can safely say the difference in noise was profound. He has this
>loop surrounding his house at a 30 ft. height. It is arranged in a square.
>
> Has anybody else had this experience with loops? It looks like I have room
> to put up a triangular loop. Will this work as well?
>
> Can I use the same tuner I have now and just feed a coax into a balun. Or,

> should I put the balun in the tuner and come straight out with ladder
> line? There is a lot of room in this tuner. It is an old remote controlled
> tuner surplused from a ship.
>

3425. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 02:17:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <mc8dn11j25l7iibsnp15th0f49t2ddg74a@4ax.com>
Source record: 67822

On Sat, 12 Nov 2005 19:41:36 -0500, inagaddadavida@webtv.net (Jim)
wrote:

>what coax is good to 900mhz? i am looking for something as thin and
>supple as i can find. i tried a hunk of coax off of an old cb antenna
>(wishful thinking) with no luck. should this work? or is hf coax no
>good at 900 mhz? i built a ten element yagi off a plan i found on the
>net. it should be a rocket ship but its not as good as a wide band
>rubber ducky that i have. i am trying to receive a 900mhz wireless
>microphone from a distance of about 200 yards. any ideas?

LMR195 uses the same connectors as RG58, and has about 11dB loss /
100' at 900 MHz. You should find it stocked in the WLAN outlets, with
or without connectors.

Another thought is to salvage some foil/foam RG58 style cable from a
car mobile phone antenna.

Owen
--

3426. Stacking Distance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 02:22:52 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11nd8rpkt9722e1@corp.supernews.com>
Source record: 67823

I'm putting up a VHF and UHF antenna and I am curious how apart they have to be on the mast. I have no clue. Is there a rule of thumb?

Thanks,

Rod KI7CQ

3427. Re: Stacking Distance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 03:41:16 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <3Bydf.311$MN.203@fed1read07>
Source record: 67824

Rod - see ARRL advice -- URL:
http://www.arrl.org/tis/info/HTML/stacking-yagis/

--
CL -- I doubt, therefore I might be !

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11nd8rpkt9722e1@corp.supernews.com...
> I'm putting up a VHF and UHF antenna and I am curious how apart they have
> to be on the mast. I have no clue. Is there a rule of thumb?
>
> Thanks,
>
> Rod KI7CQ
>
>

3428. Re: Stacking Distance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 04:30:32 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11ndgb9fm0vdne5@corp.supernews.com>
Source record: 67825

I checked out the article. Thanks.

Rod

3429. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 04:55:41 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11ndhpe49afmb09@corp.supernews.com>
Source record: 67726

What I find amazing is that "Michael" leaves the impression that he is in ND
when his neighbor W0BBM is in north central Kansas with two whole states in
between. It gives a whole new meaning to "neighbor."
Hard to compare antennas when the neighboring antennas are so far apart.
73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

"Michael" <ndcoder@srt.com> wrote in message
news:11n47fl21h8li6e@corp.supernews.com...
> I appreciate all the comments very much. A folded dipole would be easier
for
> me. I will discuss this with my neighbor W0BBN. He has been using a loop
for
> 20 years. It sounds like it is hard to go wrong if you are willing to put
> out the work for a loop antenna. I have been away from low band work since
> I started college. That has been very very long ago. I had never hear of a
> loop antenna back in the 50s. There was no internet and other hams were
few
> and far between where I lived in the country.
>
>

3430. Re: W9INN antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 13:00:00 UTC
From: BillJ <w3fi@nwboronet.com>
Message-ID: <oNGdf.221$RZ3.1891@eagle.america.net>
Source record: 67727

Steve wrote:
> I have a Alpha Delta DX-A 40 80 and 160 antenna, feed point
> is up 35 ft. I an comparing it to a W9INN 40 80 160 and it's only up
> 28ft.
>
> My question is when running a ballun as the W9INN antenna does.
> Can it be hung right to the tower leg or should it be on a stand off.
> To keep it away from the tower legs buy 3 ft.
>
> The Alpha Delta DX-A wants to be hooked right to the tower leg.
>
>
> There seems to be no difference between the both antennas
> with the exception the W9INN antenna is set more to the middle of the
> phone band for 40 80 and 160 were the Delta A is not .
>
> TNX for any input.
>
> Steve
>
>
>
>
Are you saying the INN works better than the DX-A?

3431. Re: W9INN antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 13:20:52 UTC
From: Steve <sahd@hotmail.com>
Message-ID: <5YOdnQWbaPMnoOreRVn-iQ@comcast.com>
Source record: 67728

"BillJ" <w3fi@nwboronet.com> wrote in message
news:oNGdf.221$RZ3.1891@eagle.america.net...
> Steve wrote:
>> I have a Alpha Delta DX-A 40 80 and 160 antenna, feed point
>> is up 35 ft. I an comparing it to a W9INN 40 80 160 and it's only up
>> 28ft.
>>
>> My question is when running a ballun as the W9INN antenna does.
>> Can it be hung right to the tower leg or should it be on a stand off.
>> To keep it away from the tower legs buy 3 ft.
>>
>> The Alpha Delta DX-A wants to be hooked right to the tower leg.
>>
>>
>> There seems to be no difference between the both antennas
>> with the exception the W9INN antenna is set more to the middle of the
>> phone band for 40 80 and 160 were the Delta A is not .
>>
>> TNX for any input.
>>
>> Steve
>>
>>
> Are you saying the INN works better than the DX-A?

The INN is a lot easer to tune for band. But for signal reports
they both seem the same. I had a friend follow me around to all bands
to compare and they both seemed the same.

My question was about the feed point. Should it be on a stand off
on the tower to get the balun away from the tower ?

Steve

If you listen around the bands you hear talk about the INN wire
antenna. You can't get them anymore because the guy passed away.

3432. Re: Asking for owner comments - LDG AT-1000 Auto Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 14:45:59 UTC
From: frank@electronicinstrument.com
Message-ID: <1131893159.821813.108850@g47g2000cwa.googlegroups.com>
Source record: 67729
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Hey Charlie,
I have a few of them. One in my truck has about 200,000 miles on it,
from a few Ford Explorers...
It seems to tune well. My antenas are typically bug catchers but also
have one in my Chrysler LXI minivan. A great little tuner. I would
also look at the MFJ, but I have not personally seen or tried it.
Frank KG9H

3433. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 15:33:42 UTC
From: Kip W6KIP <w6kip@kipwilliams.com>
Message-ID: <1131896022.061849.35660@z14g2000cwz.googlegroups.com>
Source record: 67730

Dave Oldridge wrote:
> If someone has a computer model for it for MMHAMSOFT's modeller, that would
> be GREAT!

I've been looking for an EZNEC model of the Isotron for the past 6 months, Dave. I haven't found anybody who has modeled one. I understand the Isotron is "lossy" and "nothing but radiating feedline" but it would still be interesting to see it on a grid or check the numbers in NEC. And - just like every antenna, you'll find people who use these things and love them, proving that "the best antenna is one that works for you". I've got to agree with what others are telling you. A small loop is the best performing antenna I've been able to find for my very challenging antenna environment. Other than the small bandwidth, I know it's working better than any inverted-vee or shortened dipole I've ever been able to get up amid the power lines and CATV cables here.

Good luck.

Kip W6KIP

3434. Re: W9INN antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 16:49:51 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <d42dnQ3gYKMv8-reRVn-sg@comcast.com>
Source record: 67731

"Steve" <sahd@hotmail.com> wrote in message
news:5YOdnQWbaPMnoOreRVn-iQ@comcast.com...
>
> "BillJ" <w3fi@nwboronet.com> wrote in message
> news:oNGdf.221$RZ3.1891@eagle.america.net...
>> Steve wrote:
>>> I have a Alpha Delta DX-A 40 80 and 160 antenna, feed point
>>> is up 35 ft. I an comparing it to a W9INN 40 80 160 and it's only up
>>> 28ft.
>>>
>>> My question is when running a ballun as the W9INN antenna does.
>>> Can it be hung right to the tower leg or should it be on a stand off.
>>> To keep it away from the tower legs buy 3 ft.
>>>
>>> The Alpha Delta DX-A wants to be hooked right to the tower leg.
>>>
>>>
>>> There seems to be no difference between the both antennas
>>> with the exception the W9INN antenna is set more to the middle of the
>>> phone band for 40 80 and 160 were the Delta A is not .
>>>
>>> TNX for any input.
>>>
>>> Steve
>>>
>>>
>> Are you saying the INN works better than the DX-A?
>
> The INN is a lot easer to tune for band. But for signal reports
> they both seem the same. I had a friend follow me around to all bands
> to compare and they both seemed the same.
>
> My question was about the feed point. Should it be on a stand off
> on the tower to get the balun away from the tower ?
>
> Steve
>
> If you listen around the bands you hear talk about the INN wire
> antenna. You can't get them anymore because the guy passed away.
>
"The Guy" (W9INN) was William E. "Bill" Fanckboner, W9INN, of Mt Prospect,
Illinois, about 10 miles north of my QTH.

Bill was the sole proprietor of W9INN Antennas and died July 30, 2004. He was 80.
His daughter, Robin Randall, shortly after this death decided that the W9INN Antenna business would die with him. "Dad did all of the work by himself, so it is effectively out of business, he was the business." "He was working full time until a week prior to his death".
Refunds were mailed to those amateurs with existing orders.

A long-time ARRL member and supporter, Fanckboner turned his talents for radio and electronics into W9INN Antennas some three decades ago after working for Motorola, and he was a regular QST advertiser.
Fanckboner designed and hand-built custom antennas, including the MPD-5C-78, MPD-2 and MDX-8C "hideaway" dipoles, and, his daughter says, Fanckboner enjoyed a reputation within the amateur community for skilled workmanship and a friendly, helpful manner. A memorial service was held August 9, 2004. The family invites interested customers that memorial donations may be sent to the American Cancer Society in his name.

gb

3435. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 18:51:06 UTC
From: inagaddadavida@webtv.net
Message-ID: <18798-43778B1A-54@storefull-3255.bay.webtv.net>
Source record: 67732

thanks guys for your input! ok, forget about thin and supple. i need 50 ohm impedance coax at 900mhz into a uniden scanner(bnc connector) with a 15 foot run. what coax of any size is commonly available that would be suitable?

3436. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 19:51:21 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <ZOMdf.4496$Mr4.3854@trnddc08>
Source record: 67733

"Jim" <inagaddadavida@webtv.net> wrote in message
news:18798-43778B1A-54@storefull-3255.bay.webtv.net...
> thanks guys for your input! ok, forget about thin and supple. i need 50
> ohm impedance coax at 900mhz into a uniden scanner(bnc connector) with a
> 15 foot run. what coax of any size is commonly available that would be
> suitable?

Hi Jim

I wonder why you would not use the RG-6 as suggested by Dave Oldridge.
Even Home Depot has the cable and the BNCs for it.
RG-6 is good transmission line at 900 MHz.

I submit that nothing in the system from the antenna all the way to the
receiver will be 50 ohms, no matter what transmission line you choose.

Jerry

3437. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 19:56:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <bUMdf.11126$BZ5.1787@newssvr13.news.prodigy.com>
Source record: 67734

Jim wrote:
> thanks guys for your input! ok, forget about thin and supple. i need 50
> ohm impedance coax at 900mhz into a uniden scanner(bnc connector) with a
> 15 foot run. what coax of any size is commonly available that would be
> suitable?

LMR-1700 looks pretty good on the loss charts. It's about
$10 per foot, 1.67 inch diameter - not sure about the BNC
connector :-)
--
73, Cecil http://www.qsl.net/w5dxp

3438. Re: W9INN antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 20:43:40 UTC
From: Steve <sahd@hotmail.com>
Message-ID: <aOCdnU53n9AcOOreRVn-pg@comcast.com>
Source record: 67735

Still no input on my question. The feed point at the balun. should it be
off the tower on a stand off
or is it ok to just hang it off a leg of the tower.

"Guess Someone is upset " The Guy Bill" Witch never knew so the Guy or ham
is what i call him.
If you knew him then Bill to you.

Steve

"gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:d42dnQ3gYKMv8-reRVn-sg@comcast.com...
> "Steve" <sahd@hotmail.com> wrote in message
> news:5YOdnQWbaPMnoOreRVn-iQ@comcast.com...
>>
>> "BillJ" <w3fi@nwboronet.com> wrote in message
>> news:oNGdf.221$RZ3.1891@eagle.america.net...
>>> Steve wrote:
>>>> I have a Alpha Delta DX-A 40 80 and 160 antenna, feed point
>>>> is up 35 ft. I an comparing it to a W9INN 40 80 160 and it's only up
>>>> 28ft.
>>>>
>>>> My question is when running a ballun as the W9INN antenna does.
>>>> Can it be hung right to the tower leg or should it be on a stand off.
>>>> To keep it away from the tower legs buy 3 ft.
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>>>> The Alpha Delta DX-A wants to be hooked right to the tower leg.
>>>>
>>>>
>>>> There seems to be no difference between the both antennas
>>>> with the exception the W9INN antenna is set more to the middle of the
>>>> phone band for 40 80 and 160 were the Delta A is not .
>>>>
>>>> TNX for any input.
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>>>> Steve
>>>>
>>>>
>>> Are you saying the INN works better than the DX-A?
>>
>> The INN is a lot easer to tune for band. But for signal reports
>> they both seem the same. I had a friend follow me around to all bands
>> to compare and they both seemed the same.
>>
>> My question was about the feed point. Should it be on a stand off

>> on the tower to get the balun away from the tower ?
>>
>> Steve
>>
>> If you listen around the bands you hear talk about the INN wire
>> antenna. You can't get them anymore because the guy passed away.
>>
> "The Guy" (W9INN) was William E. "Bill" Fanckboner, W9INN, of Mt Prospect,
> Illinois, about 10 miles north of my QTH.
>
> Bill was the sole proprietor of W9INN Antennas and died July 30, 2004. He
> was 80.
> His daughter, Robin Randall, shortly after this death decided that the
> W9INN Antenna business would die with him. "Dad did all of the work by
> himself, so it is effectively out of business, he was the business." "He
> was working full time until a week prior to his death".
> Refunds were mailed to those amateurs with existing orders.
>
> A long-time ARRL member and supporter, Fanckboner turned his talents for
> radio and electronics into W9INN Antennas some three decades ago after
> working for Motorola, and he was a regular QST advertiser.
> Fanckboner designed and hand-built custom antennas, including the
> MPD-5C-78, MPD-2 and MDX-8C "hideaway" dipoles, and, his daughter says,
> Fanckboner enjoyed a reputation within the amateur community for skilled
> workmanship and a friendly, helpful manner. A memorial service was held
> August 9, 2004.
> The family invites interested customers that memorial donations may be
> sent to the American Cancer Society in his name.
>
> gb
>

3439. Re: W9INN antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 20:51:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <pHNdf.18996$dO2.2022@newssvr29.news.prodigy.net>
Source record: 67736

Steve wrote:
> Still no input on my question. The feed point at the balun. should it be
> off the tower on a stand off or is it ok to just hang it off a leg of the tower.

Is the balun mounted in an aluminum enclosure? If so, it's probably OK
to fasten it to the tower assuming the tower is not RF 'hot'.
--
73, Cecil http://www.qsl.net/w5dxp

3440. Re: W9INN antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 21:45:23 UTC
From: Steve <sahd@hotmail.com>
Message-ID: <mf-dnTs7pZxqLureRVn-uw@comcast.com>
Source record: 67737

It's a W2AU Balun that came with the antenna. I took a pulley and attached
it to the tower and then
took a line and attached it to the Balun so i could raze and lower it for
adjustments.

So the Balun is about a foot away from the tower.

It seems to tune ok all readings are below 2.1 on center freq on phone bands
on 40 80 160.

Just wonder if it's hearting the transmitting.

Thanks for the input..

Steve

"Cecil Moore" <mycall@arrl.net> wrote in message
news:pHNdf.18996$dO2.2022@newssvr29.news.prodigy.net...
> Steve wrote:
>> Still no input on my question. The feed point at the balun. should it be
>> off the tower on a stand off or is it ok to just hang it off a leg of the
>> tower.
>
> Is the balun mounted in an aluminum enclosure? If so, it's probably OK
> to fasten it to the tower assuming the tower is not RF 'hot'.
> --
> 73, Cecil http://www.qsl.net/w5dxp

3441. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 22:06:34 UTC
From: Murray Pasternack <MP@MurrayPasternack.com>
Message-ID: <uNOdf.28$rY5.17@fed1read04>
Source record: 67738

I suggest you look at a BNC cable assembly available From AAA RF Products of San Clemente, CA The AAA1003-180 Cable Assembly uses RG213/U cable with BNC male connectors, lenght is 15 feet and loss at 900 MHz would be about 1.6 dB. Cost about $30. See www.aaarfproducts.com for email & phone #

Murray, W6KRC

"Cecil Moore" <mycall@arrl.net> wrote in message news:bUMdf.11126$BZ5.1787@newssvr13.news.prodigy.com...
> Jim wrote:
> > thanks guys for your input! ok, forget about thin and supple. i need 50
> > ohm impedance coax at 900mhz into a uniden scanner(bnc connector) with a
> > 15 foot run. what coax of any size is commonly available that would be
> > suitable?
>
> LMR-1700 looks pretty good on the loss charts. It's about
> $10 per foot, 1.67 inch diameter - not sure about the BNC
> connector :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

3442. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 23:15:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dl8hdu$si4$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67739

If you need a nice low-loss coax for 900 MHz, there's not much better
than a 1" outside diameter cable with a 0.3" diameter inner conductor.
Or something like that.

If you cannot find such a line then the best thing to do is re-design
the whole system such that you don't need it.

==========

3443. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-13 23:57:39 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns970DA25C4C432doldridgsprintca@24.71.223.159>
Source record: 67740

"Kip W6KIP" <w6kip@kipwilliams.com> wrote in
news:1131896022.061849.35660@z14g2000cwz.googlegroups.com:

>
> Dave Oldridge wrote:
>> If someone has a computer model for it for MMHAMSOFT's modeller, that
>> would be GREAT!
>
> I've been looking for an EZNEC model of the Isotron for the past 6
> months, Dave. I haven't found anybody who has modeled one. I
> understand the Isotron is "lossy" and "nothing but radiating feedline"
> but it would still be interesting to see it on a grid or check the
> numbers in NEC. And - just like every antenna, you'll find people who
> use these things and love them, proving that "the best antenna is one
> that works for you". I've got to agree with what others are telling
> you. A small loop is the best performing antenna I've been able to
> find for my very challenging antenna environment. Other than the small
> bandwidth, I know it's working better than any inverted-vee or
> shortened dipole I've ever been able to get up amid the power lines
> and CATV cables here.

I actually have a fairly good ground--a balcony rail that forms an
aluminum grid about 40 feet in length and 3 feet in height. That's bound
to have a decent capacative coupling to real ground inside the building,
even if the rails are bolted into wood.

--
Dave Oldridge+
ICQ 1800667

3444. Re: Asking for owner comments - LDG AT-1000 Auto Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 00:52:06 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <LaRdf.20414$%k.14817@bignews6.bellsouth.net>
Source record: 67741
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Charlie" <charlie@play.com> wrote in message
news:11mhvb13vr19o31@news.supernews.com...
>I would like to hear from owners of this auto tuner about any operating
>quirks / hints / tips. Mine arrives tomorrow and while I have already
>downloaded and devoured the manual there is nothing quite like hearing
>straight from other hams. I have read the eHam reviews but still would like
>to hear more remarks..
>
> TY
>
> --
>
> Charlie-AD5TH
> www.ad5th.com

I can't speak to the AT-1000, but I have an AT-100 and I LOVE it! It simply remembers any frequency I "visit" and when I return to that band/frequency, it is there, and I mean right NOW! I am not a fan of "tuners", however due to the civilian and military frequencies I am authorized, I simply couldn't put up enough antennas to cover it all. So, using my inverted Vee and and Antron 99 (to take advantage of polarization of others on the higher frequencies), I can do all I need to do. I *may* not be the loudest fella on, but I DO get good reports, AND good reviews from other LDG owners.

Hope this helps.
73

Jerry
>
>
>
>
>
>

3445. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 01:18:02 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <58idnS7KnpHNeOreRVn-tw@comcast.com>
Source record: 67742

"Jim" <inagaddadavida@webtv.net> wrote in message
news:18798-43778B1A-54@storefull-3255.bay.webtv.net...
> thanks guys for your input! ok, forget about thin and supple. i need 50
> ohm impedance coax at 900mhz into a uniden scanner(bnc connector) with a
> 15 foot run. what coax of any size is commonly available that would be
> suitable?
>
If you insist on 50 Ohm skinny cable, get the LMR240. Loss for 15 feet will be 1.15 db. I believe HRO sells it. About the same diameter as RG59. There is also an LMR240UF, which is very flexible. The UF has slightly more loss, but at 15 feet you won't see it. $10 should get you 15 feet. We used this stuff at 2 GHz. The regular 240 has a solid center conductor, the UF is stranded. You might have trouble getting a BNC connector on the non-UF.

Tam/WB2TT

3446. The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 04:33:37 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <437813a2$0$75798$742ec2ed@news.sonic.net>
Source record: 67743

I'm considering buying the "CCRadio Plus" from the C Crane Co. for use as a "good" general purpose table radio with an above average AM section. Any comments?

Dave Pitzer

3447. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 07:57:58 UTC
From: Susan York <SUSANYORK@ATT.NET>
Message-ID: <89ggn116bpm18d7jtjsqde4kn5tobj1si6@4ax.com>
Source record: 67744

Dave,

I bought one a few months ago, and am very pleased. It is solidly built, hears very well indeed, and has very clear sound. Sort of the old "Super Radio" made digital, and built like a tank. I find the WX alert very handy, though if you are going to use that, it definitely wants to be run off 110V rather than batteries, since the receiver is on continuously even with the radio switched off. You can turn that feature off, if you wish. As with any specialty product, it probably is a bit pricey, but I find it well worth the cost.

--
Susan

3448. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 08:56:54 UTC
From: nm5k@wt.net
Message-ID: <1131958614.763293.134450@g44g2000cwa.googlegroups.com>
Source record: 67745

>Being a loop, it
>is also somewhat immune to near-field electrostatic interference such as
>from nearby power lines (which may account for the lower noise pickup)

Dunno...I consider this to be fictional content...
They may be slightly quieter as far as corona buildup, or
charge on the antenna itself, but not any noise in the far or
near field. If a loop picks up less noise in a certain direction
vs another antenna, it's the inferior antenna in that direction.
Noise is rf, and a signal, the same as any other signal.
If you get rid of noise, you get rid of *any* signal in that
direction and angle. I also consider the magic noise reducing
qualities of the "shielded" loops to be a fairy tale also.
I've done a good bit of testing, and can see no indication that
a shielded loop is any "quieter" than a regular unshielded loop.
The shielded loop design promotes good balance. But good
balance can be had with any loop.
I guess loops are ok, and they are efficient when fed with coax,
same as a dipole, but I usually prefer dipoles on 80m.
If you run a loop for NVIS, you want it all high up in the air,
with no parts dragging towards ground. Many stick loops
in the yard, and some parts will be high, some parts low.
The current distribution is "fairly" constant around the loop,
vs max on the dipole being at the feed point. So you have
more chances of increased ground and clutter loss with the
loops in many cases. I prefer the dipoles and inv vees because
the maximum current point is up high at the apex, and the
ends of the wires, which may droop lower, are voltage nodes.
I'd rather have the bulk of my radiation high up in the air,
rather than spread helter skelter around the yard area.
Often the dipole will outperform such a draggy loop...
But if all the loop is high and well supported, they can
be worthwhile. But still more work for little if any real
increase in performance vs the dipole.
MK

3449. Re: Rick Littlefield K1BQT article on feeding extended double zepps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 09:06:41 UTC
From: nm5k@wt.net
Message-ID: <1131959201.684996.93530@f14g2000cwb.googlegroups.com>
Source record: 67746

Does anybody have a copy of K1BQT's article from the Summer 1997 issue
>of Communications Quarterly,

He used to hang around here, but haven't seen him in ages...
Seems like I heard he was doing some work for cushcraft,
or someone, but I may be thinking of someone else...
He's the only person on this newsgroup I've actually talked
to on the air...:/ Was on 10m, and I was using a 1/2 wave
vertical at 20 ft...Yakked for a good while.. I do hear W8JI
on 160m loads of times, but I've never actually called him.
He's always busy working all that far off dx, and I hate to
bug him.... :/ Heck, most the time, I can't even hear the
stuff he works...It's fairly disgusting... :(He works mostly
CW.
MK

3450. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 10:11:02 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43781bcd@fidonet.org>
Source record: 67747

"Jim" bravely wrote to "All" (13 Nov 05 13:51:06)
--- on the heady topic of "Re: coax for 900mhz?"

Ji> From: inagaddadavida@webtv.net (Jim)
Ji> Xref: core-easynews rec.radio.amateur.antenna:220026

Ji> thanks guys for your input! ok, forget about thin and supple. i need
Ji> 50 ohm impedance coax at 900mhz into a uniden scanner(bnc connector)
Ji> with a 15 foot run. what coax of any size is commonly available that
Ji> would be suitable?

Listen, these nice guys are all BS'ing you. Remember that cable is
rated in dB/1,000ft, so that with only 15 of cable -- ANY -- will be
about the same. You will probably have more loss in the connectors!

A*s*i*m*o*v

... Everyone hates me because I'm paranoid.

3451. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 11:56:30 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <T-CdnZa5seOC5uXeRVn-vQ@bright.net>
Source record: 67748

Huh? All my charts list loss per one hundred feet...however, unless he
needs every last bit of signal, 15 feet of RG-58 would be OK...see:
http://bwcecom.belden.com/Catalog/TechInfo/Coax%20Electrical%20Characteristics.pdf

Scott

Asimov wrote:
> "Jim" bravely wrote to "All" (13 Nov 05 13:51:06)
> --- on the heady topic of "Re: coax for 900mhz?"
>
> Ji> From: inagaddadavida@webtv.net (Jim)
> Ji> Xref: core-easynews rec.radio.amateur.antenna:220026
>
> Ji> thanks guys for your input! ok, forget about thin and supple. i need
> Ji> 50 ohm impedance coax at 900mhz into a uniden scanner(bnc connector)
> Ji> with a 15 foot run. what coax of any size is commonly available that
> Ji> would be suitable?
>
> Listen, these nice guys are all BS'ing you. Remember that cable is
> rated in dB/1,000ft, so that with only 15 of cable -- ANY -- will be
> about the same. You will probably have more loss in the connectors!
>
> A*s*i*m*o*v
>
> ... Everyone hates me because I'm paranoid.
>

3452. Re: Asking for owner comments - LDG AT-1000 Auto Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 12:46:34 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1131972394.769060.251080@f14g2000cwb.googlegroups.com>
Source record: 67749
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

.... i have an AT-100 too. it's absolutely wonderful! i used for a
time a 25 feet aluminum pipe lee than one inch in diameter, and a few
radials, God only knows what size. that setup brought in for me
everything from Argentina west, to Korea east. I think the '1000 is a
definite improvement, albeit a little expensive for me.
I didn't even think to look at other ones. Besides, Dwaine's
service is flawlees! A most important parameter, even more so with the
difficulties with getting service here in 4Zulu land.
Saandy 4Z5KS

Jerry wrote:
> "Charlie" <charlie@play.com> wrote in message
> news:11mhvb13vr19o31@news.supernews.com...
> >I would like to hear from owners of this auto tuner about any operating
> >quirks / hints / tips. Mine arrives tomorrow and while I have already
> >downloaded and devoured the manual there is nothing quite like hearing
> >straight from other hams. I have read the eHam reviews but still would like
> >to hear more remarks..
> >
> > TY
> >
> > --
> >
> > Charlie-AD5TH
> > www.ad5th.com
>
> I can't speak to the AT-1000, but I have an AT-100 and I LOVE it! It simply
> remembers any frequency I "visit" and when I return to that band/frequency,
> it is there, and I mean right NOW! I am not a fan of "tuners", however due
> to the civilian and military frequencies I am authorized, I simply couldn't
> put up enough antennas to cover it all. So, using my inverted Vee and and
> Antron 99 (to take advantage of polarization of others on the higher
> frequencies), I can do all I need to do. I *may* not be the loudest fella
> on, but I DO get good reports, AND good reviews from other LDG owners.
>
> Hope this helps.
> 73
>
> Jerry
> >
> >
> >
> >

> >
> >

3453. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 12:54:15 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1131972855.789984.159790@g49g2000cwa.googlegroups.com>
Source record: 67750

There ain't such no thing as a low loss thin cable! not for high frequencies, anyway! what experience teaches is to put up the thickest line you can within the closest reach of the antenna, and use the absolute minimum of thin, flexible cable from there to the antenna itself. in any case you need good connectors at these frequencies so the additional price is not a real killer.
there's no way to dodge the physics at these frequencies. try to fish out reel ends of CATV cables from your local comapny. usually they're glad to give it away, if you rid them from it. I even got e afew connectors for my pain. in any case you need to match the antenna to the cable, so why not at 75 ohms instead of 50?
Saandy 4Z5KS

3454. Re: Coax Connector, Adapter, & Bulk Cable Catalog

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 14:24:13 UTC
From: John - kd5yi <groups5MUNGE@verizon.net>
Message-ID: <dla6mg0181l@enews2.newsguy.com>
Source record: 67752

"AAA RF Products" <sales@aaarfproducts.com> wrote in message
news:EmLcf.72$7B.52@fed1read02...
> For your free copy of our new catalog, please email
> sales@AAARFProducts.com
> or see www.aaarfproducts.com
>
> No minimum order.
>
> No handling charges.
>
> High quality and low cost.

Your Web site requires some kind of plug-ins for my browser.

No thanks.

3455. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 14:38:47 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <3b7hn1lpts4594nviahcv9rp2062sbh2ou@4ax.com>
Source record: 67751

On Sun, 13 Nov 2005 23:33:37 -0500, "Dave Pitzer" <dpitzer@sonic.net>
wrote:

>I'm considering buying the "CCRadio Plus" from the C Crane Co. for use as a
>"good" general purpose table radio with an above average AM section. Any
>comments?
>
>Dave Pitzer
>

You might call and ask if they've improved the digital display. I have
a plain CCRadio, and the display only lasted about two years before it
quit showing numbers and letters. Fortunately, I put all of my
favorite stations in memory before the radio went blind.

I asked about their repairing the display, and they want a minimum of
$49.95 plus shipping both ways.

Otherwise it is a good radio, altho' I'm not sure it's really much
better a DX-type radio than others. Still, it does have the 8-inch
ferrite antenna, plus screws where you can attach an external AM
antenna.

My much cheaper GE SuperRadio has about the same receiving
capabilities, but with analog tuning, and a better audio setup; it's
like a little mono boombox.

bob
k5qwg

3456. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 14:45:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Yp1ef.27067$6e1.21136@newssvr14.news.prodigy.com>
Source record: 67753

nm5k@wt.net wrote:
> They (loops) may be slightly quieter as far as ...
> charge on the antenna itself, ...

When I lived in AZ, where the wind blew almost all the time
and the humidity was very low, particles in the wind would
deposit their charges on my dipole causing an extreme amount
of noise and sometimes even arcing. I hear dry snow can do
the same thing. I was trying out a 4:1 voltage balun one day
and noticed that particular noise source had gone away since
the balun was a DC short and bled off the charges. A later
loop also didn't have the problem. An RF choke or high-ohm
resistor across the dipole feedpoint will also cure the
problem.
--
73, Cecil http://www.qsl.net/w5dxp

3457. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 14:55:49 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Vz1ef.27068$6e1.17493@newssvr14.news.prodigy.com>
Source record: 67754

Dave Pitzer wrote:
> I'm considering buying the "CCRadio Plus" from the C Crane Co. for use as a
> "good" general purpose table radio with an above average AM section. Any
> comments?

I bought one hoping to receive 10kw WTAW clearly at night
from 30 miles away. It's a nice radio but didn't solve
that midnight reception problem. My Grundig Yacht Boy 400
receives just as well as the CCRadio Plus.
--
73, Cecil http://www.qsl.net/w5dxp

3458. Re: W9INN antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 14:59:52 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <cLSdnUyEOqbmO-XenZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 67755

Steve wrote:
> It's a W2AU Balun that came with the antenna. I took a pulley and attached
> it to the tower and then
> took a line and attached it to the Balun so i could raze and lower it for
> adjustments.
>
> So the Balun is about a foot away from the tower.
>
> It seems to tune ok all readings are below 2.1 on center freq on phone bands
> on 40 80 160.
>
> Just wonder if it's hearting the transmitting.
>
> Thanks for the input..

It's fine. I don't think it is "hearting" the transmitter; or hurting
it either. :-)

3459. Re: coax for 900mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 15:26:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlaaaj$le0$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67756

A SOLID POLYETHELINE COAXIAL LINE :-

Length = 5 metres (15 feet).
Outer conductor diameter = 25 mm (1 inch).
Inner conductor diameter = 7 mm (1/3 inch).
Impedance = 50 ohms.
Velocity factor = 0.665

At 900 MHz, it has an overall matched loss of about 0.8 decibels. With an SWR of 2:1 loss may increase to 1 dB.

The above figures will give you some idea of the sort of stuff you are looking for. Halve the diameters and roughly double the loss.

For any other dimensions download program COAXPAIR from website below. If you have any cable of unknown characteristics lying around doing nothing, then have a sensible guess at dimensions and just insert data into the program. It is very easy to use.

The program itself, from audio frequencies up to the GHz range, is generally at least as accurate as cable dimensions can be measured using ordinary engineering instruments. It is of professional grade, usable by cable designers and workers in the field of resonant transmission lines for impedance-matching purposes. One useful program output is the input impedance and SWR of any coaxial line, of any length, for any terminating impedance at any frequency. It is necessary to know the line's velocity factor which for solid polyethylene is always 0.66

Other types of line are similarly covered by other programs available from the website.

But for your particular application, download program COAXPAIR.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

3460. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 15:32:34 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <11nhbgi4jujsb7c@corp.supernews.com>
Source record: 67757

Hi Cecil!

Cecil Moore wrote:

> Dave Pitzer wrote:
>
>> I'm considering buying the "CCRadio Plus" from the C Crane Co. for
>> use as a
>> "good" general purpose table radio with an above average AM
>> section. Any
>> comments?
>
>
> I bought one hoping to receive 10kw WTAW clearly at night
> from 30 miles away. It's a nice radio but didn't solve
> that midnight reception problem. My Grundig Yacht Boy 400
> receives just as well as the CCRadio Plus.

Isn't our old friend WTAW on streaming audio as well? I think I recall hearing that it is. As a thought to the original poster, perhaps the stations he is seeking are on streaming audio over the web as well.

Incidentally, I'd love to be able to get KMVL-AM in Madisonville where you are, at the in-town family home site in College Station, at night, chuckle. But at night on 1220 when KMVL-AM is at 3 watts, that's even a few DB worse than your choice for 10KW, grin.

W5WQN

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

3461. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 15:52:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4p2ef.11227$BZ5.67@newssvr13.news.prodigy.com>
Source record: 67758

Mike Luther wrote:
> Isn't our old friend WTAW on streaming audio as well?

I'm just lazy. My IC-756PRO also receives it pretty well
on my G5RV. But my computer and ICOM are not in my bedroom
and I like to set the CCRadio timer to one hour so it will
turn off automatically after I go to sleep listening to
Coast-To-Coast AM with George and Art.

> Incidentally, I'd love to be able to get KMVL-AM in Madisonville where
> you are, at the in-town family home site in College Station, at night,
> chuckle. But at night on 1220 when KMVL-AM is at 3 watts, that's even a
> few DB worse than your choice for 10KW, grin.

WTAW advertises 10kw but may run at reduced power at night.
That might be part of the problem. And I could switch over
to KMVL but music doesn't put me to sleep as fast as Art
Bell. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3462. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 16:38:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlaeha$i0$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67759

Cec, in this little country we don't seem to suffer from static from dust or other dry storms. Rather rarely, when a thunderstorm is in the vicinity, I have experienced rain-static which occurs only during a heavy 'tropical' downpour. At such times I am inclined to disconnect the antenna, anyway, to avoid damage due to a direct lightning strike on the antenna or house. The S-meter may rise to S-10 or S-11 for a few minutes but this extreme occurs only once every few years. I have never experienced static due to dry snow. I have only once experienced static on a nice warm day with a completely blue sky and this lasted only for half an hour. Never figured out why.

Using a high value resistor or choke to ground the antenna doesn't have any effect on S-meter noise level. I would not expect it to.

I cannot see how loop antennas are less susceptible to static except that their smaller size may have a smaller catchment area for particles or raindrops.

Could you briefly describe what happens to the S-meter on the 160, 80 and 40 meter bands when severe static occurs in Texas, or any other States, and how frequently static weather conditions occur strong enough to temporally put one off the air?

Reg.

3463. Re: Asking for owner comments - LDG AT-1000 Auto Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 17:50:56 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1131990656.786272.153800@z14g2000cwz.googlegroups.com>
Source record: 67760
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Hi Charlie,
I have owned mine since 2003. I have used it with
an AL-811 on an 80m loop
and an 160-10m "Cobra Ulyra-lite" antenna. It worked very good on the
loop,BUT I had some
matching problems at 160m. I finally got it all working by adjusting
the feedline lenths on that
antenna. The ant. comes with 100ft. of ladderline,which I then
connected to the Radioworks
"remote Balun"/ 4 to 1,and the to 20ft. of rg-213. It wouldn't tune
there! On 160m, at about
1930mhz, it just quit! I had to change the LENTH OF THE COAX to 50ft.
! ! I don't know
why,but it works!! The TUNER.....well, I have to say that it
makes a lot of noise,BUT
It works great,and i would buy it again!!!

Good "radioing" my fellow ham,

RayN KB1-GHH

3464. Handling 450 line...??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 17:57:46 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <gc4ef.64738$ty1.37735@bignews1.bellsouth.net>
Source record: 67761

Laying out at 16 element "Sterba" into Europe...

Getting the 450 line into the shack!!

1.- Should I float the 450 line into some 2 inch PVC
through the wall then mid-air it 5 feet to the tuner....??

2.- Or should I mount the 4:1 balun on the outside then bring co-ax through
the wall ...then 5 feet top the tuner....

3.-..Or...??

TNX,
Bill
kc4pe@mindspring.com

3465. Re: Handling 450 line...??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 18:14:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlak6s$e8i$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67762

Just bring the two 450-ohm wires close together for a few inches and
bring them into the shack through a small, single, insulated hole in
the wall or window frame.

Once inside the shack you can do what you like with it for the few
feet between the hole in the wall and the tuner / transmitter.
==========

3466. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 18:22:18 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <uB4ef.11244$BZ5.2727@newssvr13.news.prodigy.com>
Source record: 67763

Reg Edwards wrote:
> Could you briefly describe what happens to the S-meter on the 160, 80
> and 40 meter bands when severe static occurs in Texas, or any other
> States, and how frequently static weather conditions occur strong
> enough to temporally put one off the air?

On my IC-745 in AZ, the coax connector would arc many
times at the transceiver about once a month during late
summer. It pinned the S-meter but didn't seem to
damage the IC-745. It arced whether the IC-745 was
on or off. A 4:1 voltage balun cured that particular
arcing problem although it generated other problems.
The PL-239 coax connectors must arc around 300 volts
or so.
--
73, Cecil http://www.qsl.net/w5dxp

3467. Re: Handling 450 line...??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 18:25:53 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <RE4ef.11245$BZ5.2437@newssvr13.news.prodigy.com>
Source record: 67764

Bill wrote:
> Laying out a 16 element "Sterba" into Europe...

What is the feedpoint impedance? Single band?

> Getting the 450 line into the shack!!

If the feedpoint impedance is around 50 ohms and it
is single band, feed it with N*1/2WL of ladder-line
through a 1:1 current/choke balun. Coax can be run
from the balun into the house.
--
73, Cecil http://www.qsl.net/w5dxp

3468. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-14 19:21:35 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dlao3v$o82$1@engnntp2.cig.mot.com>
Source record: 67765

Owen,
I believe you are mistaken. The carrier frequency is given. It will be measured, in Newington, against either a cesium or rubidium standard (don't remember which), but I don't know if it will actually be _controlled_ by the standard.. It is only the audio tone which is the unknown.

73, Steve, K,9.D;C'I

"Owen Duffy" <owen@no.where> wrote in message news:a3p7n15r1agbfgfmhl577ske4j4u5psfhg@4ax.com...
> On Thu, 10 Nov 2005 10:06:56 GMT, ml <m@di.net> wrote:
>
> >hi
> >
> >I noticed the below lately and wonder, being new at this ... how one
> >would measure it?
> >
> >is their a step by step guide or just a specific instrument(s) you need
> >
> >I'd love to learn and try it, but didn't see any posted
> >''instructions''...
> >any help appreciated
>
> This looks like a guessing game / lottery to some extent, since no
> information is given on the stability of either the virtual carrier or
> the modulating tone (yet you are advised they both may vary) and the
> time of measurement (an instant?) is part of the submitted data.
>
> The winner using a sound scientific approach to measurement may
> require luck to be not beaten by a less accurate, but closer answer at
> some moment.
>
> Owen
> >
> >
> >m
> >
> >
> >partially cut from the arrl's email
> >"Returning to the airwaves November 17 at 0245 UTC (Wednesday,
> >November 16 in US time zones), the 2005 ARRL Frequency Measuring
> >Test (FMT) once again will call on participants to measure the
> >frequency of an audio tone modulating the carrier.
> >
> >''Measuring the tone frequency, as opposed to that of the carrier,

> >reinforces the understanding of the relationship between carrier
> >frequency and the actual components of a transmitted signal,''
> >Engineer and ARRL Contributing Editor Ward Silver, N0AX, says in
> >''Tune In the 2005 Frequency Measuring Test,'' in November QST (p
> >54),...www.arrl.org/w1aw/fmt/2005/05fmtsilver.pdf. ''With the carrier
> >largely suppressed for SSB signals, only the sideband components
> >remain. A single modulating tone results in a single transmitted
> >component.'' But, Silver notes, the frequency of the absent carrier
> >is what the operator sees on the radio's display.
> >
> >The FMT signals will emanate from Maxim Memorial Station W1AW this
> >year on 160, 80 and 40 meters. The 20-meter transmission has been
> >dropped for 2005 because of the generally poor conditions during
> >evening hours on that band. The frequencies will be 1855, 3990 and
> >7290 kHz, and all transmissions will be on lower sideband (LSB). The
> >FMT will replace the W1AW phone bulletin normally transmitted at
> >0245 UTC on November 17 (November 16 in US time zones).
> >
> >Participants may utilize either direct or indirect techniques to
> >determine the tone frequency. ''Direct measurements assume a carrier
> >frequency and measure the audio tone frequency directly,'' Silver
> >explains. ''Indirect measurements obtain the transmitted frequency of
> >the tone component at RF, then compute the difference between the
> >published carrier frequency and measured frequency.''
> >
> >Silver advises that since the W1AW exciters are independent units
> >and not fed with a single local oscillator, participants can expect
> >the measured tone frequency to differ slightly on each band.
> >
> >The test itself will consist of three 60-second tone transmissions
> >on each band, followed by a station identification. The whole test
> >will run for about 15 minutes and will end with a station ID.
> >
> >Submitted reports should include the time of reception and the tone
> >frequency. Those using an indirect measurement method should show
> >how they calculated the tone frequency. Participants also should
> >include name, call sign and location in their reports, and they may
> >submit separate reports for each band. A Certificate of
> >Participation is available to all entrants.
> --

3469. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 00:15:41 UTC
From: garigue <garigue@comcast.net>
Message-ID: <4NudnfxVQMoyteTeRVn-hg@comcast.com>
Source record: 67766

> I'm considering buying the "CCRadio Plus" from the C Crane Co. for use as
a
> "good" general purpose table radio with an above average AM section. Any
> comments?
>
> Dave Pitzer

Hello Dave .... I would not reccommend the CC radio for a number of reasons. First I find that it is susceptable to noise ...don't ask me why ...I am not an engineer ..... The damm beeping of this thing on band change is unnecessary and irritating. It does not have the ability , with the internal antenna, to pull stations apart and out of the mud ... IMHO. The display could use a little more contrast for my back none of life eyesight. I live about 30 miles from Pittsburgh and have difficulty with AM stations from there at night ....which was the main reason I got the radio. The small Toshiba F 11 I bought years ago is a better AM receiver. I don't have any experience with the GE super radio but I know fellows that like them. Reception probably would be better with a turnable loop but I have other projects to work on before that happens. The expense - performance curve is way off ....again IMHO.

Hopefully you will be more satisfied than I am if you go this route.

Take care ..... Tom Popovic Belle Vernon PA

3470. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 00:33:09 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <11nib669a7hdcb1@corp.supernews.com>
Source record: 67767

ROTFL!

Cecil Moore wrote:

> WTAW advertises 10kw but may run at reduced power at night.
> That might be part of the problem. And I could switch over
> to KMVL but music doesn't put me to sleep as fast as Art
> Bell. :-)

Double :) :)

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

3471. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 01:42:01 UTC
From: Nick Kennedy <wa5bdu@yahoo.com>
Message-ID: <G%aef.10984$ih5.9189@dukeread11>
Source record: 67768

OK, I found that QEX after much fuming and searching, under some recipes, bills and phone books in the kitchen ...

Giessinger doesn't refer to Day's work. Among several references is one to a work by Robert Dick in the Jan/Feb 1999 issue of QEX.

I won't try to paraphrase extensively, since I don't think I understand the technique well enough to do it properly. It involves analyzing vowel sounds, which have a fundamental and harmonics of predictable relative amplitudes. I suppose you find the harmonic peaks and note the error in their frequency relationship caused by mis-tuning, and there you go. Sounds simple, if you don't have to actually do it. ;^)

I can see where it would be pretty straightforward (relatively) with music, but doing this with voice is impressive to me.

Apparently similar techniques are now being used in high end rigs like the IC-7800.

73--Nick, WA5BDU

"J. Mc Laughlin" <jcm@power-net.net> wrote in message
news:11nbsoiiua7d8e5@corp.supernews.com...
> Dear Nick: Fascinating. When you find the QEX article please report
back.
> 73 Mac N8TT
>
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
> "Nick Kennedy" <wa5bdu@yahoo.com> wrote in message
> news:BWcdf.2375$ih5.1677@dukeread11...
> > "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> > news:11n7loiiljqs9af@corp.supernews.com...
> > > Here is the title and author's name:
> > > A method for accurate receiver tuning and precise measurement of the
> > carrier
> > > frequency of voice-modulated, suppressed-carrier, single-sideband
radio
> > > signals
> > > Day, Lucius Boyden.
> > >
> > > I do not know where it might be read on the WEB. 73 Mac N8TT
> >
> >
> > It sounds similar to a recent article. I see that in the July/August

QEX
> > there was an article called "A Blind Automatic Frequency Control
Algorithm
> > for Single Sideband" by Geissinger. I can't find that issue, so don't
> know
> > it used Mr. Day's technique or not.
> >
> > 73--Nick, WA5BDU
> >
> >
>
>

3472. Need Info on Roelof Bakker [PA0RDT] "Mini-Whip" Active Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 03:15:12 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1132024512.503523.92070@g14g2000cwa.googlegroups.com>
Source record: 67769
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Steve Muldoon [N8KOM]

Roelof Bakker's "PA0RDT Mini-Whip".
http://beaconworld.org.uk/images1/alspics/miniwhiplarge.jpg

I have also added a new antenna recently, the amazing
little "mini-whip" designed and developed by fellow
Dutch NDB Enthusiast Roelof Bakker, PA0RDT.

This small 'active whip' is not much longer than my pen,
and works very well from its perch at the top of my bird
feeding station in my back garden.

If space is a problem at your QTH, or you are planning
some outdoor operating in the near future, one of these
impressive little devices might be just what you are
looking for.

NOTE - There seems to be few references to the PA0RDT
"Mini-Whip" Active Antenna.

~ RHF
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/

= = = In Shortwave-SWL-Antenna@yahoogroups.com,
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/6525
= = = "Steve Muldoon" <n8kom@w...> wrote:

Greetings All -

Can anyone provide, or direct me to design information
or reference material for the Roelof Bakker PA0RDT
"Mini-Whip" Active antenna?

Saw a reference to this Antenna on the BeaconWorld website.

http://beaconworld.org.uk/beaconrx.htm

Thanks - Steve N8KOM
.
.
. .
.

3473. Re: fmt

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 04:55:15 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11niqgj35v1v29e@corp.supernews.com>
Source record: 67770

Dear Nick: Fascinating. Many thanks for the reference and for an
abstract. It is possible that the methods are related.
When things die down, I intend to write to Day. Thanks again for your
help and to others for stimulating thoughts about things from long ago.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Nick Kennedy" <wa5bdu@yahoo.com> wrote in message
news:G%aef.10984$ih5.9189@dukeread11...
> OK, I found that QEX after much fuming and searching, under some recipes,
> bills and phone books in the kitchen ...
>
> Giessinger doesn't refer to Day's work. Among several references is one
to
> a work by Robert Dick in the Jan/Feb 1999 issue of QEX.
>
> I won't try to paraphrase extensively, since I don't think I understand
the
> technique well enough to do it properly. It involves analyzing vowel
> sounds, which have a fundamental and harmonics of predictable relative
> amplitudes. I suppose you find the harmonic peaks and note the error in
> their frequency relationship caused by mis-tuning, and there you go.
Sounds
> simple, if you don't have to actually do it. ;^)
>
> I can see where it would be pretty straightforward (relatively) with
music,
> but doing this with voice is impressive to me.
>
> Apparently similar techniques are now being used in high end rigs like the
> IC-7800.
>
> 73--Nick, WA5BDU
>
> "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> news:11nbsoiiua7d8e5@corp.supernews.com...
> > Dear Nick: Fascinating. When you find the QEX article please report
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> > 73 Mac N8TT
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> > --
> > J. Mc Laughlin; Michigan U.S.A.

> > Home: JCM@Power-Net.Net
> > "Nick Kennedy" <wa5bdu@yahoo.com> wrote in message
> > news:BWcdf.2375$ih5.1677@dukeread11...
> > > "J. Mc Laughlin" <jcm@power-net.net> wrote in message
> > > news:11n7loiiljqs9af@corp.supernews.com...
> > > > Here is the title and author's name:
> > > > A method for accurate receiver tuning and precise measurement of the
> > > carrier
> > > > frequency of voice-modulated, suppressed-carrier, single-sideband
> radio
> > > > signals
> > > > Day, Lucius Boyden.
> > > >
> > > > I do not know where it might be read on the WEB. 73 Mac N8TT
> > >
> > >
> > > It sounds similar to a recent article. I see that in the July/August
> QEX
> > > there was an article called "A Blind Automatic Frequency Control
> Algorithm
> > > for Single Sideband" by Geissinger. I can't find that issue, so don't
> > know
> > > it used Mr. Day's technique or not.
> > >
> > > 73--Nick, WA5BDU
> > >
> > >
> >
> >
>
>

3474. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 05:00:15 UTC
From: nm5k@wt.net
Message-ID: <1132030815.222892.311210@z14g2000cwz.googlegroups.com>
Source record: 67771

Heck, next time a T-storm rolls through, I'll record it ,
and let you hear it. Simple to do with my radio running
through the sound card. I can compress the file to
mp3 to save DL time. No unzipping required.
MK

3475. Re: Handling 450 line...??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 05:08:07 UTC
From: mcalhoun@ksu.edu
Message-ID: <dlbqfn$15v@unix1.cc.ksu.edu>
Source record: 67773

>Laying out a 16 element "Sterba" into Europe...
>Getting the 450 line into the shack!!
>1.- Should I float the 450 line into some 2 inch PVC
> through the wall then mid-air it 5 feet to the tuner....??

I've never used notched-plastic, looks-like-wide-TV 450 line, but I have used true "open wire" kind (two parallel wires with 1" separation and little insulators every six inches), and to get that through a wall I used two ceramic "tubes" from old "knob and tube" house wiring by drilling two holes with 1" separation thru the wall (with a slight downward slant so water runs out), cut the 450 line at the appropriate place, remove one insulator (to give a little working room), thread wires thru insulators, and solder the line back together inside the house....

A RELATED QUESTION: what is(are) the difference(s) between the two kinds of 450-ohm line? I suspect the velocity of the true open-wire kind is a little higher and loss and moisture effects are a little lower than for the partially-covered-in-plastic line?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

3476. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 05:11:03 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_437959c9@fidonet.org>
Source record: 67772

"Cecil Moore" bravely wrote to "All" (14 Nov 05 15:52:32)
--- on the heady topic of "Re: The C. Crane Co. CCRadio Plus"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:220052

CM> WTAW advertises 10kw but may run at reduced power at night.
CM> That might be part of the problem. And I could switch over
CM> to KMVL but music doesn't put me to sleep as fast as Art
CM> Bell. :-)

No wonder it puts you to sleep. Here you are with an IQ of nearly 170
and to have to listen to perfect morons using 10 gallon words
inappropriately must just lull you into unconsciousness before they
reach the end of their speil. You have to be a masochist!

A*s*i*m*o*v

... Plato was a bore. - Friedrich Nietzsche

3477. Re: Handling 450 line...??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 12:50:18 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <eQkef.132$4o7.131@newssvr24.news.prodigy.net>
Source record: 67774

Bill,
You can do it either way, just not that critical. Or,
as Reg suggested, or Cecil. Or, put a board in a close window,
drill a couple of holes in it about an inch apart and run
'connection' wires through from ourside/inside (or a couple
of bolts).
I'm sure you'll get other suggestions...
'Doc

3478. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 13:36:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <qvlef.20004$Zv5.1746@newssvr25.news.prodigy.net>
Source record: 67775

Asimov wrote:
> No wonder it puts you to sleep. Here you are with an IQ of nearly 170
> and to have to listen to perfect morons using 10 gallon words
> inappropriately must just lull you into unconsciousness before they
> reach the end of their speil. You have to be a masochist!

Just trying to support my fellow ham, Art Bell. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3479. Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 13:40:35 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <a9d60$4379e54e$18d64e2f$22584@KNOLOGY.NET>
Source record: 67626

The recent CCrane thread got me to wondering again.
What would go into building a good system for receiving
BCB A.M. radio?
A complete system, starting with a directional antenna,
(loop, flag, etc.) A system to seperate stations on the same
frequency. Building a strong front end. Good audio.
Just looking for a discussion regarding design of a great
BCB radio.

Mike

3480. Hi-Fi tuner aerial connection query.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 13:53:36 UTC
From: JohnEllicottington@lycos.co.uk
Message-ID: <1132062816.151387.236660@g49g2000cwa.googlegroups.com>
Source record: 67627

Hi
I would like to connect my hi-fi's tuner to my TV's communial aerial
socket on the wall with the aid of some sort of coaxial splitter, is
this possible? On the rear of the hi-fi are the aerial connectors which
appear to accept strands of exposed wire by pressing and releasing a
small lever. The five connections are split between 300ohm, 75ohm and
AM. Whats the best way to get a decent reception from the tuner?
Thanks for any advice.
Johno

3481. Re: Am reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 14:00:39 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <11njqg79ekqi678@corp.supernews.com>
Source record: 67628

I'll try the long wire antenna attached to the coax center conductor. I can put around 60ft of #12ga single conductor insulated wire. Should this be at right angles to the stations I want to receive or parallel? What do I do with the shield on the coax?

<dxer@aol.com> wrote in message
news:1131730430.536689.322880@g43g2000cwa.googlegroups.com...
>
> Jeff Dieterle wrote:
> I've ran RGU-6 coax from my office to the factory roof,
>> (appx.75ft) as I doubt if the loop would pull these in from inside my
>> office
>> which is inside the factory.
>>
>> Is there a less expensive alternative than the loop since I have coax
>> installed ?
>>
>> Thanks
>> Jeff
>
> Did you connect the coax to anything at all, or is it just coax
> going outside to the roof,
> Connecting it to the metal gutters or something like that might really
> help the reception.
> If there are no metal gutters or anything like that, connect a long
> piece of wire to the center conductor of the coax and lay it out on the
> roof.
>
> You might also try just taking a piece of wire and connecting it to
> the back of the GE SRIII, connect it to the AM screw terminal on the
> back of the radio and take that wire over to the window and see if that
> works, or you can continue that wire all the way from the back of the
> radio all the way out to the roof.
>
> I also remember something like winding wire around something like a
> Quaker oatmeal container, contecting both ends of this wire to a small
> air variable cap and just placing this antenna right behind the GE SR,
> near its internal antenna. You can then tune the cap for peak reception
> and then turn it and the radio to get the stations you want, this coil
> of wire enhances the internal antenna of the GE SR.
>
> Craig
>

3482. Re: Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 15:10:59 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <4dap43-s3c.ln1@p400bob.personal.cox.net>
Source record: 67630

How about doing it in software with a simple direct conversion receiver
and I/Q outputs going into your PC's sound card line ins? Lots of
provision for DSP filtering, lots of available audio b/w etc...

Cheers Bob VK2YQA

amdx wrote:
> The recent CCrane thread got me to wondering again.
> What would go into building a good system for receiving
> BCB A.M. radio?
> A complete system, starting with a directional antenna,
> (loop, flag, etc.) A system to seperate stations on the same
> frequency. Building a strong front end. Good audio.
> Just looking for a discussion regarding design of a great
> BCB radio.
>
> Mike
>
>

3483. Re: Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 15:49:31 UTC
From: Earl Needham <munged@3lefties.com>
Message-ID: <11nk0sb9lh2jq82@corp.supernews.com>
Source record: 67629

"amdx" <amdx@worldnet.att.net> wrote in message
news:a9d60$4379e54e$18d64e2f$22584@KNOLOGY.NET...
> The recent CCrane thread got me to wondering again.
> What would go into building a good system for receiving
> BCB A.M. radio?
> A complete system, starting with a directional antenna,
> (loop, flag, etc.) A system to seperate stations on the same
> frequency. Building a strong front end. Good audio.
> Just looking for a discussion regarding design of a great
> BCB radio.

Getting the standard changed to SSB would be a great start, but it'll
never happen.

7 3
Earl
KD5XB
--
Earl Needham
Clovis, New Mexico USA

3484. Re: Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 16:02:28 UTC
From: noway@nohow.com
Message-ID: <dld0qk02fmo@enews1.newsguy.com>
Source record: 67631

On 15-Nov-2005, "Earl Needham" <munged@3lefties.com> wrote:

> Getting the standard changed to SSB would be a great start, but it'll
> never happen.
>
> 7 3
> Earl
> KD5XB

~~~~~~

Even better would be to eliminate all HF broadcasting and move it to UHF FM.
That "might" happen, but not soon.

73, Bill W6WRT
~~~~~~

3485. Re: Hi-Fi tuner aerial connection query.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 17:21:17 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns970F5F27D35C7doldridgsprintca@24.71.223.159>
Source record: 67632

JohnEllicottington@lycos.co.uk wrote in news:1132062816.151387.236660
@g49g2000cwa.googlegroups.com:

> Hi
> I would like to connect my hi-fi's tuner to my TV's communial aerial
> socket on the wall with the aid of some sort of coaxial splitter, is
> this possible? On the rear of the hi-fi are the aerial connectors which
> appear to accept strands of exposed wire by pressing and releasing a
> small lever. The five connections are split between 300ohm, 75ohm and
> AM. Whats the best way to get a decent reception from the tuner?
> Thanks for any advice.

You can get passive splitters that are fairly good devices. Try any radio-
TV parts store for one of those. Connect one output to your regular TV's
antenna connection and the other to the 75ohm input on your tuner. This
will get you any FM signals that are being carried on the communal system.
For AM, you're better off just attaching as long a piece of wire as you
can, unless you want to get into special active antennas.

--
Dave Oldridge+
ICQ 1800667

3486. Re: Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 17:27:10 UTC
From: richardharrison@webtv.net
Message-ID: <26953-437A1A6E-1050@storefull-3256.bay.webtv.net>
Source record: 67634

Mike wrote:
"Just looking for a discussion regarding fesign of a great BCB radio."

It has already been done. The SCR 274 N or ARC-5 series included a receiver which covered most of the AM broadcast band. With a wire connected to its antenna post, a unique signal appears every 10 KHz Across the dial. All that`s needed is transistorization. I used one of the originals with a 12-V dynamotor as a a car radio for years.

Best regards, Richard Harrison, KB5WZI

3487. Re: Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 17:34:53 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <66ec8$437a1c38$18d64e2f$10298@KNOLOGY.NET>
Source record: 67633

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:4dap43-s3c.ln1@p400bob.personal.cox.net...
> How about doing it in software with a simple direct conversion receiver
> and I/Q outputs going into your PC's sound card line ins? Lots of
> provision for DSP filtering, lots of available audio b/w etc...

Ok, how about the Tayloe detector, it has a strong front end and I and Q
outputs.
Anyway to use this to eliminate stations on the same freq. Maybe two
antennas and two
detectors phased or computer manipulated?

Mike
>
> Cheers Bob VK2YQA
>
> amdx wrote:
> > The recent CCrane thread got me to wondering again.
> > What would go into building a good system for receiving
> > BCB A.M. radio?
> > A complete system, starting with a directional antenna,
> > (loop, flag, etc.) A system to seperate stations on the same
> > frequency. Building a strong front end. Good audio.
> > Just looking for a discussion regarding design of a great
> > BCB radio.
> >
> > Mike
> >
> >

3488. Re: Handling 450 line...??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 19:02:22 UTC
From: "Edward A. Feustel" <efeustel@direcway.com>
Message-ID: <B-OdneH0MttbrefenZ2dnUVZ_tKdnZ2d@giganews.com>
Source record: 67635

"Bill" <kc4pe@bellsouth.net> wrote in message
news:gc4ef.64738$ty1.37735@bignews1.bellsouth.net...
> Laying out at 16 element "Sterba" into Europe...
>
> Getting the 450 line into the shack!!
>
> 1.- Should I float the 450 line into some 2 inch PVC
> through the wall then mid-air it 5 feet to the tuner....??
>
> 2.- Or should I mount the 4:1 balun on the outside then bring co-ax
> through
> the wall ...then 5 feet top the tuner....
>
> 3.-..Or...??
>
> TNX,
> Bill
> kc4pe@mindspring.com
>
>
>
My 600 ohm open line comes in through a horizontally sliding basement
window.
I simply use fiberglass insulation on either side of the line and bring it
in with the
one conductor above the other. Then I use the sliding window to put
compression
on the insulation.
Ed, N5EI

3489. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 19:47:46 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <d198d$437a3b5c$18d64e2f$31782@KNOLOGY.NET>
Source record: 67636

"Cecil Moore" <mycall@arrl.net> wrote in message
news:qvlef.20004$Zv5.1746@newssvr25.news.prodigy.net...
> Asimov wrote:
> > No wonder it puts you to sleep. Here you are with an IQ of nearly 170
> > and to have to listen to perfect morons using 10 gallon words
> > inappropriately must just lull you into unconsciousness before they
> > reach the end of their speil. You have to be a masochist!
>
> Just trying to support my fellow ham, Art Bell. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

I lost interest in Art Bell when he interviewed a lady who said,
"I got into the mind of the spider, as he crawled across the wall."
Mike

3490. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 20:47:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <JPref.15083$D13.6436@newssvr11.news.prodigy.com>
Source record: 67637

amdx wrote:
> I lost interest in Art Bell when he interviewed a lady who said,
> "I got into the mind of the spider, as he crawled across the wall."

Now "Be The Beast" is on the National Geographic channel.
Did you hear Art Bell interview Wayne Green?
--
73, Cecil http://www.qsl.net/w5dxp

3491. Re: W9INN antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 21:14:29 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-ECE901.15142815112005@newsclstr02.news.prodigy.com>
Source record: 67638

In article <78ydnb1E5L2fxOveRVn-gg@comcast.com>,
"Steve" <sahd@hotmail.com> wrote:

> My question is when running a ballun as the W9INN antenna does.
> Can it be hung right to the tower leg or should it be on a stand off.
> To keep it away from the tower legs buy 3

Steve,

I have been using a W9INN antenna system for years and I don't think Bill (w9inn now SK) ever sold an antenna with a balun. His antennas came with a balun looking device that was just a center insulator.

FYI, I have my W9INN 80/40 dipole mounted on a 1 foot stand off with cord and pulley arrangement for easy adjustments. I modified the antenna by adding extra wire sets for the WARC bands and it now should be called a fan dipole in a Vee configuration.

It has always performed well and we are all going to miss Bill, W9INN. I recalled years ago working Bill on 40 meters and he said I was the first person he had ever really worked on the air using one of his antennas.

73 Dick AA5VU

3492. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 21:45:55 UTC
From: "Chuck W." <cwyatt@w3minds.com>
Message-ID: <1132091155.708383.72350@o13g2000cwo.googlegroups.com>
Source record: 67639

CA wrote:
> "Mike Luther" <mike.luther@ziplog.com> skrev i meddelandet
> news:11nc9k5k5cqsu0e@corp.supernews.com...
> > Chuck
> >
> > Chuck W. wrote:
> >> Is there any major advantage of mounting a Butternut vertical on top of
> >> my house which would put it around 45 feet versus ground mounting it?
> >> Seems like for years I've worked lots of stations with ground mounted
> >> verticals. So long as I've got lots of radials I would have a low
> >> angle of radiation, yes?
> >>
> >> Thanks,
> >>
> >> Chuck
> >> W1CEW
> >>
>
>
> Check this page:
> http://www.qsl.net/df3lp/projects/vertical/index.html
>
> "Do not mount groundplane antennas at heights between 0.25 and 1.25
> wavelength. At those levels above ground most of the energy will be radiated
> at angles of 27° to 45° into the ionosphere. This phenomenon seems to be
> independent to the number of radials or other counterpoises. Further
> simulations indicates that this is true for all other variants of vertical
> antenna systems too. "
>
> 73
> SM6PXJ Chris

Thanks!

Looks like a groundmounted vertical is the way to go for low-angle DX.
I'll watch out for the lightning as well!

3493. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 21:52:28 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <m2mkn157eh60dtumbivj5aoclj6g1v3hr8@4ax.com>
Source record: 67640

On Tue, 15 Nov 2005 20:47:37 GMT, Cecil Moore <mycall@arrl.net> wrote:

>amdx wrote:
>> I lost interest in Art Bell when he interviewed a lady who said,
>> "I got into the mind of the spider, as he crawled across the wall."
>
>Now "Be The Beast" is on the National Geographic channel.
>Did you hear Art Bell interview Wayne Green?

Wayne's recommended reading list was pretty amazing. Did they really
fake the moon shot in a TV studio?

bob
k5qwg

3494. Re: Need Info on Roelof Bakker [PA0RDT] "Mini-Whip" Active Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 22:00:27 UTC
From: johan aeq <pe1aeq@amsat.og>
Message-ID: <9bee7$437a5c4f$52ad139c$20939@news.versatel.nl>
Source record: 67641
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Hello,
Roel lives in The Netherlands in Middelburg.
His emailadres is @amsat.org.
I suggest you should email him.
If you like i can give you his telephonenumber or addres....
Greetings Johan PE1AEQ

"RHF" <rhf-newsgroups@pacbell.net> schreef in bericht
news:1132024512.503523.92070@g14g2000cwa.googlegroups.com...
> Steve Muldoon [N8KOM]
>
> Roelof Bakker's "PA0RDT Mini-Whip".
> http://beaconworld.org.uk/images1/alspics/miniwhiplarge.jpg
>
> I have also added a new antenna recently, the amazing
> little "mini-whip" designed and developed by fellow
> Dutch NDB Enthusiast Roelof Bakker, PA0RDT.
>
> This small 'active whip' is not much longer than my pen,
> and works very well from its perch at the top of my bird
> feeding station in my back garden.
>
> If space is a problem at your QTH, or you are planning
> some outdoor operating in the near future, one of these
> impressive little devices might be just what you are
> looking for.
>
> NOTE - There seems to be few references to the PA0RDT
> "Mini-Whip" Active Antenna.
>
> ~ RHF
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/
>
> = = = In Shortwave-SWL-Antenna@yahoogroups.com,
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/6525
> = = = "Steve Muldoon" <n8kom@w...> wrote:
>
> Greetings All -
>
> Can anyone provide, or direct me to design information
> or reference material for the Roelof Bakker PA0RDT
> "Mini-Whip" Active antenna?
>

> Saw a reference to this Antenna on the BeaconWorld website.
>
> http://beaconworld.org.uk/beaconrx.htm
>
> Thanks - Steve N8KOM
> .
> .
> . .
> .
>

3495. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 22:22:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Nctef.28886$6e1.6612@newssvr14.news.prodigy.com>
Source record: 67642

Bob Miller wrote:
> Wayne's recommended reading list was pretty amazing. Did they really
> fake the moon shot in a TV studio?

I saw "Destination Moon" back in the '50's.
--
73, Cecil http://www.qsl.net/w5dxp

3496. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 22:42:35 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1132094555.444327.290250@o13g2000cwo.googlegroups.com>
Source record: 67643

Now that we have heard all the benefits of various loop antennas, I have a question about the physical part of the antenna. I am planning on erecting an 80 meter or perhaps 160 meter square loop antenna. The question is how have you fixed the corners of your loop antenna? Can the antenna wire move in the insulator so as to equalize the force on each side? Or is the insulator in the corner fastened tightly to the antenna wire? Also, what type of insulators are your using in the corners? Ceramic compression? Glass, Other type ceramic? Anyone using plastic insulators?

TIA
Paul, KD7HB
Redmond, OR

3497. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-15 23:36:43 UTC
From: jgboyles@aol.com
Message-ID: <1132097803.396182.263410@z14g2000cwz.googlegroups.com>
Source record: 67644

pdrahn@coinet.com wrote:
> Now that we have heard all the benefits of various loop antennas, I
> have a question about the physical part of the antenna. I am planning
> on erecting an 80 meter or perhaps 160 meter square loop antenna. The
> question is how have you fixed the corners of your loop antenna? Can
> the antenna wire move in the insulator so as to equalize the force on
> each side? Or is the insulator in the corner fastened tightly to the
> antenna wire? Also, what type of insulators are your using in the
> corners? Ceramic compression? Glass, Other type ceramic? Anyone using
> plastic insulators?
>
> TIA
> Paul, KD7HB
> Redmond, OR

Hi Paul, Make the loop out of insulated stranded #14 wire from Home Depot, Lowes ect.. The corners can be of UV resistant rope with a loop in it. The wire will slide in the rope loop. Should handle a KW and stay up a long time. Don't need glass, ceramic or any other type insulator.
Gary N4AST

3498. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 00:24:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <B_uef.16832$q%.7176@newssvr12.news.prodigy.com>
Source record: 67645

pdrahn@coinet.com wrote:
> Also, what type of insulators are your using in the
> corners? Ceramic compression? Glass, Other type ceramic? Anyone using
> plastic insulators?

Ceramic electric fence insulators are ideal for loop corners.
--
73, Cecil http://www.qsl.net/w5dxp

3499. Re: Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 01:14:36 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <RHvef.834$Y82.621@bignews4.bellsouth.net>
Source record: 67646

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:26953-437A1A6E-1050@storefull-3256.bay.webtv.net...
> Mike wrote:
> "Just looking for a discussion regarding fesign of a great BCB radio."
>
> It has already been done. The SCR 274 N or ARC-5 series included a
> receiver which covered most of the AM broadcast band. With a wire
> connected to its antenna post, a unique signal appears every 10 KHz
> Across the dial. All that`s needed is transistorization. I used one of
> the originals with a 12-V dynamotor as a a car radio for years.
>
> Best regards, Richard Harrison, KB5WZI

If you can find a R-390 or R-392 and copy the front-end of that sweet
receiver, - THEN you'd have a fine one.

3500. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 01:46:53 UTC
From: py8elo <py8elo.1ykksu@news.radiobanter.com>
Message-ID: <py8elo.1ykksu@news.radiobanter.com>
Source record: 67647

Hi Dave,
I believe the resistor should not be inductive and it should have at
least 30% of the transmission power therefore, for 1500 Watts it should
be of at least 500 Watts.
I build the balun for this antenna (andthe antenna) but I believe in
your country is not difficult to acquire it.
I hope it can help you.
VY 73s,
Silva.
PY8ELO

Dave Wrote:
> I'd like to build a replica of the B&W 65 or 90 folded dipole antenna.
>
> I know that there are a lot of arguments against this type of antenna
> but for the convienience, I would like to have one anyway.
>
> $220 - $250 seems a bit steep to buy one.
>
> I have read L.B. Cebik's article on Terminated Wideband Dipoles,
> http://www.cebik.com/wbfd.html but have been unable to find a source
> for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>
> The only resistors of that value and wattage I have found are
> wirewounds which I assume are not suitable because they are inductive.
>
> For an antenna to handle legal limit 1500 watts is it necessary for
> the terminating resistor to be 1500 watts? It seems to me that you
> would hope that the majority of the power would be dissappated by the
> wire and not the resistor.
>
> Does anyone know where I can find a plan for the balun (or a resonably
> priced commercially made one)? How about the resistor?
>
> Thanks,
>
> Dave

--
py8elo

3501. Re: Need Info on Roelof Bakker [PA0RDT] "Mini-Whip" Active Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 09:16:31 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1132132591.387217.306300@g43g2000cwa.googlegroups.com>
Source record: 67648
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Johan Aeg - Thank You for the Offer ~ RHF

I now have Roelof Bakker's eMail Address and have sent him
an eMail with some Questions about the PA0RDT "Mini-Whip"
Active Antenna.
http://beaconworld.org.uk/images1/alspics/miniwhiplarge.jpg
.
.
. .
.

3502. Re: Hi-Fi tuner aerial connection query.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 14:41:05 UTC
From: JohnEllicottington@lycos.co.uk
Message-ID: <1132152065.242328.14240@z14g2000cwz.googlegroups.com>
Source record: 67649

Dave Oldridge wrote:
> JohnEllicottington@lycos.co.uk wrote in news:1132062816.151387.236660
> @g49g2000cwa.googlegroups.com:
>
> > Hi
> > I would like to connect my hi-fi's tuner to my TV's communial aerial
> > socket on the wall with the aid of some sort of coaxial splitter, is
> > this possible? On the rear of the hi-fi are the aerial connectors which
> > appear to accept strands of exposed wire by pressing and releasing a
> > small lever. The five connections are split between 300ohm, 75ohm and
> > AM. Whats the best way to get a decent reception from the tuner?
> > Thanks for any advice.
>
> You can get passive splitters that are fairly good devices. Try any radio-
> TV parts store for one of those. Connect one output to your regular TV's
> antenna connection and the other to the 75ohm input on your tuner. This
> will get you any FM signals that are being carried on the communal system.
> For AM, you're better off just attaching as long a piece of wire as you
> can, unless you want to get into special active antennas.
>
> --
> Dave Oldridge+
> ICQ 1800667

Thanks for the reply Dave.
>From my question you will probably realise that I am a complete novice
here. Can you send me a link to an image of the passive splitter you
have in mind. Everything that I looked at on the web did not seem
appropriate. Just to elaborate I will be able to connect a two stranded
wire to the back of my hi-fi's tuner aerial sockets (To the 75ohm
inputs as you recommend), so how will I connect the other end of the
wire to the passive splitter?
Johno

3503. Re: Speaking of A.M. reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 15:44:12 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <cn0s43-nee.ln1@p400bob.personal.cox.net>
Source record: 67650

Dont know Mike

I would suspect by itself I/Q detection/demod wouldnt help in a
situation where AM stations are using the exact same frequency.

Two antennas/RX detect systems could certainly be used if you can get a
usable phase diff between stations and use that for phase cancellation.
(ie not an I/Q RX as such) Could even do that in software and be very
specific as to what phase diff range is cancelled. You'd have to sample
at RF rather than AF though which makes the project more $/complicated.

You could also DSP filter based on audio content. That would be a real
difficult one!

Directive antenna?

Cheers Bob

amdx wrote:

> Ok, how about the Tayloe detector, it has a strong front end and I and Q
> outputs.
> Anyway to use this to eliminate stations on the same freq. Maybe two
> antennas and two
> detectors phased or computer manipulated?
>
> Mike

3504. Re: Hi-Fi tuner aerial connection query.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 16:12:09 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <qbmmn15r9girgr5cr803m7eaps01v63h5j@4ax.com>
Source record: 67651

On 15 Nov 2005 05:53:36 -0800, JohnEllicottington@lycos.co.uk wrote:

>Hi
>I would like to connect my hi-fi's tuner to my TV's communial aerial
>socket on the wall with the aid of some sort of coaxial splitter, is
>this possible? On the rear of the hi-fi are the aerial connectors which
>appear to accept strands of exposed wire by pressing and releasing a
>small lever. The five connections are split between 300ohm, 75ohm and
>AM. Whats the best way to get a decent reception from the tuner?
>Thanks for any advice.
>Johno

Do you have Radio Shacks in the UK? I'd just go to them or someone
similar, and let them provide you with a splitter and the appropos
cables. (Enter "splitter" at the RS site and it comes up with 35
matches.)

bob
k5qwg

3505. feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 16:19:33 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132157973.945787.48940@g14g2000cwa.googlegroups.com>
Source record: 67652

Hi Group,
Recently,I put up a linear-loaded dipole for
160-10m. It's ladderline,4/1 balun,
to coax,to good brand auto-tuner. It's supposed to work with 100ft.
of ladderline,BUT....
It wouldn't cover the lower portions of 160. To get this antenna to
work on 160, I had to cut
off 20ft. of ladderline, AND also use a 50ft. piece of coax! I tried
using only 20ft. of coax
because that's all I need to get to my tuner,but it didn't work! ! !
What happened here, to me,goes against almost everything
that I learned about
feedlines! Change the lenth of coax ? The 100ft. of ladderline
was at least 1/4 wavelenth
of 160,right? The feedpoint is at 55ft. on a tower (about 2ft.
away the tower) the ends are
in an inverted-"V" at about 15ft. above the ground. I do have a 80m/
272ft. loop also in the
1/8 of an acre back yard. Some small 2 & 6m beams hung of the
tower,not near enough to
cause intereaction. WHY AM I HAVING such a hard time getting this
antenna to cover
this bandspread ??? Also, IF I have a multi-band antenna,feed with
ladderline ONLY, to
a very good tuner; Why are the signals that I rercieve on the higher
bands,(160-10m)
usually SO LOW in strength ? Ex: On 160 or 80,the antennas s-meter
usually reads
over s-9 at night,o.k. Now, the same antenna on 10m or 20m during
the day are reading
very low; mostly around 3's and 4's. I guess that I really don't
think that calling THESE
antennas "a 160-10m antenna" or my Loop a 80-10m antenna! ! I've
had both antennas
up now for at least a month. Signals for 20m-10m need a different
antenna, In my
opinion. BUT, I'm still trying to understand exactly just WHAT
antennas can or cannot
do for me.
73's,and keep
radio-active,

Paladin

3506. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 16:45:44 UTC
From: W4LM <larrymoss@citcom.net>
Message-ID: <dlfnns$4khu$1@news3.infoave.net>
Source record: 67653

Paul,
It really doesn't matter to much how you prepare or fix the corners. I have used free floating and fastened down tight. If they are in the trees sooner of later the wire will snap regardless of how you have the corners prepared. The alpha-delta cin insulator from Radio Works $1.50 are very good one to consider using.
Larry/W4LM
<pdrahn@coinet.com> wrote in message
news:1132094555.444327.290250@o13g2000cwo.googlegroups.com...
> Now that we have heard all the benefits of various loop antennas, I
> have a question about the physical part of the antenna. I am planning
> on erecting an 80 meter or perhaps 160 meter square loop antenna. The
> question is how have you fixed the corners of your loop antenna? Can
> the antenna wire move in the insulator so as to equalize the force on
> each side? Or is the insulator in the corner fastened tightly to the
> antenna wire? Also, what type of insulators are your using in the
> corners? Ceramic compression? Glass, Other type ceramic? Anyone using
> plastic insulators?
>
> TIA
> Paul, KD7HB
> Redmond, OR
>

3507. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 16:49:48 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <c00f0$437b6310$42b8ebae$2489@EDELTACOM.COM>
Source record: 67654

I don't know much about these antennas but I have a friend in Colorado who has one and we often talk on 20 or 40 meters. He has only 100 watts output and he puts a strong signal into Alabama. It certainly seems to work for him. I have a Carolina Windom and I believe his Isotron performs better than my windom.

Bill W4WEG

"Dave Oldridge" <doldridg@leavethisoutshaw.ca> wrote in message news:Xns970C6FCF481CEdoldridgsprintca@24.71.223.159...
> I've been seeing pictures of these weird antennas for years. Near as I
> can
> tell from the picture, it's essentially a heavily-loaded very short dipole
> with two large capacity hats at the ends. But it's impossible to tell
> from
> the pictures what the exact configuration is. Can anyone tell me exactly
> what's happening? Is the mast part of the radiating system? The
> feedline?
> The literature (including the manuals) sort of implies that it is.
>
> Also, from the pictures, I get the impression that the standard mast-mount
> configuration is mostly vertically polarized. This would certainly
> account
> for reports I have read that the antenna is a bit of a dud at short range
> on 80m.
>
> If someone has a computer model for it for MMHAMSOFT's modeller, that
> would
> be GREAT!
>
> The reason I'm asking is that I'm in the process of trying to design
> something really low profile for a second floor apartment balcony for 75
> and 80m.
>
> --
> Dave Oldridge+
> VA7CZ
> ICQ 1800667

3508. FS: RG-213/U Coax Cable

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 17:57:49 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <CqKef.195$dv.11@fed1read02>
Source record: 67655

RG-213/U, 50 Ohm, low loss, high power handling, Coax Cable, Made in USA,
meets or exceeds MIL-C-17 specs.
Ideal replacement for RG-8/U.

10 to 99 feet $.75/ft
100 to 999 feet $.66/ft
1,000 feet $600.00

For your free copy of our new catalog,

please email sales@AAARFProducts.com

or see www.aaarfproducts.com

3509. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 18:21:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <aNKef.19563$tV6.15951@newssvr27.news.prodigy.net>
Source record: 67656

Paladin wrote:
> BUT, I'm still trying to understand exactly just WHAT
> antennas can or cannot do for me.

That's what antenna modeling programs are for. A free demo
version of EZNEC is available at www.eznec.com and will
probably do what you want done including the primary
transmission line length.
--
73, Cecil http://www.qsl.net/w5dxp

3510. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 18:25:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <2QKef.19566$tV6.17446@newssvr27.news.prodigy.net>
Source record: 67657

Bill Grimwood wrote:
> I don't know much about these antennas but I have a friend in Colorado who
> has one and we often talk on 20 or 40 meters. He has only 100 watts output
> and he puts a strong signal into Alabama. It certainly seems to work for
> him. I have a Carolina Windom and I believe his Isotron performs better
> than my windom.

Due, no doubt, to radiation from his feedline. If you both
replaced the vertical section of your feedline with a good
ground-plane vertical, it might improve even more.
--
73, Cecil http://www.qsl.net/w5dxp

3511. Re: FS: RG-213/U Coax Cable

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 18:28:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <QSKef.19568$tV6.15596@newssvr27.news.prodigy.net>
Source record: 67658

AAA RF Products wrote:
> For your free copy of our new catalog,
> please email sales@AAARFProducts.com
> or see www.aaarfproducts.com

FYI, for sale postings are against the guidelines for this
newsgroup. rec.radio.swap may be the appropriate newsgroup
but I don't remember if commercial postings are allowed.
--
73, Cecil http://www.qsl.net/w5dxp

3512. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 18:47:57 UTC
From: EasyRider <easyrider@shaw.ca>
Message-ID: <x9Lef.512499$oW2.328105@pd7tw1no>
Source record: 67659

<pdrahn@coinet.com> wrote in message
news:1132094555.444327.290250@o13g2000cwo.googlegroups.com...
> Now that we have heard all the benefits of various loop antennas, I
> have a question about the physical part of the antenna. I am planning
> on erecting an 80 meter or perhaps 160 meter square loop antenna. The
> question is how have you fixed the corners of your loop antenna? Can
> the antenna wire move in the insulator so as to equalize the force on
> each side? Or is the insulator in the corner fastened tightly to the
> antenna wire? Also, what type of insulators are your using in the
> corners? Ceramic compression? Glass, Other type ceramic? Anyone using
> plastic insulators?
>
> TIA
> Paul, KD7HB
> Redmond, OR

Hi Paul and the group,

I let my corners float and all I use are pvc 1/2 or 3/4 pipe 90 deg. elbows with dacron rope tied to around them then flug over a tree. Been using this method for years. No pulleys or extra fancy methods just rope and a elbow, this way I can move the antenna around if I choose to change my feed point at any time. Also allows for the stresses to even themselves out between the trees depending on how the wind blows. Although one tree is a very small sapling that stands about 40 feet high and the other three trees can pull it via the antenna wire with no great effort at all. Also have enough slack in the antenna to allow for rapid wind changes.
Everyone has a different method and most are very good and serve the purpose they were intended to, one persons idea may not work in another area, but to each his own method works otherwise there would be a lot of trial and error going on, hi hi. Been there done that and got the hat to show for it to.
I'm fortunate in my area as I don't get much wind at all, although I have used a similar method on the west coast of Vancouver Island with weighted milk jugs instead of tying off the support line for two of the four support lines.

73...de ve7agw, Al
Port Alberni, BC

3513. Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 19:24:39 UTC
From: mcalhoun@ksu.edu
Message-ID: <dlg11n$qf5@unix1.cc.ksu.edu>
Source record: 67661

What kind of "ground" should I use to EZNEC-model a flat-top dipole antenna
of which one side will be about 7 feet above and parallel to the peak of
my house roof and the other half will be about 30 feet above the yard.

My house is a story-and-a-half (the usual attic was a dormitory for my
long-gone kids) over a full basement (which just happens to have both
a Ufer ground in the basement-wall footings and a "ring ground" around
the outside and at the level of the footings). Thus most of one-half
of the antenna will be over the usual Kansas soil (about a foot of fertile
stuff above many feet of more clay-like stuff) while the other half will
be above the roof above the attic/dormitory above the ground floor above
the basement above the footings.

So will this be a "good", "bad", "average", or ??? ground for EZNEC-
modeling purposes?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

3514. Building small 80 meter loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 19:33:51 UTC
From: "John.Gotwals" <John.Gotwals@insightbb.com>
Message-ID: <zQLef.543822$x96.409488@attbi_s72>
Source record: 67660

I am beginning my planning and construction of a small loop antenna for 80 meters. The loop will be constructed out of 3/4" copper pipe, octagon shaped, and have a perimeter of 72 feet. The plane of the loop will be vertical and will be resonated by a variable capacitor in series with the top pipe section. The voltage and current through the capacitor have very large values.

See http://tinyurl.com/bwobb for more information. Any comments, thoughts, and advice will be greatly appreciated.

John, N9JG

3515. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 20:07:41 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11nn4cq294u6d2f@corp.supernews.com>
Source record: 67662

Cecil Moore wrote:
> Bill Grimwood wrote:
>
>> I don't know much about these antennas but I have a friend in Colorado
>> who has one and we often talk on 20 or 40 meters. He has only 100
>> watts output and he puts a strong signal into Alabama. It certainly
>> seems to work for him. I have a Carolina Windom and I believe his
>> Isotron performs better than my windom.
>
>
> Due, no doubt, to radiation from his feedline. If you both
> replaced the vertical section of your feedline with a good
> ground-plane vertical, it might improve even more.

Bill;

The best antenna for you is the antenna that works. I use a B&W folded dipole antenna daily. It does the job I need it to do. There are those that deride it as a "lossy dummy load". What it is is an antenna that dumps any excess energy into a 600 ohm resistor. The excess energy is that which is reflected back into the finals by any other antenna. It allows me to QSY and be tuned to any frequency I wish to use. In that I use NTIA frequencies in addition to Ham frequencies this it the best antenna for my use. As I said it works.

Dave WD9BDZ

3516. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 20:17:12 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11nn4unsmn4ib2@corp.supernews.com>
Source record: 67663

Dave;

The only source of resistors and baluns that I have found suitable for making a B&W antenna is B&W. The terminating resistor is 600 ohms non-inductive i.e. carbon. The balun is 12 to 1 i.e. 600:50.

If you do find instructions on making the balun please let me know. I use my B&W BWD-90 daily and it does the job I want it to do. I need broad band instant QSY for my radio.

Dave WD9BDZ

py8elo wrote:

> Hi Dave,
> I believe the resistor should not be inductive and it should have at
> least 30% of the transmission power therefore, for 1500 Watts it should
> be of at least 500 Watts.
> I build the balun for this antenna (andthe antenna) but I believe in
> your country is not difficult to acquire it.
> I hope it can help you.
> VY 73ï¿½s,
> Silva.
> PY8ELO
>
> Dave Wrote:
>
>>I'd like to build a replica of the B&W 65 or 90 folded dipole antenna.
>>
>>I know that there are a lot of arguments against this type of antenna
>>but for the convienience, I would like to have one anyway.
>>
>>$220 - $250 seems a bit steep to buy one.
>>
>>I have read L.B. Cebik's article on Terminated Wideband Dipoles,
>>http://www.cebik.com/wbfd.html but have been unable to find a source
>>for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>>
>>The only resistors of that value and wattage I have found are
>>wirewounds which I assume are not suitable because they are inductive.
>>
>>For an antenna to handle legal limit 1500 watts is it necessary for
>>the terminating resistor to be 1500 watts? It seems to me that you
>>would hope that the majority of the power would be dissappated by the

>>wire and not the resistor.
>>
>>Does anyone know where I can find a plan for the balun (or a resonably
>>priced commercially made one)? How about the resistor?
>>
>>Thanks,
>>
>>Dave
>
>
>

3517. Self capacitance of solenoid coils

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 21:03:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlg6qmmfn1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67664

COPIED FROM ANOTHER NEWSGROUP

> I see you are a follower of Medhurst.
>
> You might like
> http://www.eagleware.com/pdf/apps/2020_FiltOscUsingSolenoid.pdf
>
> Andy, M1EBV
==========

Andy,

Thanks for pointing me towards the above document.

I've never heard of Medhurst. Or anybody else who might have messed about with an arithmetical treatment of the subject. I've never bothered to look.

I can't understand all the details (the paper is not very well written) but I gave the paper a couple of speedreads.

It's interesting because it treats a solenoid as a transmission line.

A few years back I evolved explicit formulae for calculating the self-capacitance and self-resonant frequency of single-layer, solenoid coils. Such coils are fairly common. They are used, for example, as RF chokes and, when wound with coaxial cable, as chokes in coaxial transmission lines. Sometimes they are just a hank of a few turns of coaxial cable. Apart from their connecting wires they are, in effect, isolated in space. Long solenoids also form helically wound vertical antennas which can be top-loaded with a rod. Or horizontal, short, continuously loaded dipoles where the resonant frequency is required to be predictable in advance of construction.

With chokes it is required to calculate the band of frequencies over which the impedance exceeds a fairly high given value.

My formulae are based on transmission lines with conductor length and diameter corresponding to length and diameter of the solenoid. I discovered this by analysis of the problem. (The author of the article discovered it by accident when making measurements.) Provided the number of turns is greater than 5 or 6, even with close-spaced turns, the capacitance between turns can be ignored. Very thin wire compared with wire spacing does decrease overall capacitance but not because wire-to-wire capacitance is less.

As a check on the formula, if the wire is stretched out to be an exceedingly loose helix, then the resonant frequency becomes that of a

straight length of wire - the wire is just a half-wavelength dipole and its resonant frequency coincides with the formula.

Several of my programs use the formula which incorporates an inverse hyperbolic function. It always struck me as being incongruous to use such complicated functions for such a simple matter of calculating such a very small, inconspicuous capacitance. See programs SELFRES3, SOLNOID3, HELICAL3. There are other programs in which self-capacitance matters but the program user is unaware of it. What use could he make of it if values were displayed?

An Autic Antenna Analyser can be used to measure the self-resonant frequency of a solenoid coil very accurately. Just place a 1 or 2-turn link-coupling around the CENTRE of the coil without any other connections. Connect the coil to the meter via an 18-inch length of loosely-twisted pair of wires. Suspend the coil in free-space using only the twisted pair. On the impedance magnitude range, tune the analyser for a VERY sharp rise in impedance - and there you have it. Maximum impedance will be several hundred ohms. Q will be very igh - it is easy to miss resonance. So much for old-wives tales about poor Q at self-resonance. You may notice a sharp null in the meter reading at a very slightly higher frequency which is due to a series-resonance in conjunction with the twisted-pair and the meter itself. If you can't detect a null, don't worry about it.

This method works (I know of no other) with short fat loading coils, with 160-meter helical antennas 6 feet long with 1500 turns, and with coaxial chokes using a hank of a dozen turns, 8 inches in diameter. It fails when the coil's resonant frequency exceeds the range of the meter.

By the way, the self-capacitance of coils depends on their close environment. It can jump about all over the place and change when long connecting leads are soldered on. My formula applies to a coil in free-space as the sensible starting point. I could derive an approxima te formula for your toroidal coils, they are only bent transmission lines, but at the age of 80 I don't wish to expend any further time on the subject. <smiley>

Reg, G4FGQ.

3518. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 21:03:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlg6qmmfn2@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67665

Just call it "poor" ground. But try them all.

My guess is that it will make very little difference in performance as calculated by EZNEC whatever you call it.

Horizontal or sloping dipoles are insenstive to what's underneath them. Radiating efficiency will be in the right ballpark.

The structure, position and height of your house will have a much greater but indeterminate effect on radiation pattern and you cannot model your house using EZNEC. Even nearby neighbor's houses will have some effect. But you will never know what these effects are compared with the ideal pattern as presented by EZNEC.

Antenna height above what's underneath is the most important parameter.

In all probability, you will get around and about very well. Many amateurs do very nicely with even more peculiar antenna systems.

Reg.

==========

<mcalhoun@ksu.edu> wrote in message
news:dlg11n$qf5@unix1.cc.ksu.edu...
> What kind of "ground" should I use to EZNEC-model a flat-top dipole
antenna
> of which one side will be about 7 feet above and parallel to the
peak of
> my house roof and the other half will be about 30 feet above the
yard.
>
> My house is a story-and-a-half (the usual attic was a dormitory for
my
> long-gone kids) over a full basement (which just happens to have
both
> a Ufer ground in the basement-wall footings and a "ring ground"
around
> the outside and at the level of the footings). Thus most of
one-half
> of the antenna will be over the usual Kansas soil (about a foot of
fertile
> stuff above many feet of more clay-like stuff) while the other half
will
> be above the roof above the attic/dormitory above the ground floor

above
> the basement above the footings.
>
> So will this be a "good", "bad", "average", or ??? ground for EZNEC-
> modeling purposes?
> --
> --Myron A. Calhoun.
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and
cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785)
539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety,
Rifle, Pistol)

3519. support vertical with PVC?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 21:38:45 UTC
From: eternalsquire@comcast.net
Message-ID: <1132177125.071506.97410@g44g2000cwa.googlegroups.com>
Source record: 67666

All,

Do any of you see a problem in RF tuning or resonance with supporting a vertical pipe radiator by a vertical pipe base, seperated by a PVC coupler so that the base can be part of the ground system?

Thanks,

The Eternal Squire

3520. Re: Isotron antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 22:27:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <DnOef.19599$tV6.13009@newssvr27.news.prodigy.net>
Source record: 67667

David G. Nagel wrote:
> The excess energy is
> that which is reflected back into the finals by any other antenna.

Sorry, in a tuned system, the "excess energy" is re-reflected
back toward the antenna at the match point. Here's an example:

100w XMTR--50 ohm coax--+--1/2WL of 300 ohm twinlead--50 ohm antenna

More than half the forward power is reflected from the antenna
but it is turned around and re-reflected back toward the antenna
at the coax/twinlead junction at point '+'. The reflected energy
reaching the finals is ZERO!

Reflected energy, per se, is not bad. Reflected energy that is
allowed to reach the finals is bad. In most systems, an antenna
tuner solves the problem.
--
73, Cecil http://www.qsl.net/w5dxp

3521. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 22:31:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <srOef.19600$tV6.2322@newssvr27.news.prodigy.net>
Source record: 67668

David G. Nagel wrote:
> The only source of resistors and baluns that I have found suitable for
> making a B&W antenna is B&W.

> The terminating resistor is 600 ohms non-inductive i.e. carbon.

I've got about 50 of those 50w suckers in my junk box. They
don't have to be carbon. If one reverses the coil direction
of the resistance wire at mid-point in a wire-wound resistor,
the inductance is minimumized over a certain range of frequencies.
That's what the military often does.
--
73, Cecil http://www.qsl.net/w5dxp

3522. Re: support vertical with PVC?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-16 22:34:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <utOef.19601$tV6.693@newssvr27.news.prodigy.net>
Source record: 67669

eternalsquire@comcast.net wrote:
> Do any of you see a problem in RF tuning or resonance with supporting a
> vertical pipe radiator by a vertical pipe base, seperated by a PVC
> coupler so that the base can be part of the ground system?

If you keep water off the PVC, all your problems will be mechanical.
A couple of years in the Phoenix sun usually turns PVC into powder.
--
73, Cecil http://www.qsl.net/w5dxp

3523. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 00:42:30 UTC
From: "Chuck W." <cwyatt@w3minds.com>
Message-ID: <1132188150.526483.44450@g43g2000cwa.googlegroups.com>
Source record: 67670

Looks like I have an opportunity to purchase a Butternut HF6VX 80-10
vertical with the CPK counterpoise for maybe $340 for the whole thing.
Seem like a reasonable thing to do? Decent antenna? Otherwise I have
my 80 meter full wave loop at about 50 feet. I'm assuming the vertical
would outperform the loop for DX on 75 and 40 meter bands.

-Chuck
W1CEW

3524. Re: Building small 80 meter loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 01:53:19 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <hdonn112unuvji83d35uk2ic9hagkrvlhu@4ax.com>
Source record: 67671

On Wed, 16 Nov 2005 19:33:51 GMT, "John.Gotwals"
<John.Gotwals@insightbb.com> wrote:

>I am beginning my planning and construction of a small loop antenna for 80
>meters. The loop will be constructed out of 3/4" copper pipe, octagon
>shaped, and have a perimeter of 72 feet. The plane of the loop will be
>vertical and will be resonated by a variable capacitor in series with the
>top pipe section. The voltage and current through the capacitor have very
>large values.
>
>See http://tinyurl.com/bwobb for more information. Any comments, thoughts,
>and advice will be greatly appreciated.
>
>John, N9JG
>

That loop is detailed in chapter 5 of the ARRL Antenna Book (19th
ed.). Might be worth getting the book if you're going to build it.

bob
k5qwg

3525. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 03:10:39 UTC
From: py8elo <py8elo.1ymfgw@news.radiobanter.com>
Message-ID: <py8elo.1ymfgw@news.radiobanter.com>
Source record: 67672

Hi Dave,
I use a 1K Ohms resistor and a 16:1 balun. But you can use a 600 Ohms
resistor an a 12:1 balun.
I hope it can help you.
Best 73's,
Silva PY8ELO.

David G. Nagel Wrote:
> Dave;
>
> The only source of resistors and baluns that I have found suitable for
> making a B&W antenna is B&W. The terminating resistor is 600 ohms
> non-inductive i.e. carbon. The balun is 12 to 1 i.e. 600:50.
>
> If you do find instructions on making the balun please let me know. I
> use my B&W BWD-90 daily and it does the job I want it to do. I need
> broad band instant QSY for my radio.
>
> Dave WD9BDZ
>
>
> py8elo wrote:
>
> Hi Dave,
> I believe the resistor should not be inductive and it should have at
> least 30% of the transmission power therefore, for 1500 Watts it
> should
> be of at least 500 Watts.
> I build the balun for this antenna (andthe antenna) but I believe in
> your country is not difficult to acquire it.
> I hope it can help you.
> VY 73's,
> Silva.
> PY8ELO
>
> Dave Wrote:
>
> I'd like to build a replica of the B&W 65 or 90 folded dipole antenna.
>
> I know that there are a lot of arguments against this type of antenna
> but for the convienience, I would like to have one anyway.
>

> $220 - $250 seems a bit steep to buy one.
>
> I have read L.B. Cebik's article on Terminated Wideband Dipoles,
> http://www.cebik.com/wbfd.html but have been unable to find a source
> for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>
> The only resistors of that value and wattage I have found are
> wirewounds which I assume are not suitable because they are inductive.
>
> For an antenna to handle legal limit 1500 watts is it necessary for
> the terminating resistor to be 1500 watts? It seems to me that you
> would hope that the majority of the power would be dissappated by the
> wire and not the resistor.
>
> Does anyone know where I can find a plan for the balun (or a resonably
> priced commercially made one)? How about the resistor?
>
> Thanks,
>
> Dave
>
>
>

--
py8elo

3526. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 04:43:30 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11no2k7ascst16b@corp.supernews.com>
Source record: 67673

Silva;

No reason why your plan should not work. It might require differend
spacing but that is what amateur radios if for: experimentation.
I will give it a try. Where did you get your balun or how did you make
it? Is there a web page showing how?

Dave WD9BDZ

py8elo wrote:

> Hi Dave,
> I use a 1K Ohms resistor and a 16:1 balun. But you can use a 600 Ohms
> resistor an a 12:1 balun.
> I hope it can help you.
> Best 73ï¿½s,
> Silva PY8ELO.
>
> David G. Nagel Wrote:
>
>>Dave;
>>
>>The only source of resistors and baluns that I have found suitable for
>>making a B&W antenna is B&W. The terminating resistor is 600 ohms
>>non-inductive i.e. carbon. The balun is 12 to 1 i.e. 600:50.
>>
>>If you do find instructions on making the balun please let me know. I
>>use my B&W BWD-90 daily and it does the job I want it to do. I need
>>broad band instant QSY for my radio.
>>
>>Dave WD9BDZ
>>
>>
>>py8elo wrote:
>>
>>Hi Dave,
>>I believe the resistor should not be inductive and it should have at
>>least 30% of the transmission power therefore, for 1500 Watts it
>>should
>>be of at least 500 Watts.
>>I build the balun for this antenna (andthe antenna) but I believe in
>>your country is not difficult to acquire it.
>>I hope it can help you.
>>VY 73ï¿½s,

>>Silva.
>>PY8ELO
>>
>>Dave Wrote:
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>>
>>I know that there are a lot of arguments against this type of antenna
>>but for the convienience, I would like to have one anyway.
>>
>>$220 - $250 seems a bit steep to buy one.
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>>I have read L.B. Cebik's article on Terminated Wideband Dipoles,
>>http://www.cebik.com/wbfd.html but have been unable to find a source
>>for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>>
>>The only resistors of that value and wattage I have found are
>>wirewounds which I assume are not suitable because they are inductive.
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>>For an antenna to handle legal limit 1500 watts is it necessary for
>>the terminating resistor to be 1500 watts? It seems to me that you
>>would hope that the majority of the power would be dissappated by the
>>wire and not the resistor.
>>
>>Does anyone know where I can find a plan for the balun (or a resonably
>>priced commercially made one)? How about the resistor?
>>
>>Thanks,
>>
>>Dave
>>
>>
>>
>
>
>

3527. Re: Building small 80 meter loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 05:00:44 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <08Uef.337219$084.285796@attbi_s22>
Source record: 67674

Thanks for the suggestion, and yes I have the book.

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:hdonn112unuvji83d35uk2ic9hagkrvlhu@4ax.com...
>
> That loop is detailed in chapter 5 of the ARRL Antenna Book (19th
> ed.). Might be worth getting the book if you're going to build it.
>
> bob
> k5qwg
>
>

3528. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 05:21:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11no4qp4romsvb7@corp.supernews.com>
Source record: 67675

mcalhoun@ksu.edu wrote:
> What kind of "ground" should I use to EZNEC-model a flat-top dipole antenna
> of which one side will be about 7 feet above and parallel to the peak of
> my house roof and the other half will be about 30 feet above the yard.
>
> My house is a story-and-a-half (the usual attic was a dormitory for my
> long-gone kids) over a full basement (which just happens to have both
> a Ufer ground in the basement-wall footings and a "ring ground" around
> the outside and at the level of the footings). Thus most of one-half
> of the antenna will be over the usual Kansas soil (about a foot of fertile
> stuff above many feet of more clay-like stuff) while the other half will
> be above the roof above the attic/dormitory above the ground floor above
> the basement above the footings.
>
> So will this be a "good", "bad", "average", or ??? ground for EZNEC-
> modeling purposes?

The short answer is that it doesn't matter.

I do recommend using "Real, High Accuracy" ground for all models unless it's necessary to make a zero-resistance connection to the ground plane.

When using "high accuracy" ground, the ground quality is used by the program for two purposes: 1. To determine the antenna impedance and currents, and 2. To calculate the pattern, which depends on ground reflections. The former doesn't make much difference if the antenna is more than about 0.1 or 0.2 wavelength high. The latter takes place (except for very high angle signals) well beyond your house or other nearby objects, and for horizontally polarized antennas doesn't make much difference anyway (again except for high angle signals).

Whatever effect your house will have on the antenna, you won't be able to effectively model it. It will be chiefly due to the conductors in the house -- wiring, pipes, rain gutters, etc. -- and it's just about impossible to know enough about them to model them decently. Fortunately, they're unlikely to have much of an effect unless something happens to be nearly self-resonant. If that happens, you're likely to know about it via other means (e.g., TVI or other RFI, "hot" conductors or appliances when transmitting, or even lights that go on when you transmit), and will be wanting to spoil the resonance rather than simply modeling the offending conductor.

Roy Lewallen, W7EL

3529. Re: support vertical with PVC?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 05:27:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11no56sqt026546@corp.supernews.com>
Source record: 67676

eternalsquire@comcast.net wrote:
> All,
>
> Do any of you see a problem in RF tuning or resonance with supporting a
> vertical pipe radiator by a vertical pipe base, seperated by a PVC
> coupler so that the base can be part of the ground system?

No. I have a four-square array in which each element is a quarter wavelength at 40 meters, 1-1/4" diameter at the bottom, and clamped to an 8 foot galvanized steel chain link fence line pole driven 4 feet into the ground. The antenna and 4 feet of protruding post are spaced 1/4" by slices of thick wall PVC conduit, and clamped with muffler clamps. The protruding pipe is connected to the ground system. They've been up for about 20 years. The only effect of the pipe on 40 is to add a bit of shunt C at the base of the antenna which lowers the self-resonant frequency a bit. The effect is considerably more pronounced at higher frequencies where the antenna base impedance is higher.

Roy Lewallen, W7EL

3530. Re: Building small 80 meter loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 06:13:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jo7on15ii5r1e2n88cdhijpvlnvq1c89od@4ax.com>
Source record: 67677

On Wed, 16 Nov 2005 19:33:51 GMT, "John.Gotwals"
<John.Gotwals@insightbb.com> wrote:
> resonated by a variable capacitor in series with the top pipe section.

Hi John,

The bottom would seem to be far more accessible and you should loop
feed the entire antenna (a loop inside the loop, that is) - Reg has
many times pointed out this matter of simplicity solves many
headaches.

73's
Richard Clark, KB7QHC

3531. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 06:16:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tu7on112682nif5h91e72tuijjq6d1tbll@4ax.com>
Source record: 67678

On 16 Nov 2005 16:42:30 -0800, "Chuck W." <cwyatt@w3minds.com> wrote:

>Looks like I have an opportunity to purchase a Butternut HF6VX 80-10
>vertical with the CPK counterpoise for maybe $340 for the whole thing.
>Seem like a reasonable thing to do? Decent antenna? Otherwise I have
>my 80 meter full wave loop at about 50 feet. I'm assuming the vertical
>would outperform the loop for DX on 75 and 40 meter bands.

Hi Chuck,

The bottom one or two bands of multiband verticals tend to be
disappointing in performance - or so report many to this forum.

If you do get it, don't take the loop down.

73's
Richard Clark, KB7QHC

3532. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 07:47:35 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1132213655.270278.214240@f14g2000cwb.googlegroups.com>
Source record: 67679

...i dont know if it still exists but try to hunt for the Moregain
antenna (WATCH the spelling).
another place to look is www.hardcore DX.com . they had material on
the TD2 antenna including formulas for design.
maybe that can help
Saandy 4Z5KS

3533. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 08:25:14 UTC
From: richardharrison@webtv.net
Message-ID: <8495-437C3E6A-308@storefull-3257.bay.webtv.net>
Source record: 67680

Al, VE7AGW wrote:
"I have used a similar method on the west coast of Vancouver Island with weighted milk jugs, instead of tying off the support line for two of the four support lines."

I just heard Ray Price sing "For the Good Times" on KKYX, San Antonio, 680 KHz. The station is 200 miles from here. The sntenna is the built-in loopstick in the radio. I listen 24 hours, all country msic, all the time for more thann 32 years.

Best regards, Richard Harrison, KB5WZI

3534. Re: how to combat noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 09:14:49 UTC
From: nm5k@wt.net
Message-ID: <1132218889.179340.298840@z14g2000cwz.googlegroups.com>
Source record: 67681

>Here is the situation: have an inverted V for 80m and noise level is
>S9.. Not good really....

Dunno...Sounds like it was working to me.

> I did the next logical step and tryied magnetic loop for 80, reciving
>only, indoors.

What are you trying to hear? Sounds kinda illogical to me, if
you are working NVIS... :/

>What would you do in this situation? Loop, magnetic loop, dipole,
short
>beverage perhaps???

I'd go back to what was working. The dipole. If the noise is from the
shack,
the use of baluns or chokes to decouple the feedline can be used.
But I think the noise you heard was the normal atmospheric noise you
would hear on 80m. I often get S 8-9 noise levels on 75 until winter
really kicks in. It's normal. Noise is normal. It's RF. I'd be more
worried
about *not* hearing any noise, than I would be hearing it.
Also, don't lay the antenna on the roof. The higher you can get away
from
it, the better. A loop will be no better than the dipole in general.
Both are about equally efficient if fed with coax. But the loop is
more wire, and more work.. :(
On 75m NVIS, almost all signals will be over the noise, unless you
have a local T storm brewing...Noise is not an issue...Well, not to the

ones with decent antennas... To one using a full size dipole fed with
coax, even 100w is plenty to get over 95% of the noise you will run
into. An S 9 noise level is no big deal if the signals are 20-40 over
9.
And this is the norm.. Only the guys running funky gimmick antennas
will be hard to hear.. :/
There are some weird ideas around about noise... Almost as many
fairy tales as with grounds and shielded loops.. :) No joke.
Good antennas pick up noise. That is what they are designed to do.
After all, noise is just rf like any other signal. If the antenna is
"low"
noise, that usually means it's half crippled in some way, unless the
noise is ingress from the shack. :/ And thats from the lack of a balun,

choke, etc at the feedpoint. Easily cured. Just rolling a few turns of coax into a choke can reduce much of it. But like I say, I think your noise was normal band noise. Listen now, after the cold front blew through the country. I bet it's a tad quieter on that dipole now.
MK

3535. Emoto Rotators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 10:04:06 UTC
From: fred@nurk.com
Message-ID: <437c5597$0$9984$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 67682

Hi All,
I have been offered an unused Emoto 1103 (or 1102 - not sure as no external markings) at what appears to be a very reasonable price. The only problem is that it does not come with a control unit.
I have searched the 'net high and low for information but to no avail.
So - my choices seem to be:
1. Acquire a circuit of the rotator so that I may make my own control unit.
2. Purchase a suitable control unit (the local agent in Australia is unable to supply same)
3.Sell the rotator on behalf of the original vendor (a friend, who would be more than happy for me to do so)
4.Forget the whole thing and stick to bits of wire stuck up the nearest tree :)

Any help or advice will treated with the respect it deserves!
Cheers
Alan
VK2ADB

3536. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 11:33:50 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <op.s0dueoxocdad2j@elbc-crz2m9noal>
Source record: 67683

On Wed, 16 Nov 2005 19:42:30 -0500, Chuck W. <cwyatt@w3minds.com> wrote:

> Looks like I have an opportunity to purchase a Butternut HF6VX 80-10
> vertical with the CPK counterpoise for maybe $340 for the whole thing.
> Seem like a reasonable thing to do? Decent antenna? Otherwise I have
> my 80 meter full wave loop at about 50 feet. I'm assuming the vertical
> would outperform the loop for DX on 75 and 40 meter bands.
>
> -Chuck
> W1CEW
>

HI Chuck,

Don't know about 80 & 40 but it will help fill in the nulls in the loops
pattern on the upper bands also.. I'm with the other commentor though
don't take the loop down.
73 Dave
KC1DI

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

3537. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 11:37:19 UTC
From: "Chuck W." <cwyatt@w3minds.com>
Message-ID: <1132227439.410712.140350@g49g2000cwa.googlegroups.com>
Source record: 67684

Hi Richard,

Yes, I've been very pleased with the loop, worked about 30 or 40 countries in the last year on it, mostly on 20 and 18 meters, but it does well on 40 as well, being fed with balanced line. According to EZNEC it does well on 15 and 10, but with the current sunspot cycle who knows. With the all-too-few openings on 6 meters this summer, I did have some pretty good luck, though I could tell the yagis could hear quite a bit more than I could.

73,

Chuck

3538. 'modified' skyloop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 12:59:19 UTC
From: HankG <hank@invalid.com>
Message-ID: <dLSdncm2mdw44-HeRVn-vQ@comcast.com>
Source record: 67685

Due to a small and irregularly shaped lot, I am using Cliff Donley's Hot Kiss [(see message 2471 Yahoo RX-320 group) (a 33 foot folded dipole w/7 foot matching stub, all made of 300 ohm twinlead, fed with 75 ohm coax through a standard tv balun)] antenna.

The antenna performs well for HF (receive only). As I also like to listen to MW and LW broadcasts, I used a long wire (directly connected), passed out of a window (I'm on the second floor), and run around the house perimeter at ground level. The total length about 200 feet. The antenna works but is rather noisy.

I considered installing a skyloop in my attic, but the total length would only be about 120 feet.

I am asking the resident experts to comment on this idea:
The plan is to run a loop made from 4-conductor telephone station wire around the attic floor, connecting each end-of wire to a wire of a different color, therefore amounting to one long wire (about 480 feet) encircling my attic in four turns. A higher number of conductors could be used if practical. Also, a matching transformer and coax are options.

As mentioned, this would be for 'receive only'. Would a tuner be necessary? What would be an optimal length for the loop?

O.K., let me have it. Thanks for any suggestions.

HankG

3539. Re: Building small 80 meter loop antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 13:23:17 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <9v%ef.553131$_o.310056@attbi_s71>
Source record: 67686

It seems to me that it's a lot easier, from a mechanical standpoint, to use a simple gamma feed (without a capacitor) at the bottom of the loop. This is a one band antenna, so finding an optimum match should not be that difficult. If I feed the loop at the bottom with a gamma match, then symmetry requires the capacitor to be at the top of the loop.

However, if using a second one-fifth sized loop as the feed loop allows me to mount the capacitor at the bottom, then this type of design might become attractive. It is not clear to me how easy it would be to keep the relative positions of the two loops fixed.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:jo7on15ii5r1e2n88cdhijpvlnvq1c89od@4ax.com...
> On Wed, 16 Nov 2005 19:33:51 GMT, "John.Gotwals"
> <N9JG@insightbb.com> wrote:
>> resonated by a variable capacitor in series with the top pipe section.
>
> Hi John,
>
> The bottom would seem to be far more accessible and you should loop
> feed the entire antenna (a loop inside the loop, that is) - Reg has
> many times pointed out this matter of simplicity solves many
> headaches.
>
> 73's
> Richard Clark, KB7QHC

3540. Re: Hi-Fi tuner aerial connection query.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 14:05:44 UTC
From: JohnEllicottington@lycos.co.uk
Message-ID: <1132236344.130175.134390@o13g2000cwo.googlegroups.com>
Source record: 67687

Bob Miller wrote:
> On 15 Nov 2005 05:53:36 -0800, JohnEllicottington@lycos.co.uk wrote:
>
> >Hi
> >I would like to connect my hi-fi's tuner to my TV's communial aerial
> >socket on the wall with the aid of some sort of coaxial splitter, is
> >this possible? On the rear of the hi-fi are the aerial connectors which
> >appear to accept strands of exposed wire by pressing and releasing a
> >small lever. The five connections are split between 300ohm, 75ohm and
> >AM. Whats the best way to get a decent reception from the tuner?
> >Thanks for any advice.
> >Johno
>
> Do you have Radio Shacks in the UK? I'd just go to them or someone
> similar, and let them provide you with a splitter and the appropos
> cables. (Enter "splitter" at the RS site and it comes up with 35
> matches.)
>
> bob
> k5qwg

Thanks for the input so far. Maplins is a similar store in the UK to
Radio Shacks. So just to confirm, I have a two stranded aerial wire.
One end of the aerial wire I am going to connect the two stands to the
tuners 75ohm aerial sockets. What do I do with the two strands of wire
at the other end of the aerial wire? As I have said I am a complete
novice here but from this response this probably does not need
repeating. Johno

3541. Re: Hi-Fi tuner aerial connection query.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 14:57:10 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <j46pn1husfsn27uj196slervgqck9g8i2l@4ax.com>
Source record: 67688

On 17 Nov 2005 06:05:44 -0800, JohnEllicottington@lycos.co.uk wrote:

>Bob Miller wrote:
>> On 15 Nov 2005 05:53:36 -0800, JohnEllicottington@lycos.co.uk wrote:
>>
>> >Hi
>> >I would like to connect my hi-fi's tuner to my TV's communial aerial
>> >socket on the wall with the aid of some sort of coaxial splitter, is
>> >this possible? On the rear of the hi-fi are the aerial connectors which
>> >appear to accept strands of exposed wire by pressing and releasing a
>> >small lever. The five connections are split between 300ohm, 75ohm and
>> >AM. Whats the best way to get a decent reception from the tuner?
>> >Thanks for any advice.
>> >Johno
>>
>> Do you have Radio Shacks in the UK? I'd just go to them or someone
>> similar, and let them provide you with a splitter and the appropos
>> cables. (Enter "splitter" at the RS site and it comes up with 35
>> matches.)
>>
>> bob
>> k5qwg
>
>Thanks for the input so far. Maplins is a similar store in the UK to
>Radio Shacks. So just to confirm, I have a two stranded aerial wire.
>One end of the aerial wire I am going to connect the two stands to the
>tuners 75ohm aerial sockets. What do I do with the two strands of wire
>at the other end of the aerial wire?

Connect to the splitter. The easiest thing would be to draw a diagram
of what you have, take it to Maplins, and they can pick out a splitter
that will work, along with any cables or plug adaptors you might need.
It's sorta hard to describe all this in text :-)

Bob
k5qwg

>As I have said I am a complete
>novice here but from this response this probably does not need
>repeating. Johno

3542. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 15:15:25 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87zmo3qp9u.fsf@qmc.ph.msstate.edu>
Source record: 67689

>Looks like I have an opportunity to purchase a Butternut HF6VX 80-10
>vertical with the CPK counterpoise for maybe $340 for the whole thing.
>Seem like a reasonable thing to do? Decent antenna? Otherwise I have
>my 80 meter full wave loop at about 50 feet. I'm assuming the vertical
>would outperform the loop for DX on 75 and 40 meter bands.

If it is a used antenna, that seems overpriced. You can buy a new
one for less than that (without the CPK). You can easily make your own
radials for much cheaper.

I've used HF6V's at several qth's. It's a good antenna on 40 if you
have enough radials. On 80 it's not that great. But it will be useful in
addition to the loop.

Tor
N4OGW

3543. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 15:50:37 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <hF1ff.22318$dO2.14359@newssvr29.news.prodigy.net>
Source record: 67690

If you were to make the load from maybe ten 8.2k 10-20w wire wound
resistors, is the overall inductance really a problem after you parallel
a bunch of them?
Mike

py8elo wrote:
> Hi Dave,
> I believe the resistor should not be inductive and it should have at
> least 30% of the transmission power therefore, for 1500 Watts it should
> be of at least 500 Watts.
> I build the balun for this antenna (andthe antenna) but I believe in
> your country is not difficult to acquire it.
> I hope it can help you.
> VY 73ï¿½s,
> Silva.
> PY8ELO
>
> Dave Wrote:
>
>>I'd like to build a replica of the B&W 65 or 90 folded dipole antenna.
>>
>>I know that there are a lot of arguments against this type of antenna
>>but for the convienience, I would like to have one anyway.
>>
>>$220 - $250 seems a bit steep to buy one.
>>
>>I have read L.B. Cebik's article on Terminated Wideband Dipoles,
>>http://www.cebik.com/wbfd.html but have been unable to find a source
>>for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>>
>>The only resistors of that value and wattage I have found are
>>wirewounds which I assume are not suitable because they are inductive.
>>
>>For an antenna to handle legal limit 1500 watts is it necessary for
>>the terminating resistor to be 1500 watts? It seems to me that you
>>would hope that the majority of the power would be dissappated by the
>>wire and not the resistor.
>>
>>Does anyone know where I can find a plan for the balun (or a resonably
>>priced commercially made one)? How about the resistor?
>>
>>Thanks,
>>

>>Dave
>
>
>

3544. Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 16:30:39 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <ke2ff.173$qw.10@fed1read07>
Source record: 67691

At URL:
http://home.tiscali.ch/hb9abx/ant--abx-e.htm

--
CL -- I doubt, therefore I might be !

3545. Re: 900MHz antenna at sea surface

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 16:40:02 UTC
From: AB2RC <avflinsch@REMOVE_THISatt.net>
Message-ID: <slrndnpcj2.b72.Silfax@minimac.linux1.lan>
Source record: 67692

On 2005-11-03, Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> 2- Sea action means an omni gain antenna is contraindicated (not a good
> idea) because there will be larger variations in signal strength as it bobs
> around. This is because this "gain" is obtained by compressing the
> radiation pattern more toward the horizontal and as the "bouy" rocks, you

True --- but I would go with the omni directional anyway, for the same
reasons that you mentioned.

Sea action will move the antenna about in the xy plane as well as up and
down. There is more than simple up and down bobbing going on here.
There would be no guarantee that the forward lobe of a directional
antenna would be pointing towards the receiving antenna.

--
Alex/AB2RC

3546. Re: 1/4 vertical antenna height

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 16:52:11 UTC
From: larryj@teleport.com
Message-ID: <1132246331.085709.122100@g47g2000cwa.googlegroups.com>
Source record: 67693

Yes, the lowest bands don't work so well on the Butternut, but you should be able to find a used one for considerably less than that price. (I've been seeing them go used for $75-$125).

I've had a Butternut HF6V on my roof for some years now, which wound up being about 15 feet above the ground, with one radial for 80M, and about four radials for 40-Meters (and the higher bands). I've had this antenna at five different locations over the years.
Using it, I've made 5BDXCC (plus 30M DXCC). I only have about 185 countries on 80-Meters with it, and only about 260 countries on 40-Meters with it. Then there's 160-Meters - only about 40 countries so far.

Some day, I hope to have a real antenna for the lower bands. Right now, the Butternut is down since there's some building construction going on at my home, and all I have up now is an 80-Meter Inverted-Vee, which is now my "all band" antenna. It's up about 25 feet above ground in the center, five feet above ground on the ends, it's fed with 450-ohm ladder line. Sometimes it takes me four or five calls to get through some of the pileups! (H40 on 80-Meters, KH5 on 20M RTTY, etc. in the last week).

YMMV.....

LJ

3547. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 17:30:25 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <R63ff.553426$_o.391582@attbi_s71>
Source record: 67694

Great picture. What happens when the guy buys gas and drives under the overhang at the filling station?

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message news:ke2ff.173$qw.10@fed1read07...
> At URL:
> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
>

3548. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 17:46:40 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <AI3ff.180$qw.123@fed1read07>
Source record: 67695

"John, N9JG" <john@gotwals.XremoveY.com> wrote in message
news:R63ff.553426$_o.391582@attbi_s71...
> Great picture. What happens when the guy buys gas and drives under the
> overhang at the filling station?
>
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> news:ke2ff.173$qw.10@fed1read07...
>> At URL:
>> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
>>
>
>
Maybe he uses a gas can (;-)

--
CL -- I doubt, therefore I might be !

3549. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 17:57:50 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <yw3ff.3469$43.368@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 67696

On 17/11/2005 12:30 PM, John, N9JG wrote:
> Great picture. What happens when the guy buys gas and drives under the
> overhang at the filling station?
>
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> news:ke2ff.173$qw.10@fed1read07...
>> At URL:
>> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
>>
>
It's hard to tell from the photo, but it looks like it can be adjusted
to lay flat. Whether or not this can be done in a convenient manner is
another thing, I guess.

3550. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 18:40:01 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <6bvu43-scr.ln1@mail.specsol.com>
Source record: 67697

clvrmnky <clvrmnky-uunet@coldmail.com.invalid> wrote:
> On 17/11/2005 12:30 PM, John, N9JG wrote:
> > Great picture. What happens when the guy buys gas and drives under the
> > overhang at the filling station?
> >
> > "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> > news:ke2ff.173$qw.10@fed1read07...
> >> At URL:
> >> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
> >>
> >
> It's hard to tell from the photo, but it looks like it can be adjusted
> to lay flat. Whether or not this can be done in a convenient manner is
> another thing, I guess.

For only 20 Euros he'll tell you how to build one and all your questions
will be answered.

Har.

--
Jim Pennino

Remove .spam.sux to reply.

3551. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 18:47:56 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <wf4ff.553514$_o.59677@attbi_s71>
Source record: 67698

Well, I don't care who you are, at least once any normal person is going to forget and drive right up to the pump without remembering to first lower or remove the antenna.

"clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message news:yw3ff.3469$43.368@nnrp.ca.mci.com!nnrp1.uunet.ca...
[stuff]
> It's hard to tell from the photo, but it looks like it can be adjusted to
> lay flat. Whether or not this can be done in a convenient manner is
> another thing, I guess.

3552. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 18:48:03 UTC
From: CA <no@mail.com>
Message-ID: <Df4ff.150841$dP1.508544@newsc.telia.net>
Source record: 67699

Or is this antenna story just a way to earn some money? You have to send the guy at least 20 Euros (approx 20 USD) in order to receive (hopefully) the construtional details in March 2006...

If it is a true ham project, I don't understand why the details can not be published on a simple web page. At least the outlines.

/SM6PXJ

"Caveat Lector" <UALLBeware@9984reader.com> skrev i meddelandet news:ke2ff.173$qw.10@fed1read07...
> At URL:
> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
>
> --
> CL -- I doubt, therefore I might be !
>
>
>
>
>
>
>

3553. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 19:28:45 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <j9mpn1147sjp4bq7mf2ub3ks5bdfj051t6@4ax.com>
Source record: 67700

On Thu, 17 Nov 2005 18:40:01 GMT, jimp@specsol.spam.sux.com wrote:

>clvrmnky <clvrmnky-uunet@coldmail.com.invalid> wrote:
>> On 17/11/2005 12:30 PM, John, N9JG wrote:
>> > Great picture. What happens when the guy buys gas and drives under the
>> > overhang at the filling station?
>> >
>> > "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
>> > news:ke2ff.173$qw.10@fed1read07...
>> >> At URL:
>> >> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
>> >>
>> >
>> It's hard to tell from the photo, but it looks like it can be adjusted
>> to lay flat. Whether or not this can be done in a convenient manner is
>> another thing, I guess.
>
>For only 20 Euros he'll tell you how to build one and all your questions
>will be answered.

I can make a better offer. For only $20 US, I will tell you how to
build a reduced size bridge that is only 10% of the length of what is
needed to span the river, but it will work just as well. Promise!

3554. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 19:45:03 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <j53v43-2n8.ln1@mail.specsol.com>
Source record: 67701

Wes Stewart <n7ws*@*yahoo.com> wrote:
> On Thu, 17 Nov 2005 18:40:01 GMT, jimp@specsol.spam.sux.com wrote:

> >clvrmnky <clvrmnky-uunet@coldmail.com.invalid> wrote:
> >> On 17/11/2005 12:30 PM, John, N9JG wrote:
> >> > Great picture. What happens when the guy buys gas and drives under the
> >> > overhang at the filling station?
> >> >
> >> > "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> >> > news:ke2ff.173$qw.10@fed1read07...
> >> >> At URL:
> >> >> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
> >> >>
> >> >
> >> It's hard to tell from the photo, but it looks like it can be adjusted
> >> to lay flat. Whether or not this can be done in a convenient manner is
> >> another thing, I guess.
> >>
> >For only 20 Euros he'll tell you how to build one and all your questions
> >will be answered.

> I can make a better offer. For only $20 US, I will tell you how to
> build a reduced size bridge that is only 10% of the length of what is
> needed to span the river, but it will work just as well. Promise!

Nah, I need a warf for my beachfront property in Arizona though.

--
Jim Pennino

Remove .spam.sux to reply.

3555. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 20:15:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Kx5ff.17205$q%.9594@newssvr12.news.prodigy.com>
Source record: 67702

Gene wrote:
> ...she who
> must be obeyed, will not allow any non factory holes !
> Any thoughts ? TIA Gene

Leave "she who must be obeyed" at the next rest stop?
--
73, Cecil, http://www.qsl.net/w5dxp

3556. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 20:55:40 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <g76ff.3487$43.1190@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 67703

On 17/11/2005 1:47 PM, John, N9JG wrote:
> Well, I don't care who you are, at least once any normal person is going to
> forget and drive right up to the pump without remembering to first lower or
> remove the antenna.
>
> "clvrmnky" <clvrmnky-uunet@coldmail.com.invalid> wrote in message
> news:yw3ff.3469$43.368@nnrp.ca.mci.com!nnrp1.uunet.ca...
> [stuff]
>> It's hard to tell from the photo, but it looks like it can be adjusted to
>> lay flat. Whether or not this can be done in a convenient manner is
>> another thing, I guess.
>
>
Right. I personally would only use such a rig under special situations
(i.e., the thing only goes on for a weekend or something.) Everyday
use is asking for trouble.

Mobile installations have their own challenges. I'd probably live with
the trade-offs and put a big old whip from front bumper to the back.
One should be able to use various tricks to electronically lengthen or
shorten the whip to tune to the range you want, right?

3557. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 21:03:14 UTC
From: Gene <moggy2cat@aol.com>
Message-ID: <1132261394.183332.323510@g43g2000cwa.googlegroups.com>
Source record: 67704

Cecil, 50 years married last april....too damm old to be
retrained...73`s Gene WB7NGI

3558. Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 21:47:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <61242$437cfa62$97d56a33$5030@ALLTEL.NET>
Source record: 67705

Nice article in WorldRadio December issue.

3559. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 22:20:19 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Dm7ff.22359$dO2.9041@newssvr29.news.prodigy.net>
Source record: 67706

Fred W4JLE wrote:
> Nice article in WorldRadio December issue.
>
Thanks, part I was in the Oct. issue -
Part II hopefully in Jan.
--
73, Cecil, http://www.qsl.net/w5dxp

3560. Geophysical Indices - "at a glance" freeware

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 22:27:08 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <11nq0u54rbt155@corp.supernews.com>
Source record: 67707

Greetings All,

You are invited to download and use the new version of GeoAlert-Extreme Wizard. The default download is known as QSL-ware. Which basically means freeware. <G>

The QSL-ware version has no time limit and automatically downloads and displays solar indices in a friendly - at a glance - manner.

www.taborsoft.com/gawiz/

Although many will be satisfied with the default version, advanced features are, of course, available when registered. Free 60-day trial also available.

Cheers,
Jim - KU5S

--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.

3561. CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS - Write ur CONGRESSPERSON NOW

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 23:32:33 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <Rp8ff.208$qw.57@fed1read07>
Source record: 67708

ATTENTION ALL AMATEUR RADIO OPERATORS

DO SOMETHING NOW

A CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS

WRITE YOUR CONGRESSPERSON

SEE SAMPLES AND TEXT OF THE BILL AT URL:

http://www.arrl.org/govrelations/hr3876/

OR CLICK BELOW

HR 3876, The Amateur Radio Emergency Communications Consistency Act of 2005

--
CL -- I doubt, therefore I might be !

3562. Re: CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS - Write ur CONGRESSPERSON NOW

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 23:50:04 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <4Zmdnak3-PKCiuDeRVn-hQ@web-ster.com>
Source record: 67709

Caveat Lector wrote:

> ATTENTION ALL AMATEUR RADIO OPERATORS
>
> DO SOMETHING NOW
>
> A CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS
>
> WRITE YOUR CONGRESSPERSON
>
> SEE SAMPLES AND TEXT OF THE BILL AT URL:
>
> http://www.arrl.org/govrelations/hr3876/
>
> OR CLICK BELOW
>
> HR 3876, The Amateur Radio Emergency Communications Consistency Act of 2005
>
>

An obvious fake! Who would believe our congress passing a bill with only two pages? Bet it has more when it finally gets through.

Sounds good, though.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3563. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 23:54:02 UTC
From: Gene <moggy2cat@aol.com>
Message-ID: <1132271642.707634.68420@z14g2000cwz.googlegroups.com>
Source record: 67710

Cecil, served with a MSGT Moore, at Keesler AFB, 1963, he was a ham...??? 73`s Gene

3564. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-17 23:54:09 UTC
From: Gene <moggy2cat@aol.com>
Message-ID: <1132271649.816747.308250@g44g2000cwa.googlegroups.com>
Source record: 67711

Cecil, served with a MSGT Moore, at Keesler AFB, 1963, he was a ham...??? 73`s Gene

3565. Re: CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS - Write ur CONGRESSPERSON NOW

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 00:10:51 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <LZ8ff.228$qw.141@fed1read07>
Source record: 67712

Came right out of QST
From the ARRL

--
CL -- I doubt, therefore I might be !

"Tim Wescott" <tim@seemywebsite.com> wrote in message
news:4Zmdnak3-PKCiuDeRVn-hQ@web-ster.com...
> Caveat Lector wrote:
>
>> ATTENTION ALL AMATEUR RADIO OPERATORS
>>
>> DO SOMETHING NOW
>>
>> A CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS
>>
>> WRITE YOUR CONGRESSPERSON
>>
>> SEE SAMPLES AND TEXT OF THE BILL AT URL:
>>
>> http://www.arrl.org/govrelations/hr3876/
>>
>> OR CLICK BELOW
>>
>> HR 3876, The Amateur Radio Emergency Communications Consistency Act of
>> 2005
>>
>>
> An obvious fake! Who would believe our congress passing a bill with only
> two pages? Bet it has more when it finally gets through.
>
> Sounds good, though.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

3566. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 00:50:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Oz9ff.20169$tV6.19797@newssvr27.news.prodigy.net>
Source record: 67713

Gene wrote:
> Cecil, served with a MSGT Moore, at Keesler AFB, 1963, he was a
> ham...??? 73`s Gene

There are so many Moore's that I have no idea who I am kin to.
I don't look anything like Archie Moore, for instance. Outside
of London, England, the city with the most Moore's is Houston.
--
73, Cecil http://www.qsl.net/w5dxp

3567. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 01:17:21 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <3maqn19heescsektooo9jnnc28liijd1is@4ax.com>
Source record: 67714

On Thu, 17 Nov 2005 19:45:03 GMT, jimp@specsol.spam.sux.com wrote:

>Wes Stewart <n7ws*@*yahoo.com> wrote:
>> On Thu, 17 Nov 2005 18:40:01 GMT, jimp@specsol.spam.sux.com wrote:
>
>> >clvrmnky <clvrmnky-uunet@coldmail.com.invalid> wrote:
>> >> On 17/11/2005 12:30 PM, John, N9JG wrote:
>> >> > Great picture. What happens when the guy buys gas and drives under the
>> >> > overhang at the filling station?
>> >> >
>> >> > "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
>> >> > news:ke2ff.173$qw.10@fed1read07...
>> >> >> At URL:
>> >> >> http://home.tiscali.ch/hb9abx/ant--abx-e.htm
>> >> >>
>> >> >
>> >> It's hard to tell from the photo, but it looks like it can be adjusted
>> >> to lay flat. Whether or not this can be done in a convenient manner is
>> >> another thing, I guess.
>> >
>> >For only 20 Euros he'll tell you how to build one and all your questions
>> >will be answered.
>
>> I can make a better offer. For only $20 US, I will tell you how to
>> build a reduced size bridge that is only 10% of the length of what is
>> needed to span the river, but it will work just as well. Promise!
>
>Nah, I need a warf (wharf) for my beachfront property in Arizona though.

This is your lucky day, I'm in Arizona and am an expert on those too.
Hurry, when W6 has "The Big One", there will be a rush.

3568. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 01:50:05 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11nqct8csfr3m16@corp.supernews.com>
Source record: 67715

"amdx" <amdx@worldnet.att.net> wrote in message
news:d198d$437a3b5c$18d64e2f$31782@KNOLOGY.NET...
> I lost interest in Art Bell when he interviewed a lady who said,
> "I got into the mind of the spider, as he crawled across the wall."

I distinctly recall him interviewing a guy who was discussing how, if you just thought about it hard enough, you could be telekinetic and move large boudlers around just like Luke in The Empire Strikes Back. He kept saying something like, "You can't be Jesus, you can't be Satan, but anything else you can be!"

:-)

Just because Art interviews loons doesn't mean that (1) he's one or (2) his listeners are. It's just entertainment, plain and simple...

3569. Re: The C. Crane Co. CCRadio Plus

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 01:54:48 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11nqd636kjjuqaf@corp.supernews.com>
Source record: 67716

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:m2mkn157eh60dtumbivj5aoclj6g1v3hr8@4ax.com...
> Wayne's recommended reading list was pretty amazing. Did they really
> fake the moon shot in a TV studio?

It's kinda humorously ironic that the reason some of these "we faked the moon landing" types are so sure of themselves is because they're so ignorant or just plain downright dumb that they, personally, can't understand all the science required to pull it off. Granted, there probably is no one single person who _does_, but at least most people are savvy enough to recognize that (1) there are people smarter -- much, much smarter! -- than themselves and (2) a bunch of average people with limited skills can, while working in a well-organized effort, achieve extraordinary results that no single human ever could.

3570. Re: Extend range for a 900 mhz phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 02:39:06 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <11nqffh21mbaub6@corp.supernews.com>
Source record: 67717

If you have luxury of space, you can construct radiator to your cordless phone base station and point it in the direction you need - you will get few dBs and this may be just enough. reflectors in order of increasing efficiency and sophistication: flat surface, corner, parabaloid.

<cocuixtle@gmail.com> wrote in message news:1131497691.878969.231670@g14g2000cwa.googlegroups.com...
> Hello, I am a newbie in this area of knowledge, I tried to find an
> answer to my question before posting but I could not. I want to have an
> extension phone 30 meters in straight line from the base. there are
> three walls between the desired point and the base. If I take the
> phone that I have with me (uniden, analog) it works but very poorly. I
> just need some improvement. I can purchase a 900 mhz dss if this will
> solve the problem, also, I can conect the antenna from the base to some
> antenna in the roof (both base and desired point are on the top of a
> building). Any suggestions?
>

3571. Re: Extend range for a 900 mhz phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 04:23:44 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11nqlql8kugjf36@corp.supernews.com>
Source record: 67718

Andrey wrote:

> If you have luxury of space, you can construct radiator to your cordless
> phone base station and point it in the direction you need - you will get few
> dBs and this may be just enough. reflectors in order of increasing
> efficiency and sophistication: flat surface, corner, parabaloid.
>
>
> <cocuixtle@gmail.com> wrote in message
> news:1131497691.878969.231670@g14g2000cwa.googlegroups.com...
>
>>Hello, I am a newbie in this area of knowledge, I tried to find an
>>answer to my question before posting but I could not. I want to have an
>>extension phone 30 meters in straight line from the base. there are
>>three walls between the desired point and the base. If I take the
>>phone that I have with me (uniden, analog) it works but very poorly. I
>>just need some improvement. I can purchase a 900 mhz dss if this will
>>solve the problem, also, I can conect the antenna from the base to some
>>antenna in the roof (both base and desired point are on the top of a
>>building). Any suggestions?
>>
>
>
>

Not to rain on your parade but home wireless phones are not permitted to have extended range antennas. They are constructed so as to prevent the addition of larger antennas. When you go looking for a new phone check the range specs. Do not take the numbers as accurate as the advertising department has the biggest say in what is printed on the box and instructions. Look for one of the more expensive phones as they will most likely be more accurate in what they say they will do. Good luck

Dave N

3572. Re: RG-213/U Coax Cable

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 04:39:02 UTC
From: Gene Rodgers <oldcodger@verizon.net>
Message-ID: <GVcff.162$Sg7.4@trnddc09>
Source record: 67719

FYI: Texas Towers in Dallas has RG-213/U for $.39 per ft.

"AAA RF Products" <sales@aaarfproducts.com> wrote in message
news:CqKef.195$dv.11@fed1read02...
> RG-213/U, 50 Ohm, low loss, high power handling, Coax Cable, Made in USA,
> meets or exceeds MIL-C-17 specs.
> Ideal replacement for RG-8/U.
>
> 10 to 99 feet $.75/ft
> 100 to 999 feet $.66/ft
> 1,000 feet $600.00
>
>
> For your free copy of our new catalog,
>
> please email sales@AAARFProducts.com
>
> or see www.aaarfproducts.com
>
>

3573. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 05:12:40 UTC
From: nm5k@wt.net
Message-ID: <1132290760.511891.45900@f14g2000cwb.googlegroups.com>
Source record: 67720

Well, I don't care who you are, at least once any normal person is
going to
> forget and drive right up to the pump without remembering to first lower or
> remove the antenna.

That antenna is a stunted runt compared to mine.
His is 1.5 m tall. Mine is 3.3 m tall in the driving
mode, 4.2 m tall in the parked mode. On mine, the
base of the antenna is on the truck cab at about
64 inches from ground. Even in the shorter driving
mode, my antenna is over 16 ft tall to the tip.
Of course, the antenna is flexible, and the stinger
is *very* flexible, and can take most any whack.
You might forget at the gas station. Once...:/
I don't forget. I use a quick connect, and if I drive
under something, I take it off, and lay it on the roof until
I drive through.
And yes, my antenna would kick his antenna's butt too
I bet. On 80m, it would probably be ugly. I note he uses
the common "gimmick" antenna sales pitches.
If in doubt, always compare the prospective wonder toy
with other fairly useless wonder toys.
And then omit to state the ground radial
conditions, etc, etc... Of course most mobiles
beat lame ground mounted verticals. This is normal.
My mobile beats my full size dipole at 42 ft on paths
over 800 miles or so. Again, fairly normal.
He says that antenna is the most efficient
that can be built for the size. I don't believe that by just
looking at it. He wants money to show the plans. :)
Hummmmm..... :/ Sorry. No sale.
Looks like a gimmick stick designed to
lure cashflow from the gullable. . :(
MK

3574. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 05:27:58 UTC
From: nm5k@wt.net
Message-ID: <1132291678.416867.141070@g44g2000cwa.googlegroups.com>
Source record: 67721

Or is this antenna story just a way to earn some money? You have to
send the
guy at least 20 Euros (approx 20 USD) in order to receive (hopefully)
the
construtional details in March 2006...

LOL. There are plenty of gullable suckers in the world.
Just watch. He'll have a whole boatload of them rounded
up after a while. All delivering *glowing* reports of the new
"technology". Same as the other gimmick antennas floating
around. He seems to be in the same part of the world as
another leading promoter of small gimmickry. You remember
those short ugly useless thangs that relied on feedline
current to operate? Yep, this thing is shorty's bigger bro.
Ready to rule the world of gimmick radiators. :)
Yeaaa hawwww! I'll be dumping my conventional antennas
at O-clock....:/ Of course, with the lack of free info, you
can't tell if it's a fat helical whip, oversized straight radiator
or what. Of course, this is all by design. You can't make
any money if you come right out and describe what it is,
like most normal people would do. I wonder if these plans
come with a money back warranty if one is not impressed
with the design?
MK

3575. Re: Hi-Fi tuner aerial connection query.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 05:43:33 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns9711DD00212B8doldridgsprintca@24.71.223.159>
Source record: 67722

JohnEllicottington@lycos.co.uk wrote in
news:1132152065.242328.14240@z14g2000cwz.googlegroups.com:

> Dave Oldridge wrote:
>> JohnEllicottington@lycos.co.uk wrote in news:1132062816.151387.236660
>> @g49g2000cwa.googlegroups.com:
>>
>> > Hi
>> > I would like to connect my hi-fi's tuner to my TV's communial
>> > aerial socket on the wall with the aid of some sort of coaxial
>> > splitter, is this possible? On the rear of the hi-fi are the aerial
>> > connectors which appear to accept strands of exposed wire by
>> > pressing and releasing a small lever. The five connections are
>> > split between 300ohm, 75ohm and AM. Whats the best way to get a
>> > decent reception from the tuner? Thanks for any advice.
>>
>> You can get passive splitters that are fairly good devices. Try any
>> radio- TV parts store for one of those. Connect one output to your
>> regular TV's antenna connection and the other to the 75ohm input on
>> your tuner. This will get you any FM signals that are being carried
>> on the communal system. For AM, you're better off just attaching as
>> long a piece of wire as you can, unless you want to get into special
>> active antennas.
>>
>> --
>> Dave Oldridge+
>> ICQ 1800667
>
> Thanks for the reply Dave.
>>From my question you will probably realise that I am a complete novice
> here. Can you send me a link to an image of the passive splitter you
> have in mind. Everything that I looked at on the web did not seem
> appropriate. Just to elaborate I will be able to connect a two
> stranded wire to the back of my hi-fi's tuner aerial sockets (To the
> 75ohm inputs as you recommend), so how will I connect the other end of
> the wire to the passive splitter?

Use a piece of coax. RG-59 should work for this run. Put an F-connector
on one end and just cut the other end open and split the braid from the
coax. The braid goes to the ground side of your 75 ohms and the center
conductor to the hot side. A cheap jumper and chop off the connector on
one end will do the job for you on the FM side and another one with both
ends bolted on for the TV side..

http://www.ramelectronics.net/html/rf-cable-satellite.html#splitter

The cheap {$9.99) RCA one is actually overkill for your application, I think (unless your cable has stuff on it past 1ghz).

--
Dave Oldridge+
ICQ 1800667

3576. Re: Emoto Rotators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 06:07:48 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <6pudndi-_ZMp8uDeRVn-hw@comcast.com>
Source record: 67723

<fred@nurk.com> wrote in message
news:437c5597$0$9984$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> Hi All,
> I have been offered an unused Emoto 1103 (or 1102 - not sure as no
> external markings) at what appears to be a very reasonable price. The only
> problem is that it does not come with a control unit.
> I have searched the 'net high and low for information but to no avail.
> So - my choices seem to be:
> 1. Acquire a circuit of the rotator so that I may make my own control
> unit.
> 2. Purchase a suitable control unit (the local agent in Australia is
> unable to supply same)
> 3.Sell the rotator on behalf of the original vendor (a friend, who would
> be more than happy for me to do so)
> 4.Forget the whole thing and stick to bits of wire stuck up the nearest
> tree :)
>
> Any help or advice will treated with the respect it deserves!
> Cheers
> Alan
> VK2ADB
>

http://ham.srsab.se/rotator/emotator.html

http://www.jamsat.or.jp/trakbox/manual/cnchart.txt

http://www.matsusaka.ne.jp/~ji1fgx/HAM/ea4tx/products/ars-rotators.htm

July 1996 posting

Eric --

I don't have any satellite or direct Orion experience but I've
installed a few and they do seem to be pretty brute. Result - increased
reliability. The digital control box looks nice but again no direct
experience.
>
>The alternative is the Emoto. This appears to be a beefier version of the
>Kenpro/Yaesu rotors. But they are analog controlled (I want to run the
>rotors from a Unix box), and I have yet to see anyone in this area with
them.

I ran a small survey a week or two ago (results as yet unpublished) and
asked about the Create and Emoto rotators since I don't have any direct
experience with them. To cut to the chase, the Create was given high marks

for reliability; the Emoto was not. Both rotators suffer from mediocre parts
and service support and both use the two-piece mast clamp which can be broken
easily during installation.

I don't know if this is helpful to you or just added to the band noise.

73, Steve K7LXC

3577. Re: CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS - Write ur CONGRESSPERSON NOW

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 13:32:13 UTC
From: Gerald <NoEmail@Spamblock.isp>
Message-ID: <meSdnUOwg5dHSuDenZ2dnUVZ_t-dnZ2d@giganews.com>
Source record: 67724

It is legit --- check http://thomas.loc.gov/ and key the bill number in the query box. This is the library of congress site.

"Tim Wescott" <tim@seemywebsite.com> wrote in message news:4Zmdnak3-PKCiuDeRVn-hQ@web-ster.com...
> Caveat Lector wrote:
>
>> ATTENTION ALL AMATEUR RADIO OPERATORS
>>
>> DO SOMETHING NOW
>>
>> A CC&R BILL HAS BEEN REINTRODUCED INTO CONGRESS
>>
>> WRITE YOUR CONGRESSPERSON
>>
>> SEE SAMPLES AND TEXT OF THE BILL AT URL:
>>
>> http://www.arrl.org/govrelations/hr3876/
>>
>> OR CLICK BELOW
>>
>> HR 3876, The Amateur Radio Emergency Communications Consistency Act of
>> 2005
>>
>>
> An obvious fake! Who would believe our congress passing a bill with only
> two pages? Bet it has more when it finally gets through.
>
> Sounds good, though.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

3578. Re: Extend range for a 900 mhz phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 14:24:15 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <11nropnf7fkhm5b@corp.supernews.com>
Source record: 67725

not permitted ... what? I am not suggesting to modify existing antenna
structure.
not permitted ... by whom? By FCC and other parasitic bodies who
monopoloized physical phenomena. bunch of crooks.
not permitted ... do you really care?

instead you suggest to buy more expensive phone - what a friend you are
:-)

"David G. Nagel" <nagel@core.com> wrote in message
news:11nqlql8kugjf36@corp.supernews.com...
> Andrey wrote:
>
> > If you have luxury of space, you can construct radiator to your cordless
> > phone base station and point it in the direction you need - you will get
few
> > dBs and this may be just enough. reflectors in order of increasing
> > efficiency and sophistication: flat surface, corner, parabaloid.
> >
> >
> > <cocuixtle@gmail.com> wrote in message
> > news:1131497691.878969.231670@g14g2000cwa.googlegroups.com...
> >
> > >>Hello, I am a newbie in this area of knowledge, I tried to find an
> > >>answer to my question before posting but I could not. I want to have an
> > >>extension phone 30 meters in straight line from the base. there are
> > >>three walls between the desired point and the base. If I take the
> > >>phone that I have with me (uniden, analog) it works but very poorly. I
> > >>just need some improvement. I can purchase a 900 mhz dss if this will
> > >>solve the problem, also, I can conect the antenna from the base to some
> > >>antenna in the roof (both base and desired point are on the top of a
> > >>building). Any suggestions?
> > >>
> > >
> > >
> > >
> >
> >
> > Not to rain on your parade but home wireless phones are not permitted to
> > have extended range antennas. They are constructed so as to prevent the
> > addition of larger antennas. When you go looking for a new phone check
> > the range specs. Do not take the numbers as accurate as the advertising
> > department has the biggest say in what is printed on the box and
> > instructions. Look for one of the more expensive phones as they will
> > most likely be more accurate in what they say they will do. Good luck

>
> Dave N

3579. Re: Emoto Rotators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 15:21:18 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <PcadnaYLtOf3bODenZ2dnUVZ_tGdnZ2d@comcast.com>
Source record: 67576

<fred@nurk.com> wrote in message
news:437c5597$0$9984$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> Hi All,
> I have been offered an unused Emoto 1103 (or 1102 - not sure as no
> external markings) at what appears to be a very reasonable price. The only
> problem is that it does not come with a control unit.
> I have searched the 'net high and low for information but to no avail.
> So - my choices seem to be:
> 1. Acquire a circuit of the rotator so that I may make my own control
> unit.
> 2. Purchase a suitable control unit (the local agent in Australia is
> unable to supply same)
> 3.Sell the rotator on behalf of the original vendor (a friend, who would
> be more than happy for me to do so)
> 4.Forget the whole thing and stick to bits of wire stuck up the nearest
> tree :)
>
> Any help or advice will treated with the respect it deserves!
> Cheers
> Alan
> VK2ADB
>
>
>
Depends on how much you know. If the Emoto is in the same price class as the Yaesu and HyGain, it would be worth while to build your own control box. I would not try to duplicate their unit; just go for something basic with a momentary contact DPDT switch for direction, and a 0 - 1 ma meter for an indicator. If this is a 3 wire or 4 wire unit, forget about it.

Tam/WB2TT

3580. Re: Extend range for a 900 mhz phone

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 16:52:54 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11ns1neeum6praf@corp.supernews.com>
Source record: 67577

Andrey;

That's correct it's not permitted. Besides the antenna's already on the
phone are optimal for the frequency.
That's correct the FCC is the parasitic body that does not permit
modifying the antenna.
That's correct I care.
That's correct. The more expensive phone, if carefully selected is the
better phone.
I hope that I am a good friend, not someone who advocates violation of
the law.

Dave N

BTW: If you can work it out a corner reflector would work.

Andrey wrote:
> not permitted ... what? I am not suggesting to modify existing antenna
> structure.
> not permitted ... by whom? By FCC and other parasitic bodies who
> monopoloized physical phenomena. bunch of crooks.
> not permitted ... do you really care?
>
> instead you suggest to buy more expensive phone - what a friend you are
> :-)
>
>
>
>
> "David G. Nagel" <nagel@core.com> wrote in message
> news:11nqlql8kugjf36@corp.supernews.com...
>
>>Andrey wrote:
>>
>>
>>>If you have luxury of space, you can construct radiator to your cordless
>>>phone base station and point it in the direction you need - you will get
>
> few
>
>>>dBs and this may be just enough. reflectors in order of increasing
>>>efficiency and sophistication: flat surface, corner, parabaloid.
>>>
>>>
>>><cocuixtle@gmail.com> wrote in message

>>>news:1131497691.878969.231670@g14g2000cwa.googlegroups.com...
>>>
>>>
>>>>Hello, I am a newbie in this area of knowledge, I tried to find an
>>>>answer to my question before posting but I could not. I want to have an
>>>>extension phone 30 meters in straight line from the base. there are
>>>>three walls between the desired point and the base. If I take the
>>>>phone that I have with me (uniden, analog) it works but very poorly. I
>>>>just need some improvement. I can purchase a 900 mhz dss if this will
>>>>solve the problem, also, I can conect the antenna from the base to some
>>>>antenna in the roof (both base and desired point are on the top of a
>>>>building). Any suggestions?
>>>>
>>>
>>>
>>>
>>
>>Not to rain on your parade but home wireless phones are not permitted to
>>have extended range antennas. They are constructed so as to prevent the
>>addition of larger antennas. When you go looking for a new phone check
>>the range specs. Do not take the numbers as accurate as the advertising
>>department has the biggest say in what is printed on the box and
>>instructions. Look for one of the more expensive phones as they will
>>most likely be more accurate in what they say they will do. Good luck
>>
>>Dave N
>
>
>

3581. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 19:02:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dll8g7ggr1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67578

Many years back I once had a 10m dipole about 8 feet from the house at cast-iron roof-gutter level. The Tx was in an upstairs bedroom. The short coaxial line to the dipole went through a hole in the bedroom wooden window frame.

Sunspots were at their best. On completion of the installation, much to my surprise, I worked my very first Australian (in the antipodes from Birmingham) and completed the log entry in exceptionally neat handwriting.

I then went downstairs and reported my conversation with Bill in Adelaide to my XYL. All she had to say was a brief "Your dinner's gone cold.". So much for her deflating enthusiasm!

But the most extrordinary thing about the episode was the fact that the bedroom 60-watt light bulb (admittedly a temporary arrangement) came on more strongly when the key was UP and went more dim when the key was DOWN.

I was running 100 watts from a Kenwood TS-520. The bedroom light was not being run from the 240-volt power wiring to the TS-520. After years of thinking about it, I have never found an entirely satisfactory explanation.

Reg, G4FGQ

3582. hey steveo!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 19:38:48 UTC
From: Landshark <landshark-hed@hotmail.com>
Message-ID: <1132342728.572080.291650@g49g2000cwa.googlegroups.com>
Source record: 67579
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.personals.gay

my cock is a quarter wave of 146.52 mhz.

how 'bout jerking me off and making it a top load????

steveo, your ass is wonderfull........i want to fill you up
again!!!!!!!!!

3583. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 19:43:04 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132342984.866710.306600@g49g2000cwa.googlegroups.com>
Source record: 67580

Cecil,
I do not know how to use such programs. I'm a "late"
bloomer,in computor terms.
I guess that I'm stuck with trial and error until I find a way to
shorten my feedline in the
same way that the antenna builder did in shortening the elements of
the linear-loaded
dipole. Long sentence,huh?
Paladin
The elements are 70ft. long each,BUT the electrical lenth IS really
210ft. per side.
I know that 100ft. of 450 ladderline didn't work.

3584. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 20:39:42 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11nsf0q8lfpfj1f@corp.supernews.com>
Source record: 67581

Reg Edwards wrote:
> Many years back I once had a 10m dipole about 8 feet from the house at
> cast-iron roof-gutter level. The Tx was in an upstairs bedroom. The
> short coaxial line to the dipole went through a hole in the bedroom
> wooden window frame.
>
> Sunspots were at their best. On completion of the installation, much
> to my surprise, I worked my very first Australian (in the antipodes
> from Birmingham) and completed the log entry in exceptionally neat
> handwriting.
>
> I then went downstairs and reported my conversation with Bill in
> Adelaide to my XYL. All she had to say was a brief "Your dinner's gone
> cold.". So much for her deflating enthusiasm!
>
> But the most extrordinary thing about the episode was the fact that
> the bedroom 60-watt light bulb (admittedly a temporary arrangement)
> came on more strongly when the key was UP and went more dim when the
> key was DOWN.
>
> I was running 100 watts from a Kenwood TS-520. The bedroom light was
> not being run from the 240-volt power wiring to the TS-520. After
> years of thinking about it, I have never found an entirely
> satisfactory explanation.
> ----
> Reg, G4FGQ
>
>
Reg;

Reminds me of my first contact using an 11 meter J-pole antenna that I made. It was only about 40 miles using 5 watts input AM. Not much by your achievement but to me at the time I thought it was wonderful.

As to you lamp dimming, I do not know what the wiring capacity of you house was but the transmitter was being fed by the same mains drop from the street as the lamp. That is, IMO, the most likely cause of the dimming. Just my guess.

Dave WD9BDZ

3585. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 21:19:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dllgh1$c96$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67582

"Cecil Moore" wrote
> That's what antenna modeling programs are for.

Cec, You should realise it's a waste of time pointing people towards
computer programs which require a 6-weeks full-time training course to
understand what its all about. And which they don't possess anyway.

Especially when a few sentences of plain English can provide an
adequate explanation to the enquirer.

Regards, Reg.

3586. Re: hey steveo!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 22:17:56 UTC
From: moparholic <twistedhed@wildfun.com>
Message-ID: <1132352276.521357.323310@g47g2000cwa.googlegroups.com>
Source record: 67583
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.personals.gay

Landshark wrote:
> my cock is a quarter wave of 146.52 mhz.
>
> how 'bout jerking me off and making it a top load????
>
> steveo, your ass is wonderfull........i want to fill you up
> again!!!!!!!!!

hey sharkie.......my tongue is 5/8 wave at 440.000!!!

my tongue + your cock = CB FUN !!!!

3587. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 22:24:12 UTC
From: moparholic <twistedhed@wildfun.com>
Message-ID: <1132352652.680305.19990@g47g2000cwa.googlegroups.com>
Source record: 67584
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.personals.gay

Cecil Moore wrote:
> Fred W4JLE wrote:
> > Nice article in WorldRadio December issue.
> >
> Thanks, part I was in the Oct. issue -
> Part II hopefully in Jan.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

hi Cecil,

how about an article on the sick gay shit you hams crave so
much.....like how you sick fucks select the "young ham of the year"
hehehehhe!

3588. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 22:24:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dllkbf$n1a$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67585

> As to you lamp dimming, I do not know what the wiring capacity of
your
> house was but the transmitter was being fed by the same mains drop
from
> the street as the lamp. That is, IMO, the most likely cause of the
> dimming. Just my guess.
>
> Dave WD9BDZ

==========
Dave,

The mains supply from the road was capable of 50 kilowatts without excessive volts drop. For a few years it was used for electric cookers, several 3-bar central heating radiators, etc., without problems. Far more than the TS-520 with an RF power output of 100 watts.

There may been something very peculiar with the 60-watt bedroom filament lamp which caused it to cool off when both RF plus 50Hz power currents flowed through it. I didn't try another bulb.

There may have been incorrect house wiring such that the only power point in the bedroom, used for the transmitter, was connected, by mistake, to the lighting circuit. But even then, the lighting circuit should have been capable of withstanding the load of the transmitter without much of a voltage drop. Shortly afterwards I moved the shack downstairs into the garage. At the time I never checked house wiring and later on the family sold the house and moved. The new owner was not a radio amateur.

Reg, G4FGQ.

3589. An Important Missive

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 22:48:30 UTC
From: nikool18a@yahoo.com
Message-ID: <1132354110.177741.296770@g49g2000cwa.googlegroups.com>
Source record: 67586

FRIEND,

Hi. Check out www.ChezBrandon.com ; it's awesome. As are you, Brandon is highly intelligent, knowledgeable, and good. May you have an awesome day.

A Succinct Warning: Elements of the Mossad, sated with cash from the murderous and destructive narcotics trade, are using some medical, pharmacy, and food service workers to murder men, women, and children. (A certain tasteless acid, for instance, causes cancer.)

Victor Ostrovsky's books BY WAY OF DECEPTION and THE OTHER SIDE OF DECEPTION: A ROGUE AGENT EXPOSES THE MOSSAD'S SECRET AGENDA offers elucidation, as does James Ennes, Jr.'s ASSAULT ON THE LIBERTY.

Again, may you have an awesome day, and check out www.reopen911.org and www.ChezBrandon.com
-- NICK

3590. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 23:02:55 UTC
From: jgboyles@aol.com
Message-ID: <1132354975.176805.115270@g43g2000cwa.googlegroups.com>
Source record: 67587

Reg Edwards wrote:
> "Cecil Moore" wrote
> > That's what antenna modeling programs are for.
>
> ---
> Cec, You should realise it's a waste of time pointing people towards
> computer programs which require a 6-weeks full-time training course to
> understand what its all about. And which they don't possess anyway.
>
> Especially when a few sentences of plain English can provide an
> adequate explanation to the enquirer.
> ----
> Regards, Reg.
Hi Reg., The question was certaintly not a few sentences of plain
English. If the enquirer had shortened his description to a few well
defined sentences he might have some answers by now.
The demo version of EZNEC is free, as are your programs. Niether
require 6 weeks to learn.
My advice is to model the antenna, or give more precise question(s).
Gary N4AST

3591. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 23:03:29 UTC
From: dplatt@radagast.org
Message-ID: <11nsne11sc21h65@corp.supernews.com>
Source record: 67588

In article <dllkbf$n1a$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>,
Reg Edwards <g4fgq,regp@ZZZbtinternet,com> wrote:

>There may have been incorrect house wiring such that the only power
>point in the bedroom, used for the transmitter, was connected, by
>mistake, to the lighting circuit.

That would be my guess. Here in the US, at least, it's quite common
for a single 15- or 20-ampere circuit to be used for both wall
outlets, and lighting circuits, in one or more rooms. There's nothing
in the electrical code which requires separation of these sorts of
loads... and in fact I seem to recall a clause which actually forbids
"one outlet per circuit" branches, for some reason.

> But even then, the lighting circuit
>should have been capable of withstanding the load of the transmitter
>without much of a voltage drop.

It doesn't take all that much of a drop in voltage to result in a
visible change in the brightness of an incandescent-filament light.
According to one site I've found, light output is roughly proportional
to the voltage raised to a power between 3.1 and 3.4. A 5% drop in
voltage would thus result in a decrease in light level of more than
15%, which would be pretty easy to notice.

If you were transmitting 100 watts CW key-down, I'd guess that your
transmitter was probably drawing at least 300 watts from the
mains, and perhaps rather more depending on its design.

Add a few more likely or possible elements e.g. a linear power supply
which tends to draw most of its current from the mains during the
voltage peaks (and thus causes a disproportionate amount of voltage
sag on the lines during those peaks), insufficiently-thick house
wiring in the walls, and perhaps a slightly loose or corroded
connection to one of the outlets or switches or breakers, and I can
well believe that keying a 100-watt CW transmitter could cause enough
voltage drop to result in visible dimming of the lamp bulb.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3592. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 23:13:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <hetff.16840$7h7.2183@newssvr21.news.prodigy.com>
Source record: 67589

Reg Edwards wrote:
> Cec, You should realise it's a waste of time pointing people towards
> computer programs which require a 6-weeks full-time training course to
> understand what its all about.

Reg, if I can learn ELNEC in two years, anyone can do it. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3593. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 23:22:46 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <hsnsn15aftdfujkhirp7sb9f4n6ffp73er@4ax.com>
Source record: 67591

On Fri, 18 Nov 2005 19:02:31 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I was running 100 watts from a Kenwood TS-520. The bedroom light was
>not being run from the 240-volt power wiring to the TS-520. After
>years of thinking about it, I have never found an entirely
>satisfactory explanation.

To add complexit to this puzzle, was your dinner being cold caused to some extent by the apparent drop in mains voltage at the light socket in the shack (bedroom)?

Did your light have a phase controlled dimmer (you know, to set the mood)... they not only emitted huge quantities of RF, they were also very susceptible to ingress of RF.

It wasn't by chance some other interaction like RF interference with street lighting controllers and the street likes were operating in sympathy with your keying?

Perhaps some other on-site high power appliance affected by RF. I had one of the early heaters with a fully solid state thermostat that was susceptible to RFI, and it took a while to work out why when I went into my office sometimes the heater had been running even though it appeared to be "off"... until I associated the effect with recent on-air activity.

At my coastal retreat, SSB RF was getting into the irrigation controller recently, causing water hammer in sympathy with speech.

There are limitless possibilities!

Owen
--

3594. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 23:23:36 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051118182336.822$c4@newsreader.com>
Source record: 67590
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.personals.gay

N8WWM Doug Adair <twistedhed@wildfun.com> wrote:
> Cecil Moore wrote:
> > Fred W4JLE wrote:
> > > Nice article in WorldRadio December issue.
> > >
> > Thanks, part I was in the Oct. issue -
> > Part II hopefully in Jan.
> > --
> > 73, Cecil, http://www.qsl.net/w5dxp
>
> hi Cecil,
>
> how about an article on the sick gay shit you hams crave so
> much.....like how you sick fucks select the "young ham of the year"
> hehehehhe!
>
You should go back to your court ordered shrink, n8wwm.

Plonk

3595. tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-18 23:50:25 UTC
From: Jan <janoleolsen@gmail.com>
Message-ID: <1132357825.631091.7400@z14g2000cwz.googlegroups.com>
Source record: 67592

Got a small tv in Luxembourg, no channels found (trying both SECAM and PAL). I suppose I need an external antenna. Something cheap will likely do the job as signals should be good in this area, but are there any pitfalls to avoid in order to avoid a 100% useless antenna?

3596. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 00:19:42 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <u6adnTVACbUD8uPeRVn-pA@web-ster.com>
Source record: 67593

Jan wrote:

> Got a small tv in Luxembourg, no channels found (trying both SECAM and
> PAL). I suppose I need an external antenna. Something cheap will likely
> do the job as signals should be good in this area, but are there any
> pitfalls to avoid in order to avoid a 100% useless antenna?
>
Just about anything that conducts electricity will be an improvement
over nothing.

With enough fiddling the old traditional rabbit ears make a pretty good
antenna. Back when antenna lead-ins were a pair of screws you could do
quite well with a couple of coat hangers.

Probably any shop that carries TVs will have something.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3597. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 00:21:10 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11nss0dechung5c@corp.supernews.com>
Source record: 67594

Reg;

As I said it was my guess. That's what you get for guessing. It would seem that your house has sufficient capacity to carry a 60 watt light bulb and a 100 watt transmitter.

If you ever find out what happened let the group know.

Maybe I'll meet you on the air some day.

Dave WD9BDZ

Reg Edwards wrote:

>>As to you lamp dimming, I do not know what the wiring capacity of
>
> your
>
>>house was but the transmitter was being fed by the same mains drop
>
> from
>
>>the street as the lamp. That is, IMO, the most likely cause of the
>>dimming. Just my guess.
>>
>>Dave WD9BDZ
>
>
> ====================================
> Dave,
>
> The mains supply from the road was capable of 50 kilowatts without
> excessive volts drop. For a few years it was used for electric
> cookers, several 3-bar central heating radiators, etc., without
> problems. Far more than the TS-520 with an RF power output of 100
> watts.
>
> There may been something very peculiar with the 60-watt bedroom
> filament lamp which caused it to cool off when both RF plus 50Hz power
> currents flowed through it. I didn't try another bulb.
>
> There may have been incorrect house wiring such that the only power
> point in the bedroom, used for the transmitter, was connected, by
> mistake, to the lighting circuit. But even then, the lighting circuit
> should have been capable of withstanding the load of the transmitter
> without much of a voltage drop. Shortly afterwards I moved the shack

> downstairs into the garage. At the time I never checked house wiring
> and later on the family sold the house and moved. The new owner was
> not a radio amateur.
> ----
> Reg, G4FGQ.
>
>

3598. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 00:40:49 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dllsb1$ll4$1@news.service.uci.edu>
Source record: 67595

Dave Platt wrote:
>
> It doesn't take all that much of a drop in voltage to result in a
> visible change in the brightness of an incandescent-filament light.
> According to one site I've found, light output is roughly proportional
> to the voltage raised to a power between 3.1 and 3.4. A 5% drop in
> voltage would thus result in a decrease in light level of more than
> 15%, which would be pretty easy to notice.
>
> If you were transmitting 100 watts CW key-down, I'd guess that your
> transmitter was probably drawing at least 300 watts from the
> mains, and perhaps rather more depending on its design.
>
> Add a few more likely or possible elements e.g. a linear power supply
> which tends to draw most of its current from the mains during the
> voltage peaks (and thus causes a disproportionate amount of voltage
> sag on the lines during those peaks), insufficiently-thick house
> wiring in the walls, and perhaps a slightly loose or corroded
> connection to one of the outlets or switches or breakers, and I can
> well believe that keying a 100-watt CW transmitter could cause enough
> voltage drop to result in visible dimming of the lamp bulb.

A friend of mine back in the 70's had me come over to listen to his new stereo. It was a Phase Linear system as I recall. The speaker cabinets had 9 components each in them. We put "Hall of the Mountain King" on the turntable and turned up the level to the point just before it began to distort. The power amp was pretty substantial and I noticed the lights were dimming to the music. I went outside and could see the power meter change speed in time to the music. And this was in an industrial building. That was the loudest home stereo system I ever heard. Probably the best sounding as well.

ac6xg

3599. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 01:09:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11nsupmqcscv6bf@corp.supernews.com>
Source record: 67596

I recommend that you avoid fancy and expensive antennas that sit on top of the TV and have lots of knobs and switches -- those are nearly 100% useless. Begin with what we call "rabbit ears" -- a couple of telescoping rods in a plastic base which you can adjust in length and position. That should be adequate to get some TV signals in an area where the signals are fairly strong. If you have trouble with "ghosts" (multiple images spaced horizontally), you'll need a directional antenna, outside or in the attic.

Roy Lewallen, W7EL

Jan wrote:
> Got a small tv in Luxembourg, no channels found (trying both SECAM and
> PAL). I suppose I need an external antenna. Something cheap will likely
> do the job as signals should be good in this area, but are there any
> pitfalls to avoid in order to avoid a 100% useless antenna?
>

3600. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 01:15:27 UTC
From: EasyRider <easyrider@shaw.ca>
Message-ID: <P0vff.530079$1i.301855@pd7tw2no>
Source record: 67597

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:8495-437C3E6A-308@storefull-3257.bay.webtv.net...
> Al, VE7AGW wrote:
> "I have used a similar method on the west coast of Vancouver Island with
> weighted milk jugs, instead of tying off the support line for two of the
> four support lines."
>
> I just heard Ray Price sing "For the Good Times" on KKYX, San Antonio,
> 680 KHz. The station is 200 miles from here. The sntenna is the built-in
> loopstick in the radio. I listen 24 hours, all country msic, all the
> time for more thann 32 years.
>
> Best regards, Richard Harrison, KB5WZI

I thought Charlie Pride sang that one. Use to get a station from Texas when
I lived in Sudbury Ontario, it was country too. Besides there is no other
type of music anyway, ehhhh!!!

Al, ve7agw.

3601. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 02:52:43 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <%rwff.6798$a62.4288@trnddc07>
Source record: 67598

"Jan" <janoleolsen@gmail.com> wrote in message
news:1132357825.631091.7400@z14g2000cwz.googlegroups.com...
> Got a small tv in Luxembourg, no channels found (trying both SECAM and
> PAL). I suppose I need an external antenna. Something cheap will likely
> do the job as signals should be good in this area, but are there any
> pitfalls to avoid in order to avoid a 100% useless antenna?
>
Hi Jan

My personal favorite indoor TV antenna for use in metropolitan areas is the "Apple Antenna" It is a plastic apple that is attached to the wall and located several feet from the TV set. The Apple Antenna is then connected to one of the two antenna terminals on the rear of the TV with a length of copper wire. The instructions mention that the Apple might need to be relocated for best reception.

Jerry

3602. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 04:28:44 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132374523.991396.123130@g49g2000cwa.googlegroups.com>
Source record: 67599

I guess that an old man who hasn't been into electronics very long.
But, I do possess a fair amount of common sense. I can see that
you guys can't or won't help me figure out my problem. Too many
issues here. Everyone has SOME area of excellence.
I just haven't found the right person who WILL help. Life is
filled
with people who can only see their way. Words are not as
powerful as IDEAS. Thanks for the "words", fellas.

3603. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 04:36:37 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <pZxff.127605$yS6.107699@clgrps12>
Source record: 67600

> Got a small tv in Luxembourg, no channels found (trying both SECAM and
> PAL). I suppose I need an external antenna. Something cheap will likely
> do the job as signals should be good in this area, but are there any
> pitfalls to avoid in order to avoid a 100% useless antenna?

I understand that all TV in Europe is on UHF in analog and digital formats.
Hope you are not looking on VHF.

Frank

3604. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 04:52:12 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <4leln1hc7fgskadkmckh74niqpomj6qhbd@4ax.com>
Source record: 67601
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.personals.gay

On 18 Nov 2005 14:24:12 -0800, "moparholic" <twistedhed@wildfun.com>
wrote:

>
>Cecil Moore wrote:
>> Fred W4JLE wrote:
>> > Nice article in WorldRadio December issue.
>> >
>> Thanks, part I was in the Oct. issue -
>> Part II hopefully in Jan.
>> --
>> 73, Cecil, http://www.qsl.net/w5dxp
>
>hi Cecil,
>
>how about an article on the sick gay shit you hams crave so
>much.....like how you sick fucks select the "young ham of the year"
>hehehehhe!

Now here is somebody who is making mommy and daddy proud, eh?

R

3605. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 07:41:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlmkvh$35m$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67602

"Cecil Moore" wrote
> Reg Edwards wrote:
> > Cec, You should realise it's a waste of time pointing people
towards
> > computer programs which require a 6-weeks full-time training
course to
> > understand what its all about.
>
> Reg, if I can learn ELNEC in two years, anyone can do it. :-)
==========

Cec, What is ELNEC? OK, I can guess!

Quite truthfully, if you had pointed ME towards EZNEC then I am unable even to download and un-zip it.

Acually, I do have a copy. Some years back Roy took pity on me and, without any request from me, very kindly broke the rules and airmailed me a free parcel of 3.25" floppy disks. It took me a week to print out the instruction handbook and another 2 weeks just to read it by which time I had forgotten what the problem was.

'Experts' should realise, from the manner in which questions are written, the predicament some questioners are in and make allowances instead of leaving them to flounder about in a sea of frustration and despondency.

N4AST's comments are unworthy.

Regards, Reg.

3606. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 11:23:57 UTC
From: Detlef Conradin <skyline@despammed.com>
Message-ID: <437f0b4d$0$1158$5402220f@news.sunrise.ch>
Source record: 67603

In article <pZxff.127605$yS6.107699@clgrps12>, Frank wrote:
>> Got a small tv in Luxembourg, no channels found (trying both SECAM and
>> PAL). I suppose I need an external antenna. Something cheap will likely
>> do the job as signals should be good in this area, but are there any
>> pitfalls to avoid in order to avoid a 100% useless antenna?
>
> I understand that all TV in Europe is on UHF in analog and digital formats.
> Hope you are not looking on VHF.
This is not true. There are stations on VHF I und VHF III to.

3607. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 14:37:42 UTC
From: Earl Needham <munged@3lefties.com>
Message-ID: <11nue5k3ns2f3e@corp.supernews.com>
Source record: 67604

<nm5k@wt.net> wrote in message
news:1132290760.511891.45900@f14g2000cwb.googlegroups.com...
> Well, I don't care who you are, at least once any normal person is
> going to
> > forget and drive right up to the pump without remembering to first lower
or
> > remove the antenna.
>
> That antenna is a stunted runt compared to mine.
> His is 1.5 m tall. Mine is 3.3 m tall in the driving
> mode, 4.2 m tall in the parked mode. On mine, the
> base of the antenna is on the truck cab at about
> 64 inches from ground. Even in the shorter driving
> mode, my antenna is over 16 ft tall to the tip.

Got a link to a picture of yours? I'd like to see it.

I was running a Master Mobile antenna, about 8 feet long, and the base
at 9 feet off the ground for a while. You have to know your routes pretty
well to do that! <G>

7 3
Earl
KD5XB/18Whl
--
Earl Needham
Clovis, New Mexico USA

3608. Re: Nature of "ground" beneath my house?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 15:05:37 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_437f393d@fidonet.org>
Source record: 67605

"Jim Kelley" bravely wrote to "All" (18 Nov 05 16:40:49)
--- on the heady topic of "Re: Nature of "ground" beneath my house?"

JK> From: Jim Kelley <jwkelley@nospam.edu>
JK> Xref: core-easynews rec.radio.amateur.antenna:220191

JK> Dave Platt wrote:
>
> It doesn't take all that much of a drop in voltage to result in a
> visible change in the brightness of an incandescent-filament light.
> According to one site I've found, light output is roughly proportional
> to the voltage raised to a power between 3.1 and 3.4. A 5% drop in
> voltage would thus result in a decrease in light level of more than
> 15%, which would be pretty easy to notice.
>
> If you were transmitting 100 watts CW key-down, I'd guess that your
> transmitter was probably drawing at least 300 watts from the
> mains, and perhaps rather more depending on its design.
>
> Add a few more likely or possible elements e.g. a linear power supply
> which tends to draw most of its current from the mains during the
> voltage peaks (and thus causes a disproportionate amount of voltage
> sag on the lines during those peaks), insufficiently-thick house
> wiring in the walls, and perhaps a slightly loose or corroded
> connection to one of the outlets or switches or breakers, and I can
> well believe that keying a 100-watt CW transmitter could cause enough
> voltage drop to result in visible dimming of the lamp bulb.

JK> A friend of mine back in the 70's had me come over to listen to his
JK> new stereo. It was a Phase Linear system as I recall. The speaker
JK> cabinets had 9 components each in them. We put "Hall of the Mountain
JK> King" on the turntable and turned up the level to the point just
JK> before it began to distort. The power amp was pretty substantial and
JK> I noticed the lights were dimming to the music. I went outside and
JK> could see the power meter change speed in time to the music. And this
JK> was in an industrial building. That was the loudest home stereo
JK> system I ever heard. Probably the best sounding as well.

Hmmm, acoustic suspension speakers gobble up a lot of power to get
decent bass. In the 70's a friend was into building stage columns in
his bedroom. He had big 120 dB spl drivers in ceiling high large bins
and it only took a 100 watt (4x6L6's) amp to drive them beyond ground
shaking levels. He would play Tarkus on it, Lucky Man etc. Sound was
great too for vinyl. It is amazing how good vinyl sounded back then.

A*s*i*m*o*v

... Shave the Whales!

3609. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 15:27:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <TvHff.16337$D13.9202@newssvr11.news.prodigy.com>
Source record: 67606

Paladin wrote:
> I guess that an old man who hasn't been into electronics very long.
> But, I do possess a fair amount of common sense. I can see that
> you guys can't or won't help me figure out my problem. Too many
> issues here. Everyone has SOME area of excellence.
> I just haven't found the right person who WILL help. Life is filled
> with people who can only see their way. Words are not as
> powerful as IDEAS. Thanks for the "words", fellas.

I think there are people willing to help but from your original
posting, there was not enough information for me to model your
antenna. I don't recall you even telling us the length of your
inv-V dipole. And what did you mean by "linear loaded"?
--
73, Cecil http://www.qsl.net/w5dxp

3610. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 15:39:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wGHff.16338$D13.11496@newssvr11.news.prodigy.com>
Source record: 67607

Reg Edwards wrote:
> Cec, What is ELNEC? OK, I can guess!

ELNEC was the DOS-based ancestor of EZNEC. (W7 EL NEC) It remains
the piece of software in my entire life with which I was most amazed
and delighted. For me, ELNEC rekindled the "magic" of amateur radio.

> 'Experts' should realise, from the manner in which questions are
> written, the predicament some questioners are in and make allowances
> instead of leaving them to flounder about in a sea of frustration and
> despondency.

But 'Experts' need to know the length of the antenna which, to the
best of my knowledge, wasn't given in the original posting. That's
why I recommended EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

3611. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 16:28:09 UTC
From: Landshark <s3buell@sbcglobal.net>
Message-ID: <tolff.30856$6e1.604@newssvr14.news.prodigy.com>
Source record: 67608
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.personals.gay

"Russ" <carlzomer@hotmail.com> wrote in message
news:4leln1hc7fgskadkmckh74niqpomj6qhbd@4ax.com...
> On 18 Nov 2005 14:24:12 -0800, "moparholic" <twistedhed@wildfun.com>
> wrote:
>
>>
>>Cecil Moore wrote:
>>> Fred W4JLE wrote:
>>> > Nice article in WorldRadio December issue.
>>> >
>>> Thanks, part I was in the Oct. issue -
>>> Part II hopefully in Jan.
>>> --
>>> 73, Cecil, http://www.qsl.net/w5dxp
>>
>>hi Cecil,
>>
>>how about an article on the sick gay shit you hams crave so
>>much.....like how you sick fucks select the "young ham of the year"
>>hehehehhe!
>
> Now here is somebody who is making mommy and daddy proud, eh?
>
> R

Actually, that's our resident Rec.Radio.CB troll,
Doug Adair N8WWM. Just google N8WWM and see
all the fine writings on record for him. Better yet, go
and google "keyclown" or "keyclownz" in either web
or groups search.

Landshark

--
That's funny. You managed to actually make the thug alter his outside
real world actions because of his incompetence in this ng. The internet
magnifies peoples' idiocy, as he shows.

3612. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 17:00:14 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132419614.539482.108620@z14g2000cwz.googlegroups.com>
Source record: 67609

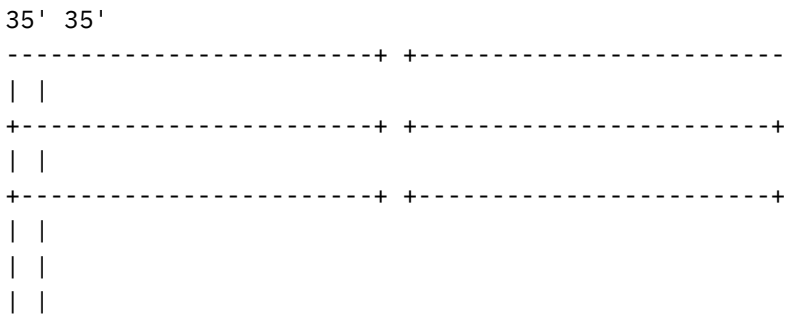
The elements are "linear-loaded" . They are folded back on
themselves.
The phsical length is 70ft.,But the electrical length is 210ft. long
!
Now, is this strange dipole a 140ft. long,OR is it 420ft. long ? ?
That's why the feedline is so much problem.....I've built
over
2 doz. antennas;this one IS tricky ! I have only 1/8 acre of land;
Hence the problems with dipole lengths,and feedline lengths.....:-)

3613. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 17:15:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <z4Jff.14794$BZ5.10148@newssvr13.news.prodigy.com>
Source record: 67610

Paladin wrote:
> The elements are "linear-loaded". They are folded back on themselves.
> The phsical length is 70ft.,But the electrical length is 210ft. long

Something like this? (fixed font)



How far apart are the adjacent wires spaced?
--
73, Cecil http://www.qsl.net/w5dxp

3614. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 17:33:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlnnl3$3un$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67611

> But 'Experts' need to know the length of the antenna which, to the
> best of my knowledge, wasn't given in the original posting. That's
> why I recommended EZNEC.
> --
> 73, Cecil
==========

Dear Cec,

So, if you had anything to say, why didn't you just ask him how long
is his antenna instead of sending him off on a wild goose chase?

I must admit you got nearer to discovering what was missing than I
did. Let's see what happens now.

Reg, G4FGQ

3615. off set dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 17:53:13 UTC
From: Paul M0EME <m0eme432@tiscali.co.uk>
Message-ID: <437f668a$1_2@mk-nntp-2.news.uk.tiscali.com>
Source record: 67612

Can anyone point me in the right direction for a design for a offset dipole.
I would prefer it for 20M
many thanks
--

Thanks and 73's de Paul M0EME
432MHz EME 4 times FO19,
FT847,
MGF1302,
100 Watts at feed,
Spectran.
Initials 432MHz #2 CW #4 JT65

http://myweb.tiscali.co.uk/m0eme

3616. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 17:56:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1HJff.18002$7h7.3111@newssvr21.news.prodigy.com>
Source record: 67613

Reg Edwards wrote:
> So, if you had anything to say, why didn't you just ask him how long
> is his antenna instead of sending him off on a wild goose chase?

Reg, a standing recommendation of mine is to download the free
demo version of EZNEC and have fun learning how to use it.
Any amateur radio operator who succeeds in doing so will be
rewarded for the effort expended (and was also a source of
extreme pleasure in my case). ELNEC/EZNEC and the Smith
Chart (Microsmith) are the most useful tools I have ever
encountered for comprehension of antenna systems. (Not
considering reference books as "tools".)
--
73, Cecil http://www.qsl.net/w5dxp

3617. Re: support vertical with PVC?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-19 22:01:31 UTC
From: xenon <nobel_gas@periodic_table.com>
Message-ID: <437FA0B9.F8DB3C78@periodic_table.com>
Source record: 67614

Hi,

Just prime and paint the pvc pipe with good exterior house latex paint.

Or use sched 80 or 40 PVC electrical grey conduit, no paint needed.

xenon

3618. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 02:25:31 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11nvnksq6akiqc9@corp.supernews.com>
Source record: 67615

Fred W4JLE wrote:
> Nice article in WorldRadio December issue.
>
>
I live in the "refugee" area of the Mississippi gulf coast (Diamondhead)
and don't get all my magazines yet. What did Cecil wrote about (cajun)

Butch KF5DE

3619. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 03:02:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <mHRff.18103$7h7.13802@newssvr21.news.prodigy.com>
Source record: 67616

Butch Magee wrote:
> I live in the "refugee" area of the Mississippi gulf coast (Diamondhead)
> and don't get all my magazines yet. What did Cecil wrote about (cajun)

Dec. is Part II of a three part series titled: "An Energy Analysis
at an Impedance Discontinuity in an RF Transmission Line". Part 1
was in the Oct. issue. Here's an email I got today:

"Oh Boy! What a captivating article re energy analysis at an impedance
discontinuity. Lots of good, fundamental, insight. One of the best
articles that ever appeared in a ham radio publication."

OTOH, somebody else called it "gobbledygook". :-)
--
73, Cecil http://www.qsl.net/w5dxp

3620. Re: off set dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 03:10:01 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <a16553-for.ln1@p400bob.personal.cox.net>
Source record: 67619

Hi Paul

This any use?

http://www.cebik.com/gup/gup9.html

Cheers Bob VK2YQA

Paul M0EME wrote:
> Can anyone point me in the right direction for a design for a offset dipole.
> I would prefer it for 20M
> many thanks

3621. Re: off set dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 03:26:27 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <e72dnY6GXLx5ceLeRVn-vw@comcast.com>
Source record: 67617

"Paul M0EME" <m0eme432@tiscali.co.uk> wrote in message
news:437f668a$1_2@mk-nntp-2.news.uk.tiscali.com...
>
> Can anyone point me in the right direction for a design for a offset
> dipole. I would prefer it for 20M
> many thanks
>
> Thanks and 73's de Paul M0EME
> 432MHz EME 4 times FO19,
> FT847,
> MGF1302,
> 100 Watts at feed,
> Spectran.
> Initials 432MHz #2 CW #4 JT65
>
> http://myweb.tiscali.co.uk/m0eme
>

Radio Works makes the Carolina 620 ... that may be what you are looking for
http://radioworks.com/ccw620.html

Moxon
http://www.qsl.net/gvarc/fd2004/fd2004.html

w9gb

3622. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 03:53:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <ab772$437ff336$97d56a33$22988@ALLTEL.NET>
Source record: 67618

His article covers an analysis of energy on a transmission line that
contains impedance discontinuity.

He has covered the subject on this news group and the article is a
compilation of those thoughts.

Enjoyable reading sans the QRM one finds on a newgroup.

"Butch Magee" <lynyrd@cableone.net> wrote in message
news:11nvnksq6akiqc9@corp.supernews.com...
> Fred W4JLE wrote:
> > Nice article in WorldRadio December issue.
> >
> >
> I live in the "refugee" area of the Mississippi gulf coast (Diamondhead)
> and don't get all my magazines yet. What did Cecil wrote about (cajun)
>
> Butch KF5DE

3623. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 04:26:36 UTC
From: richardharrison@webtv.net
Message-ID: <19147-437FFAFC-563@storefull-3256.bay.webtv.net>
Source record: 67620

Al, VE7AGW wrote:
"I thought Charlie Pride sang that one."

I wouldn`t be surprised. Charlie is a great country singer. When I hear his name, "Kiss a Devil Good Morning" pops into mind. Ray Price mostly owns "For the Good Times." Ray still lives in Texas, rides motorcycles, and has taken up comedy, I suppose, to enlarge his act.

Since Clear Channel Communications, Infinity Broadcasting, etc. bought most of the non-network-owned broadcast outlets, music stations have disappeared. Clear Channel changed the music programming of the last sizeable AM music outlet in Houston to sports programming last year. That was when I found the 680 KHz signal from San Antonio was usually good here 24-hours. I think they run 50-KW nondirectional day time and 10-KW nighttime, pointed away from KNBC in San Francisco at nignt. KNBC is 50-KW, 680 KHz, non-directional day and night.

At night on 680 KHz in Houston, there is somtimes interference from Cuba. The map shows 4 Cuban stations sharing 680 KHz, so there are tales about "El Commandante Fidel" breaking into my night music from San Antonio at times. There are several Mexican stations too, but they seem to try not to interfere. WAPA in San Juan, Puerto Rico is shown as 10 KW non-directional night and day on the map, but I have not noticed interference from them, so I wonder if they are really still there.

For country music in most of North America, a good bet might be "The Grand Ole Opry Station", WSM in Nashville, Tennessee. It is 650 KHz, 50-KW, non-directional, night and day. When I was a kid, this station adveritised itself as "The National Life and Accidennt Station" but already carried "The Opry" The insurance business has shifted about like the broadcasting business. Both are regulated. Insurance by the state and broadcasting by the feds.

My Broadcast Allocation Map Book doesn`t indicate programming. It was only in the earliest days that the Commerce Department ruled that all stations on a certain frequency must only broadcast music. Sometimes the first idea is the best.

Best regards, Richard Harrison, KB5WZI

3624. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 04:41:15 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <5ea34$437ffe6d$97d56a33$1046@ALLTEL.NET>
Source record: 67621

Can't believe you left out WCKY Cincinnati 1 Ohio :>)

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:19147-437FFAFC-563@storefull-3256.bay.webtv.net...

> Grand Ole Opry Station", WSM in Nashville, Tennessee. It is 650 KHz,
> 50-KW, non-directional, night and day. When I was a kid, this station
> adveritised itself as "The National Life and Accidennt Station" but
> already carried "The Opry" The insurance business has shifted about like
> the broadcasting business. Both are regulated. Insurance by the state
> and broadcasting by the feds.
>
> My Broadcast Allocation Map Book doesn`t indicate programming. It was
> only in the earliest days that the Commerce Department ruled that all
> stations on a certain frequency must only broadcast music. Sometimes the
> first idea is the best.
>
> Best regards, Richard Harrison, KB5WZI
>

3625. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 04:48:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9eTff.18148$7h7.14033@newssvr21.news.prodigy.com>
Source record: 67622

Richard Harrison wrote:
> Al, VE7AGW wrote:
> "I thought Charlie Pride sang that one."
>
> I wouldn`t be surprised. Charlie is a great country singer. When I hear
> his name, "Kiss a Devil Good Morning" pops into mind.

I do believe it is, "Kiss an Angel Good Morning" and "love
her like the devil when you get back home".
--
73, Cecil http://www.qsl.net/w5dxp

3626. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 05:34:41 UTC
From: EasyRider <easyrider@shaw.ca>
Message-ID: <RVTff.545570$tl2.45082@pd7tw3no>
Source record: 67623

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:19147-437FFAFC-563@storefull-3256.bay.webtv.net...
> Al, VE7AGW wrote:
> "I thought Charlie Pride sang that one."
>
> I wouldn`t be surprised. Charlie is a great country singer. When I hear
> his name, "Kiss a Devil Good Morning" pops into mind. Ray Price mostly
> owns "For the Good Times." Ray still lives in Texas, rides motorcycles,
> and has taken up comedy, I suppose, to enlarge his act.

The good old days as we say, back when the radio stations played non-stop music and the all the girls wore skirts and us guys wore jean and white T-shirt. It's fun but but I remember when the we use to get these radio maps of the world with all the stations listed on them. And as you say they listed the power day/night and most of them only played music no advertising at all. I use to listen to this rock and roll station out of Buffalo called WKBW 960 khz and all they played was rock and roll. American Band Stand with Dave Clark, I suppose this is dating me know. On my last trip back that way I heard the station ID on the FM dial instead of AM and they still played the old rock and roll from the fifty and sixies.
Talking about cournty and western station in Texas, well I use run truck loads of red cedar to this place in Grande Pairie Texas, right between Fort Worth and Dallis and I would listen to this am station from Amarillo. Could pick it up just outside of Dallas while running up US 287/87 to Denver then shortly outside of Denver I would loose it. The loneliest section of road for radio station is Montana you just don't pick up much at all even on Am. And Fm is usless in most places except around big cities.
The last Freightliner I had I put the satelite radio in it and had radio everywhere then and lots to choose from too. Even had my Icom IC-706 in it as well.

3627. Re: Congats Cecil W5DXP

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 08:20:19 UTC
From: Keyclowns are limpwristed <keyklownzrnutjobs@yahoo.com>
Message-ID: <1132474819.786438.28830@f14g2000cwb.googlegroups.com>
Source record: 67624
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy

Landshark wrote:
> "Russ" <carlzomer@hotmail.com> wrote in message
> news:4leln1hc7fgskadkmckh74niqpomj6qhbd@4ax.com...
> > On 18 Nov 2005 14:24:12 -0800, "moparholic" <twistedhed@wildfun.com>
> > wrote:
> >
> >>
> >> >>Cecil Moore wrote:
> >> >>> Fred W4JLE wrote:
> >> >>> > Nice article in WorldRadio December issue.
> >> >>> >
> >> >>> Thanks, part I was in the Oct. issue -
> >> >>> Part II hopefully in Jan.
> >> >>> --
> >> >>> 73, Cecil, http://www.qsl.net/w5dxp
> >> >>
> >> >>hi Cecil,
> >> >>
> >> >>how about an article on the sick gay shit you hams crave so
> >> >>much.....like how you sick fucks select the "young ham of the year"
> >> >>hehehehhe!
> >> >
> >> > Now here is somebody who is making mommy and daddy proud, eh?
> >> >
> >> > R
> >>
> >> Actually, that's our resident Rec.Radio.CB troll,
> >> Doug Adair N8WWM. Just google N8WWM and see
> >> all the fine writings on record for him. Better yet, go
> >> and google "keyclown" or "keyclownz" in either web
> >> or groups search.
> >>
> >> Landshark
Wrong, assmunch. But who cares? n8 is the default blame for all you
buttwipes who can't find out who it really is. Of course it does not
matter, there's nothing you can do about whoever it is even if you find
out.
Markie, you are on the AKC Christmas album, soon to be released. Try
guessing what song's music was used to make the one about you. Your
wife mopey has a song too.

3628. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 08:50:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlpdd6$o3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67526

Cec, as an aside, when people are conversing with each other, 50 percent of the information passing to and fro is conveyed by body language.

Body language is completely lacking when conversing via newsgroups. This can very easily lead to misunderstanding and futile argument.

People should check and recheck what they have said before posting. The existence of certain types of spelling mistakes and obvious grammatical errors are a guide to the care and attention which has been paid by the sender to saying what he intended to say.

I admit, very careless senders do not deserve any replies. Not because absence of reply is an unsaid reprimand but because they have indicated their inability to understand a reply if they get one.

Then there are trollers!

This message is primarily intended for people seeking solutions to problems.

I have had only two glasses of white wine. (South African).

And I don't know how to use a spell-checker even if I had one.

Yours, Reg, G4FGQ

3629. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 08:50:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlpdd6$o3$2@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67625

"Cecil Moore" wrote

> Reg, a standing recommendation of mine is to download the free
> demo version of EZNEC and have fun learning how to use it.
> Any amateur radio operator who succeeds in doing so will be
> rewarded for the effort expended (and was also a source of
> extreme pleasure in my case). ELNEC/EZNEC and the Smith
> Chart (Microsmith) are the most useful tools I have ever
> encountered for comprehension of antenna systems. (Not
> considering reference books as "tools".)
> --
==========
Dear Cec,

In the present context, in the absence of body language, your praise of EZNEC can perhaps be misconstrued as my criticism of that erstwhile computer program.

On the contrary, I quite agree with your comments.

Regarding the Smith Chart, I have myself never found it to be of any use. In fact I don't know how to use it. I am aware of its long-standing existence, and what it is purported to achieve, from this newsgroup and from the one or two ancient 'bibles' which I seldom refer to.

But the absence of a Smith Chart may be due to some vague shortcoming in my education for which I have no responsibility. So I have never felt myself to be handicapped in any way. Indeed, I have gained from this and other websites the impression that I am considered to be a transmission line 'expert'. But I claim only to be a well-educated, useful engineer who also happens, in retirement, to be a radio amateur with the ability to express myself in plain written English.

To continue with my earlier message, I have just finished a third glass of white, South African wine.

But enough about me. What are you doing about Bush?

Reg.

3630. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 09:39:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlpg91$m0f$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67527

And I have never been criticised for begining a sentence with "and".

Reg.

3631. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 13:51:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Db%ff.18245$7h7.9842@newssvr21.news.prodigy.com>
Source record: 67528

Reg Edwards wrote:
> But enough about me. What are you doing about Bush?

I don't have to do anything about Bush, Reg. He is
fast running out of feet in which to shoot himself.
--
73, Cecil http://www.qsl.net/w5dxp

3632. will rabit ear antennae increase signal pick-up for TV

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 14:46:26 UTC
From: Collon <ohright@aol.com.com>
Message-ID: <TY%ff.1387$KP1.8@bignews5.bellsouth.net>
Source record: 67529

I just bought the battery operated TV below. I cannot get any of the stations, probably because I am 30 miles away from them. The thing has a built in antenna, but it also has a place where I can connect a more powerful antenna. Will a rabit ear antenna increase my chances of picking up a tv signal that the built in antenna will not?

http://www.dealtime.com/xPC-GPX_5_Black_and_White_TV_CD_Player_Radio_Combo

3633. Re: will rabit ear antennae increase signal pick-up for TV

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 15:37:27 UTC
From: Dave <noone@nowhere.com>
Message-ID: <67qdnXQRgcjZBR3enZ2dnUVZ_t2dnZ2d@crocker.com>
Source record: 67530

"Collon" <ohright@aol.com.com> wrote in message
news:TY%ff.1387$KP1.8@bignews5.bellsouth.net...
>I just bought the battery operated TV below. I cannot get any of the
>stations, probably because I am 30 miles away from them. The thing has a
>built in antenna, but it also has a place where I can connect a more
>powerful antenna. Will a rabit ear antenna increase my chances of picking
>up a tv signal that the built in antenna will not?
>
> http://www.dealtime.com/xPC-GPX_5_Black_and_White_TV_CD_Player_Radio_Combo
>

it can't hurt. and it would give you a way to get the antenna in a better
position in the room than wherever you are sitting with your magnifier to
watch that little screen.

3634. Re: will rabit ear antennae increase signal pick-up for TV

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 15:46:24 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <NS0gf.8372$qw.4291@fed1read07>
Source record: 67531

Try a 300 ohm twin-lead homemade antenna.
Will beat the rabbit ears and kick the rabbit's butt (;-)

See URL:
http://www.wfu.edu/~matthews/misc/dipole.html

--
CL -- I doubt, therefore I might be !

"Dave" <noone@nowhere.com> wrote in message
news:67qdnXQRgcjZBR3enZ2dnUVZ_t2dnZ2d@crocker.com...
>
> "Collon" <ohright@aol.com.com> wrote in message
> news:TY%ff.1387$KP1.8@bignews5.bellsouth.net...
>>I just bought the battery operated TV below. I cannot get any of the
>>stations, probably because I am 30 miles away from them. The thing has a
>>built in antenna, but it also has a place where I can connect a more
>>powerful antenna. Will a rabit ear antenna increase my chances of picking
>>up a tv signal that the built in antenna will not?
>>
>> http://www.dealtime.com/xPC-GPX_5_Black_and_White_TV_CD_Player_Radio_Combo
>>
>
> it can't hurt. and it would give you a way to get the antenna in a better
> position in the room than wherever you are sitting with your magnifier to
> watch that little screen.
>

3635. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 15:57:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <qqWdnTtZOLpKAR3eRVn-ow@comcast.com>
Source record: 67532

"Jan" <janoleolsen@gmail.com> wrote in message
news:1132357825.631091.7400@z14g2000cwz.googlegroups.com...
> Got a small tv in Luxembourg, no channels found (trying both SECAM and
> PAL). I suppose I need an external antenna. Something cheap will likely
> do the job as signals should be good in this area, but are there any
> pitfalls to avoid in order to avoid a 100% useless antenna?
>
If you live within about 30 km from a station, you should be able to get some kind of a picture with nothing more than a 1 meter piece of wire connected to the antenna terminal. Make sure the TV is set for antenna, not cable. Don't k now the European frequency plan, but here in the US, TV channels 14 and above are offset by 1/3 of a channel from cable channels in the same frequency range.

Tam

3636. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 16:04:49 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132502689.619992.149510@g47g2000cwa.googlegroups.com>
Source record: 67533

The wires are close. The builder used rotor feed line. 3 equal
lengths of wires 70ft. long
THAT make one element. there is one on the oppisite side.

3637. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 16:14:27 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132503266.988762.12120@o13g2000cwo.googlegroups.com>
Source record: 67534

I believe that REG and CECIL have lost the idea of what I asked in
the begining.
I'm NOT a dog going around in a circle chasing his tail ! I want
some FACTS.
NOT endless chatter, about the worlds demise!
I have a bought antenna made of wire. Yes, I should
have built it
myself,BUT I didn't. I need to know how to fix "said" antenna, and
intergrate
it into my small land. 1/8 of an acre. ON4UN's book on "low band
dxing"
states that there aren't any PROGRAMS for linear-loaded ant.'s out
there.
oh well, I guess that
I'll just haffta go back to 2m !

3638. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 17:46:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <OD2gf.23203$dO2.18717@newssvr29.news.prodigy.net>
Source record: 67535

Paladin wrote:
> ON4UN's book on "low band dxing" states that there aren't any
> PROGRAMS for linear-loaded ant.'s out there.

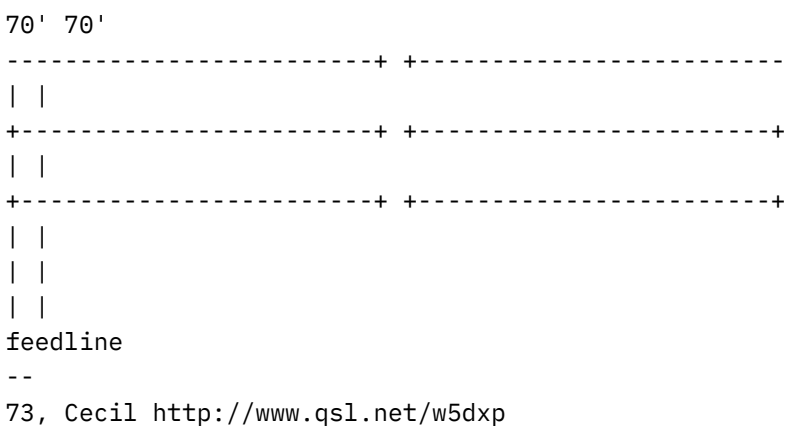
That may be true but if we space the parallel conductors
a foot apart, take a look with EZNEC, and it's a dog of
an antenna, we can draw certain conclusions about the
closer spacing of your antenna.
--
73, Cecil http://www.qsl.net/w5dxp

3639. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 17:48:56 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cG2gf.23204$dO2.5706@newssvr29.news.prodigy.net>
Source record: 67536

Paladin wrote:
> The wires are close. The builder used rotor feed line. 3 equal
> lengths of wires 70ft. long
> THAT make one element. there is one on the oppisite side.

So like this?



--
73, Cecil http://www.qsl.net/w5dxp

3640. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 18:50:18 UTC
From: richardharrison@webtv.net
Message-ID: <22448-4380C56A-728@storefull-3254.bay.webtv.net>
Source record: 67537

Paladin wrote:
"I just haven`t found the right person who will help."

Help, it seems, is the answer Paladin wants to hear. When you want to put 8 pounds of crap in a 4-pound bag, life is often that way. You quickly run out of good advice.

When a respondent says there`s no computer program to tell you how to linearly-load an antenna wire, you are invited to prove him wrong. The ARRL Antenna Book says:
"Since the dimensions and spacing of linear-loading devices vary greatly from one antenna to another, the best way to employ this technique is to try a length of conductor 10% to 20% longer than the difference between the shortened antenna and the full-size dimension for the linear-loading device. Then use te "cut-anhd-try" method, varying both the spacing and length of the loading device to optimize the match."

You might write a program for that.

Best regards, Richard Harrison, KB5WZI

3641. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 19:58:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tjk1o19et02ac7udui0igheqalgi6j2rab@4ax.com>
Source record: 67538

On 16 Nov 2005 08:19:33 -0800, "Paladin" <kb1ghh@hotmail.com> wrote:

> Hi Group,
> Recently,I put up a linear-loaded dipole for
>160-10m. It's ladderline,4/1 balun,
> to coax,to good brand auto-tuner. It's supposed to work with 100ft.
>of ladderline,BUT....

Hi OM,

It's "supposed to work" is the key phrase here - according to who?
Perhaps this is your greatest difficulty in finding help for a design
that won't be helped.

> It wouldn't cover the lower portions of 160. To get this antenna to
>work on 160, I had to cut
> off 20ft. of ladderline, AND also use a 50ft. piece of coax! I tried
>using only 20ft. of coax
> because that's all I need to get to my tuner,but it didn't work! ! !

Your statement here contains a great degree of success in it. It
would appear that you have higher expectations than could be
reasonably expected.

>Why are the signals that I rercieve on the higher
>bands,(160-10m) usually SO LOW in strength ? Ex: On 160 or 80,the antennas s-meter
>usually reads over s-9 at night,o.k. Now, the same antenna on 10m or 20m during
>the day are reading very low; mostly around 3's and 4's.

The linear loading that you have described in further correspondence
is not particularly remarkable. It follows the aphorism to put more
wire higher into the air, but in reality, that more wire also needs
more volume (surface area, what-have-you). The triple-backed rotor
cable has been trotted out here before, and has never been shown to be
anything but a good match - perhaps. You can load a resistor to the
same effect and you may note similar performance issues in that
correlation.

If you want to keep more wire in the air, build a fantail dipole or a
cage dipole and use more than three wires (six to a dozen instead)
with a truly large, effective diameter at the end.

73's
Richard Clark, KB7QHC

3642. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 19:58:48 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <Pp6dnUqK-6MOSB3eRVn-qA@comcast.com>
Source record: 67539

Cecil Moore wrote:
> Paladin wrote:
>
>> The wires are close. The builder used rotor feed line. 3 equal
>> lengths of wires 70ft. long
>> THAT make one element. there is one on the oppisite side.
>
>
> So like this?
>
> 70' 70'
> -------------------------+ +-------------------------
> | |
> +------------------------+ +------------------------+
> | |
> +------------------------+ +------------------------+
> | |
> | |
> | |
> feedline

Hi Cecil, that's what I understand. To a first approximation, on 160 meters, the radiation from the two segments furthest from the feed point should cancel. That would leave the effective antenna as a shortened dipole with a length of 55 degrees per leg [two 80 foot long segments per side]. This should yield a radiation resistance of somewhere around 10 to 15 ohms with a significant capacitive reactance of between 500 to 1000 ohms.

His 100 foot long feed line is only 69 degrees long. I believe this short a matching section, i.e. "stub", may be insufficient to achieve a '50 ohm' match.

I would expect the antenna gain to be -2 to -3 dBd.

Comments??

3643. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 20:18:00 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <YR4gf.120103$S4.98713@edtnps84>
Source record: 67540

>> Got a small tv in Luxembourg, no channels found (trying both SECAM and
>> PAL). I suppose I need an external antenna. Something cheap will likely
>> do the job as signals should be good in this area, but are there any
>> pitfalls to avoid in order to avoid a 100% useless antenna?
>>
> If you live within about 30 km from a station, you should be able to get
> some kind of a picture with nothing more than a 1 meter piece of wire
> connected to the antenna terminal. Make sure the TV is set for antenna,
> not cable. Don't k now the European frequency plan, but here in the US, TV
> channels 14 and above are offset by 1/3 of a channel from cable channels
> in the same frequency range.
>
> Tam

Found the following on the web. Note the channel frequencies are different
from North America. No mention of VHF for TV broadcasting in the UK.

http://www.digitaltelevision.gov.uk/pdf_documents/publications/DTT_Reception_Impact_Analysis_Ver_1.0.pdf

Frank

3644. Supernova versus gpm-1500

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 22:23:02 UTC
From: Sean <sean@goedehallo.com>
Message-ID: <11o1tqa5it6qdab@corp.supernews.com>
Source record: 67541
Cross-posted to: uk.radio.amateur,alt.engineering.electrical,rec.radio.amateur.antenna

anyone experience?

thank you Sean

3645. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 22:23:12 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <98c9a$4380f751$97d56a33$3576@ALLTEL.NET>
Source record: 67542

Probably because it covered DIGITAL TV. They have a few analog channels. The last time I was there they had BBC1 and BBC2 on VHF. What I found interesting is that a lot of Europe uses vertical polarization rather than horizontal like we do. Every time I go over there it takes me a few days to get use to the 50 Cycle refresh rate which I perceive as flicker. But at least the "colour" is the same from all cameras.

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:YR4gf.120103$S4.98713@edtnps84...
> Found the following on the web. Note the channel frequencies are
different
> from North America. No mention of VHF for TV broadcasting in the UK.
>
>
http://www.digitaltelevision.gov.uk/pdf_documents/publications/DTT_Reception_Impact_Analysis_Ver_1.0.pdf
>
> Frank
>
>

3646. Add 12M and 17M to Huslter 4 5 or 6 BTV's

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 22:51:28 UTC
From: Charlie <charlie@play.com>
Message-ID: <11o1vfs1bssp6fc@news.supernews.com>
Source record: 67543
Cross-posted to: alt.ham-radio.hf,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment

Total cost about $10. Takes about an hour total time. No permanent modifications to original antenna. Web page includes complete fabrication and assembly instructions. Also included is final test data showing swr at <1.3:1 across all 7 bands of a modified Hustler 5-BTV. Some retuning of 20M is usually needed after 12M and 17M are installed and tuned. Mod consists of a 12M 1/4 wave radiator and a similar 17M 1/4 wave radiator installed along side antenna held with 4 Plexiglas spreaders which are home brewed. Takes legal limit.....looks good...works good too!

Tired of "contesters" jamming up the bands nearly every weekend? Find refuge on 12M and 17M !!!

1. http://www.ad5th.com/5-BTV-WARC.html

--

Charlie - AD5TH
www.ad5th.com

3647. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 23:08:28 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Ml7gf.14944$BZ5.11614@newssvr13.news.prodigy.com>
Source record: 67544

If you are trying to use this in the North American, South American
markets, no wonder it doesnt work! North american uses NTSC standard,
while PAL/and SECAM are European standards! Think there is also another
standard for Austrailia/New Zeland, tho they might also use PAL.
(and this is before you consider the tv station frequencies difference)!
Jim NN7K

Frank wrote:
>>>Got a small tv in Luxembourg, no channels found (trying both SECAM and
>>>PAL). I suppose I need an external antenna. Something cheap will likely
>>>do the job as signals should be good in this area, but are there any
>>>pitfalls to avoid in order to avoid a 100% useless antenna?
>>>
>>
>>If you live within about 30 km from a station, you should be able to get
>>some kind of a picture with nothing more than a 1 meter piece of wire
>>connected to the antenna terminal. Make sure the TV is set for antenna,
>>not cable. Don't k now the European frequency plan, but here in the US, TV
>>channels 14 and above are offset by 1/3 of a channel from cable channels
>>in the same frequency range.
>>
>>Tam
>
>
> Found the following on the web. Note the channel frequencies are different
> from North America. No mention of VHF for TV broadcasting in the UK.
>
> http://www.digitaltelevision.gov.uk/pdf_documents/publications/DTT_Reception_Impact_Anal
ysis_Ver_1.0.pdf
>
> Frank
>
>

3648. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-20 23:50:39 UTC
From: richardharrison@webtv.net
Message-ID: <15195-43810BCF-912@storefull-3252.bay.webtv.net>
Source record: 67545

Fred, W4JLE wropte:
"Can`t believe you left out WCKY Cincinnati 1 Ohio."

WCKY 1530 KHz should not be omitted from any list of great radio stations accessible to millions of listeners. I made no list. I picked only one station I thought might best typify country music and be widely propagated.

WCKY is 50 KW nondirectional daytime but uses a n-s directional pattern which places a sharp null toward KFBK Sacremento, California. KFBK also uses 50 KW but in a north-south directional pattern up and down the west coast of the U.S.A.. This tends to protect WCKY, too.

WSM always has a 50 KW nondirectional pattern. That is now the maximum power allowed AM broadcasting in the U.S.A. When I was a kid, another Cincinnati station, WLW was called the "Nation`s Station" and broadcast with 500,000 watts. It really could be heard almost everywhere.

WSM is exceptional due to programming. It originates the "Grand Ole Opry". A network of more than 100 stations carry the program in several countries. It also feeds the Armed Forces Radiom Service.

WSM at 650 KHz is toward the low-frequency end of the AM broadcast band and that tends to propagate day or night better than the high end of the band.

Dolly Parton is a regular on the Opry and that trumps all other reasons for picking WSM as a favorite.

Best regards, Richard harrison, KB5WZI

3649. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 00:34:08 UTC
From: CWB <cboone@nospam.earthlink.net>
Message-ID: <4C8gf.4581$Au1.2920@tornado.texas.rr.com>
Source record: 67546

"Richard Fry" <rfry@adams.net> wrote in message
news:436fd96a_3@newsfeed.slurp.net...
> "Dave Pitzer" wrote
>> ... Is there any place I can find polar graphs of commercial
>> broadcast station's antenna patterns?
>
> ___________________
>
> Dave,
>
> Here http://www.radio-locator.com/ is a link to a website with calculated
> coverage areas/contours for US AM broadcast stations. The contours are
> based on their licensed radiation patterns (directional or not), AND
> ground conductivities for the geographic regions concerned.
>
> The polar radiation patterns of these stations most probably don't look
> much like these plots, because of the heavy influence that ground
> conductivity has on received field strength along the various azimuth
> bearings.
>
> Even the real coverage contours of AM broadcast stations using omni
> antennas usually are anything but omni, due to the effects of varying
> ground conductivities around their various azimuth sectors and ranges.
>
> Have fun.

Just a FYI...the contour maps at Radio-Locator.com are WRONG....the LOCAL on
FM maps is actually the distant or Service Contour (1mv or 60dbu
level)..LOCAL is defined as City Grade or 70dbu or 3.16mV level...which they
do not show..On AM, they show lower levels on the map as well...If you want
to really know what the signal level should be, draw another circle or line
inside the LOCAL one they show...about the same distance between the LOCAL
and Distant they show...Your line drawn will be local, their local becomes
Distant and their Distant becomes Finge...
Their Fringe is now DX :)

Chris
WB5ITT

3650. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 00:43:04 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <sK8gf.120911$S4.99906@edtnps84>
Source record: 67547

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:98c9a$4380f751$97d56a33$3576@ALLTEL.NET...
> Probably because it covered DIGITAL TV. They have a few analog channels.
> The
> last time I was there they had BBC1 and BBC2 on VHF. What I found
> interesting is that a lot of Europe uses vertical polarization rather than
> horizontal like we do. Every time I go over there it takes me a few days
> to
> get use to the 50 Cycle refresh rate which I perceive as flicker. But at
> least the "colour" is the same from all cameras.

Fred, If you notice the document
(http://www.digitaltelevision.gov.uk/pdf_documents/publications/DTT_Reception_Impact_Analysis_Ver_1.0.pdf)
does refer to analog transmission in the UHF band.

According to http://en.wikipedia.org/wiki/VHF:
"British television originally used VHF bands I and III. Television on VHF was in black and white with 405-line display. British colour television was broadcast on UHF (channels 21-69), beginning in the late 1960s. TV from then on was broadcast on both VHF and UHF, with the exception of BBC2 (which had always broadcast solely on UHF). The last British VHF TV transmitters closed down on January 3, 1985. VHF band III is now used in the UK for digital audio broadcasting. Unusually, the UK has an amateur radio allocation at 4 metres, 70-70.5 MHz."

Possibly somebody from the UK could verify if all the VHF stations have in fact closed down. It is true that they use vertical polarization. The refresh rate is 25 Hz, interlaced, which is why the flicker is so noticeable. NTSC color drift was cured in the late 70s. PAL was a genuine attempt to fix the color drift problem -- with some loss of color resolution. SECAM was invented by the French to be different to everybody else.

Regards,

Frank

3651. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 01:05:39 UTC
From: jgboyles@aol.com
Message-ID: <1132535139.707540.28330@g47g2000cwa.googlegroups.com>
Source record: 67548

> N4AST's comments are unworthy.> ----
> Regards, Reg.

HI Reg, Unworthy of what? That's like saying your programs smell, but not what they smell like-:). I for one an grateful and have used your programs, and EZNEC. I consider them both an asset to to my knowledge of antennas.
Gary N4AST

3652. Re: tv antenna, any simple standards that work?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 02:18:02 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <u7OdnSpAbZPNsxzenZ2dnUVZ_vidnZ2d@comcast.com>
Source record: 67549

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:Ml7gf.14944$BZ5.11614@newssvr13.news.prodigy.com...
> If you are trying to use this in the North American, South American
> markets, no wonder it doesnt work! North american uses NTSC standard,
> while PAL/and SECAM are European standards! Think there is also another
> standard for Austrailia/New Zeland, tho they might also use PAL.
> (and this is before you consider the tv station frequencies difference)!
> Jim NN7K
>
I wonder if you are right. Looked at the original posting, and noticed he
did not exactly say he *lived* in Luxenburg. BTW, some of these countries
use 60 Hz PAL, which would not work with a set bought in EU either. RF
frequencies are guaranteed not to line up, because the channel spacing is
different.

Tam/WB2TT

3653. Re: Add 12M and 17M to Huslter 4 5 or 6 BTV's

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 05:23:21 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <EsmdnWhFlvNWxBzenZ2dnUVZ_sKdnZ2d@comcast.com>
Source record: 67550

"Charlie" <charlie@play.com> wrote in message
news:11o1vfs1bssp6fc@news.supernews.com...
> Total cost about $10. Takes about an hour total time. No permanent
> modifications to original antenna. Web page includes complete fabrication
> and assembly instructions. Also included is final test data showing swr at
> <1.3:1 across all 7 bands of a modified Hustler 5-BTV. Some retuning of
> 20M is usually needed after 12M and 17M are installed and tuned. Mod
> consists of a 12M 1/4 wave radiator and a similar 17M 1/4 wave radiator
> installed along side antenna held with 4 Plexiglas spreaders which are
> home brewed. Takes legal limit.....looks good...works good too!
>
> Tired of "contesters" jamming up the bands nearly every weekend? Find
> refuge on 12M and 17M !!!
>
> http://www.ad5th.com/5-BTV-WARC.html
>
> Charlie - AD5TH
> www.ad5th.com
>
Yes, nice photos. 17 meters is a great band, not just for refuge from
contesters.

Your 1/4 wave addition reminds me of the Cushcraft design for the R8
antenna.
The R8 uses 4 stubs for 15, 12, 10 and 6 meters, which leaves only 2 traps
for 17/20 and 30 meters. A builder could probably even order the 2 hole
insulator (Part # 205097 - R8 antenna) for this project.
http://www.cushcraft.com/support/pdf/R8.pdf

w9gb

3654. 1.2 GHZ collinear array

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 05:52:49 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <shdgf.12584$ih5.1995@dukeread11>
Source record: 67551

I want to build a 1.2 Ghz antenna for this tiny wireless camera receiver I have. The antenna on it uses an F connector so I am guessing it is a 75 ohm antenna. I have seen several web pages with a collinear design using 50 ohm coax cable. If I use some 75 ohm cable TV coax to make the antenna do I need to do anything else to match the antenna to the 75 ohms of the RX? Also does anyone know what eh velocity factor for the coax the cable company uses is?

--
Chris W
KE5GIX

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Get the gifts you want &
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3655. Re: 1.2 GHZ collinear array

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 11:44:34 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <Y_-cnfaw4OtBLxzeSa8jmw@karoo.co.uk>
Source record: 67552

Chris W wrote:

> I want to build a 1.2 Ghz antenna for this tiny wireless camera receiver
> I have. The antenna on it uses an F connector so I am guessing it is a
> 75 ohm antenna. I have seen several web pages with a collinear design
> using 50 ohm coax cable. If I use some 75 ohm cable TV coax to make the
> antenna do I need to do anything else to match the antenna to the 75
> ohms of the RX? Also does anyone know what eh velocity factor for the
> coax the cable company uses is?
>

Chris,

If you are talking about "one off" installation, don't worry about the 75 or 50 Ohms coax. As you say, 75 Ohms seems to be the correct guess as it's a F connector and as the TV world seems to be in love with the 75 Ohms cables/connectors.

You don't really need to be bothered by matching your 50 to 75 Ohms. Most cables and connectors deviate so much as +/- 50% on the actual impedance anyway. The loss tends to be lower in 75 Ohms cables.

If you are concerned over the match, make a Y coax match (Wilkinson ?) You find the recipe for a stup or an Y match in most amateur radio cook books.

The easiest way to make a small aerial for 1.2 GHz (Weird frequency for a wireless camera?!) is to make up a small Yagi aerial on a double sided PCB. You can also make a nice log periodic on a double sided PCB that works for both 1.2 and 2.4GHz. --- Unless you want an omnidirectional aerial of course!

Cheers

Dan / M0DFI

3656. Re: AM Commercial radio reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 12:08:09 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4381b7f6_5@newsfeed.slurp.net>
Source record: 67553

"CWB" wrote:
> Just a FYI...the contour maps at Radio-Locator.com are WRONG
>....the LOCAL on FM maps is actually the distant or Service Contour
>(1mv or 60dbu level)..LOCAL is defined as City Grade or 70dbu or
> 3.16mV level...which they do not show..On AM, they show lower
> levels on the map as well.

Their maps DO correctly show the distances to the contours for the field strengths they identify. Radio-Locator picked different field strength values for the "local" etc contours than those used by the FCC, but that doesn't invalidate the Radio-Locator maps.

And their choices are reasonable. For example on AM, a 2.5 mV/m signal (Radio-Locator's local contour) does provide good service to a typical cheap table radio inside a home in an urban setting.

3657. Re: 1.2 GHZ collinear array

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 16:41:56 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <oNmgf.10172$Vu2.3694@trnddc06>
Source record: 67554

"Chris W" <1qazse4@cox.net> wrote in message
news:shdgf.12584$ih5.1995@dukeread11...
>I want to build a 1.2 Ghz antenna for this tiny wireless camera receiver I
>have. The antenna on it uses an F connector so I am guessing it is a 75
>ohm antenna. I have seen several web pages with a collinear design using
>50 ohm coax cable. If I use some 75 ohm cable TV coax to make the antenna
>do I need to do anything else to match the antenna to the 75 ohms of the
>RX? Also does anyone know what eh velocity factor for the coax the cable
>company uses is?
>
> --
> Chris W
> KE5GIX

Hi Chris

Are you considering building a highly directive collinear antenna like
Brian Oblivion + Capt Kaboom describe on their web site? If so, be sure
to use a coax that you can solder to. Some RG-6 wont take solder. The
RG-6 dielectric is foamed poly, so that makes it a little more difficult to
solder than to Teflon dielectric cables.
The velocity of propagation of RG-6 is not constant. It depends on the
manufacturer. The VP is close to 0.8, but can vary from about 0.75 to
0.85.

If you plan high directivity from an end fed collinear, you will need to
be very careful to build it with precision to produce a main beam thats
perpendicular to it.

The nice part of the "Kaboom" type collinear antenna is it is very
inexpensive to build so you can build one and try it, then make another
thats a bit closer to your requirements (if needed).

Jerry

3658. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 16:53:28 UTC
From: richardharrison@webtv.net
Message-ID: <21898-4381FB88-211@storefull-3251.bay.webtv.net>
Source record: 67556

Cecil, W5DXP wrote:
"There are so many Moore`s that I have no idea who I am kin too."

There is a John Moore in my Houston Area Amateur Radio Club who says he is unrelated to Cecil, he is one of several Moore`s in the club, all claiming not to be related to Cecil. John Moore, however, does claim to have attended Texas A&M with Cecil.

When names were chosen, it seems more would likely choose the name Moore than the name Less. Why are there not more "Mosts"?

Best regards, Richard Harrison, KB5WZI

3659. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 17:02:53 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dlsujs$1i0e$1@f04n12.cac.psu.edu>
Source record: 67555

jgboyles@aol.com wrote:
>
>
>>N4AST's comments are unworthy.> ----
>>Regards, Reg.
>
>
> HI Reg, Unworthy of what? That's like saying your programs smell, but
> not what they smell like-:). I for one an grateful and have used your
> programs, and EZNEC. I consider them both an asset to to my knowledge
> of antennas.

So anyhow, is there some interesting discussion to be had on this antenna? Richard Clark started to touch on it, but I'd like to hear more.

As a true dilletante (so take my advice with a grain of salt), I would have to expect that the antenna isn't going to work all that well, and the wellness of working is going to decrease as the frequency goes down.

Putting more wire in the air generally works, but putting all that wire right next to another wire that is part of the same antenna could make for some issues.

In "short" I suspect that your antenna will work out on the higher bands, but even if you get a match on 160, it won't be too awesome there.

Some other factors with your tuning are going to be height above the ground. I always seem to misoverestimate my height above ground. Was there a suggested height for this antenna?

Hopefully this helps. just remember, I'm no antenna Guru.

73 de Mike KB3EIA -

3660. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 17:33:35 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <Pxngf.3889$3o6.964876@twister.southeast.rr.com>
Source record: 67559

The rubber gaskets around the rear door of SUVs are very accommodating to small coax. Since you are doing a short run, sounds like VHF/UHF, this would accommodate your vertical with an antenna clamp attached to the rear door. Could use RG-58 or RG-59 since it is a short run to your radio.

Good Luck,

Bill, W4WNT
"Gene" <moggy2cat@aol.com> wrote in message
news:1132254478.594949.299550@g44g2000cwa.googlegroups.com...
> Traded recently from a pickup, with external vertical whip
> antenna...to a suv with wire on the window, driver side rear
> window....not a happy camper, with the wire on the window...she who
> must be obeyed, will not allow any non factory holes ! Thought about
> stringing a wire from the front of the luggage rack to the rear of the
> rack, then a small lead to the window, tapped with a clear tape , and
> see if that will couple to the antenna...do not wish to use an
> amplifier, or get too complicated... Any thoughts ? TIA Gene
>

3661. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 17:46:25 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132595185.696159.106680@g49g2000cwa.googlegroups.com>
Source record: 67557

Thanks a lot, Mike

This antenna IS getting the best of me

3662. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 17:52:07 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dlt2l3$83n$1@news.service.uci.edu>
Source record: 67560

Richard Harrison wrote:

>
> Since Clear Channel Communications, Infinity Broadcasting, etc. bought
> most of the non-network-owned broadcast outlets, music stations have
> disappeared. Clear Channel changed the music programming of the last
> sizeable AM music outlet in Houston to sports programming last year.
> That was when I found the 680 KHz signal from San Antonio was usually
> good here 24-hours. I think they run 50-KW nondirectional day time and
> 10-KW nighttime, pointed away from KNBC in San Francisco at nignt. KNBC
> is 50-KW, 680 KHz, non-directional day and night.

That's KNBR. KNBC is a television station in Los Angeles.

http://www.radio-locator.com/cgi-bin/url?call=KNBR&service=AM

73, ac6xg

3663. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 17:58:34 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132595914.847133.16530@z14g2000cwz.googlegroups.com>
Source record: 67558

Well, In it's "finality", I think that for my lot,and my skills,and
my "want" to get on "160meters"
I chose the WRONG antenna. I don't believe that I will ever get
this antenna to work well
enough FOR ME. I would've been better spending the time and
aggrevation on getting my
80m,full-wave loop at 40ft. to cover 160.
Gentlemen, I'm done! Stick a fork in me. I thank all
who tried to understand WHAT
I was trying to do. Maybe next time, I'll stick to "ONLY" the
basic antenna's,and "Keep it
simple , STUPID"!; will be my motto !!
I'll read
more, and do less.....Paladin

3664. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 18:49:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kh54o1hud7jqek6c5g6ukcrc68erfarn4e@4ax.com>
Source record: 67561

On 21 Nov 2005 09:58:34 -0800, "Paladin" <kb1ghh@hotmail.com> wrote:

> Well, In it's "finality", I think that for my lot,and my skills,and
>my "want" to get on "160meters"
> I chose the WRONG antenna. I don't believe that I will ever get
>this antenna to work well
> enough FOR ME.

Hi OM,

Well, you still have options.

Tie all the wires together and use them as a top hat to a vertical.
Verticals have far more reported success on 160M than horizontals.

Of course, you will need to plant more copper in the ground than you
lifted into the air....

73's
Richard Clark, KB7QHC

3665. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 18:54:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <iJogf.32691$6e1.20742@newssvr14.news.prodigy.com>
Source record: 67562

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "There are so many Moore`s that I have no idea who I am kin too."
>
> There is a John Moore in my Houston Area Amateur Radio Club who says he
> is unrelated to Cecil, he is one of several Moore`s in the club, all
> claiming not to be related to Cecil.

Strangely, most Moore's claim not to be related to me. ;-)

> John Moore, however, does claim to have attended Texas A&M with Cecil.

Yep, I've got the yearbook to prove it. John's a good guy.

> When names were chosen, it seems more would likely choose the name Moore
> than the name Less. Why are there not more "Mosts"?

Actually, when the English government decreed that everyone had
to adopt a last name, a host of people who lived out on The Moors
adopted that last name. Some of them may not have been related
even back then, except by geography.

Richard, your last name might have been adopted by someone whose
father was named Harry. Smith probably came from Blacksmith,
Potter from a pottery maker, Johnson from John's son, etc.

The Discovery Channel's "Longitude" featured the considerable
talents of John Harrison, a cabinet maker more famous for his
timepieces than for his cabinets. (Wonder why they didn't just
use the GPS system? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3666. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 20:58:02 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dltccr$5v1$1@engnntp2.cig.mot.com>
Source record: 67563

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:ke2ff.173$qw.10@fed1read07...

> At URL:

> http://home.tiscali.ch/hb9abx/ant--abx-e.htm

> CL -- I doubt, therefore I might be !

>

Sorry Felix, but Isaac Asimov's built-in doubter kicks-in right-away here.

..."I decided to hand out this guide free to the contributers of this
project...."

HUH ? !

>> "A new, revolutionary design allows the construction

>> of small HF antennas, which provide the same efficiency

>> as large antennas."

__same efficiency__ If it sounds too good to be true...

It is larger than the average mobile antenns and, therefore, on the lower
bands where you can't get a full 1/4 wave, it'll do better.

73, Steve, K,9.D;C'I

3667. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 21:09:43 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <39581$4382439a$97d56a33$27458@ALLTEL.NET>
Source record: 67564

The other station I remember as a kid was a Texas station that was physcially located in Mexico and ran a Gazillion watts. Don't remember the call but later was the home of "Wolfman Jack"

I bet like me, you remember the "Dumont Television Network" :>) As a kid I was a go-fer at WXEL in Cleveland, Ohio. It was part of the Dumont network.

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:15195-43810BCF-912@storefull-3252.bay.webtv.net...
> WCKY 1530 KHz should not be omitted from any list of great radio

3668. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 22:05:11 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <rwrgf.22107$tV6.19595@newssvr27.news.prodigy.net>
Source record: 67565

Fred W4JLE wrote:
> The other station I remember as a kid was a Texas station that was
> physcially located in Mexico and ran a Gazillion watts. Don't remember the
> call ...

XERF, Villa Acun~a? "n~" instead of the proper Spanish character.
--
73, Cecil http://www.qsl.net/w5dxp

3669. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 22:18:48 UTC
From: richardharrison@webtv.net
Message-ID: <19147-438247C8-843@storefull-3256.bay.webtv.net>
Source record: 67566

Cecil, W5DXP wrote:
"The Discovery Channel`s "Longitude" featured the considerable talents of John Harrison, a cabinet maker more famous for his timepieces than for his cabinets. Wonder why they didn`t just use the GPS system (funny face)?"

I`d like to claim kinship with John Harrison who built the first chronometer accurate enough to compute longitude, but I can`t. Parliament had offered a huge cash award for such a timepiece or other means of accurately determning longitude. John proved he had won, then tried for years to get full paynent from parliament. Finally John got an audience with the King who declared: "By God, you shall get your payment!", and he was paid. Now, John Harrison is a big feature at the National Maritime Museum at Greenwich. Some of the wooden clocks, gears and all, that John built are still in use and keeping time well. The chronometer is more like a large pocket watch.

GPS is huge. You can immediately know within a few feet exactly where you are, unless you happened to be the target.

There are boat trips on the Thames between London and Greenwich. If the weather is good, it is very pleasant.

Best regards, Richard Harrison, KB5WZI

3670. Re: Not happy new suv antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 22:35:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11o4itbl5sk3e2e@corp.supernews.com>
Source record: 67567

I saw that program on public TV some time back, and highly recommend it
-- it was very interesting.

Some years ago I saw a display on timekeeping at the Smithsonian which
explained and gave an example of each of the advances and innovations in
clockmaking which improved timekeeping accuracy. The last item at the
end of the display was a few-dollar Timex digital watch which, the
caption said, was more accurate than any of the mechanical predecessors.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "The Discovery Channel`s "Longitude" featured the considerable talents
> of John Harrison, a cabinet maker more famous for his timepieces than
> for his cabinets. Wonder why they didn`t just use the GPS system (funny
> face)?"
>
> I`d like to claim kinship with John Harrison who built the first
> chronometer accurate enough to compute longitude, but I can`t.
> Parliament had offered a huge cash award for such a timepiece or other
> means of accurately determning longitude. John proved he had won, then
> tried for years to get full paynent from parliament. Finally John got an
> audience with the King who declared: "By God, you shall get your
> payment!", and he was paid. Now, John Harrison is a big feature at the
> National Maritime Museum at Greenwich. Some of the wooden clocks, gears
> and all, that John built are still in use and keeping time well. The
> chronometer is more like a large pocket watch.
>
> GPS is huge. You can immediately know within a few feet exactly where
> you are, unless you happened to be the target.
>
> There are boat trips on the Thames between London and Greenwich. If the
> weather is good, it is very pleasant.
>
> Best regards, Richard Harrison, KB5WZI
>

3671. Re: Interesting HF antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-21 23:21:06 UTC
From: garigue <garigue@comcast.net>
Message-ID: <kvmdnbXL2YrKyx_enZ2dnUVZ_vydnZ2d@comcast.com>
Source record: 67568

> It is larger than the average mobile antenns and, therefore, on the lower
> bands where you can't get a full 1/4 wave, it'll do better.
>
>
>
>
>
> 73, Steve, K,9.D;C'I

Looks like his car is a spin off from a trolley. I don't think I'd want
one of those on my car no matter how well it worked.

73 Tom KI3R Belle Vernon PA

3672. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 00:39:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m3q4o15298ogjdq1gjff0baii6pm9m5t4i@4ax.com>
Source record: 67569

On Mon, 21 Nov 2005 16:09:43 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>The other station I remember as a kid was a Texas station that was
>physcially located in Mexico and ran a Gazillion watts. Don't remember the
>call but later was the home of "Wolfman Jack"

Hi Fred,

I listened to him too.

XELO out of Del Rio, Texas (yeah, really across the river).

73's
Richard Clark, KB7QHC

3673. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 01:32:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11o4t95ash97606@corp.supernews.com>
Source record: 67570

Richard Clark wrote:
> On Mon, 21 Nov 2005 16:09:43 -0500, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
>
>>The other station I remember as a kid was a Texas station that was
>>physcially located in Mexico and ran a Gazillion watts. Don't remember the
>>call but later was the home of "Wolfman Jack"
>
>
> Hi Fred,
>
> I listened to him too.
>
> XELO out of Del Rio, Texas (yeah, really across the river).

Wolfman Jack (Bob Smith) is immortalized in the movie "American Graffiti", where he plays himself. He died in 1995 at age 56. There's a lot about him on the web. See, for example http://en.wikipedia.org/wiki/Wolfman_Jack.

Roy Lewallen, W7EL

3674. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 02:40:57 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <NP2dnXsn0KqqGB_eRVn-vw@adelphia.com>
Source record: 67571

Paladin wrote:
> Thanks a lot, Mike
>
> This antenna IS getting the best of me
>

I know what you mean, Paladin! And 160 meters is a real booger of a band for most of us to have a horizontal antenna. There are loaded antennas, but I suspect you want multiband performance. I suspect you could tune a loaded antenna cut for 160 meters, but I'd also expect that the radiation pattern on the highest bands would be a bit weird.

Speaking of weird, I wonder in anyone has made a multiband antenna, loaded on 160, and trapped for the other bands? 8^)

What might be a good setup to get you on 160 meters and more would be a vertical antenna. They are a compromise, but most top band antennas are. AFAIC, they are a compromise on most of the other bands too. That is why I have a dipole in addition to a Butternut HF6V.

- 73 de Mike KB3EIA -

3675. SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 05:31:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dluael$d55$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67572

******* Copied from uk.radio.amateur newsgroup. ********

> Reg spoke of the SWR meter as a resistance bridge. It is possible to
build a
> meter that is a bridge
==========

The so-called SWR meter is ALWAYS a resistance bridge (although it may
be described in other terms).

In the HF, 100 watt models, the little ferrite ring is a current
transformer. The turns ratio on the transformer allows the bridge
resistors to be changed to values other than 50-ohms.

For example a bridge resistor which is across the transmitter changes
to 5000 ohms. And a bridge resistor in series with the load changes
to 0.5 ohms. In both cases the power lost in the resistors falls to
the order of 1% of the power which would be lost in 50 ohm resistors.

The meter becomes far more power efficient. With 50-ohm bridge ratio
arms the power lost in the bridge would be 75 percent of Tx power
output.

The 0.5-ohm resistor does not exist. Very cleverly, the input
resistance of the one turn primary winding on the current transformer
becomes the 0.5-ohm bridge arm.

The DC seperation between primary and secondary windings on the
current transformer allows the diode rectifier and moving coil DC
microameter circuit to be operated very nicely all at ground
potential.

Reg, G4FGQ

The term 'meter' is incorrect. It does not 'measure' anything. It
merely 'indicates'.

3676. Re: Emoto Rotators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 06:01:09 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <4382B425.5010604@killspam.internode.on.net>
Source record: 67574

> Depends on how much you know. If the Emoto is in the same price class
> as the Yaesu and HyGain, it would be worth while to build your own
> control box. I would not try to duplicate their unit; just go for
> something basic with a momentary contact DPDT switch for direction,
> and a 0 - 1 ma meter for an indicator. If this is a 3 wire or 4 wire
> unit, forget about it.
>
> Tam/WB2TT

The rotator has an odd connector - 6 pin from memory - but I should be
able to do something about that. I really want to see the rotator's
circuit before deciding if I feel like making a control unit. It
shouldn't be too difficult if it comprises just a motor, potentiometer
and limit switches. The most important bits to me are the mechanical parts -
I can't make them.
Thanks to the other poster who replied - I found most of the references
on the 'net to be a bit lacking in the detail I need.
Alan

3677. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 06:46:38 UTC
From: jeffreyh@Hawaii.Edu
Message-ID: <dluesegmp1@news.hawaii.edu>
Source record: 67573

Reg Edwards <g4fgq,regp@ZZZbtinternet,com> wrote:
>
>Regarding the Smith Chart, I have myself never found it to be of any
>use. In fact I don't know how to use it.

I have nothing to add to this thread other than to say that I thought
the above was an odd combination of sentences.

>But enough about me. What are you doing about Bush?

Because he's my Commander-in-Chief I support him in every regard.
But aside from that, he's doing exactly what I'm paying him to do (with
respect to my federal taxes helping to pay his salary). He's a good man
but I'm afraid you've been brainwashed by the liberal media to think
otherwise.

73 from Hawaii,
Jeff KH6O

--
Chief Petty Officer, U.S. Coast Guard
Mathematics Lecturer, University of Hawaii System

3678. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 08:19:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <usk5o196ae1ndhvs1rk4gna7cdaamhk6qs@4ax.com>
Source record: 67575

On Mon, 21 Nov 2005 17:32:21 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Richard Clark wrote:
>> On Mon, 21 Nov 2005 16:09:43 -0500, "Fred W4JLE" <w4jle@w4jle.com>
>> wrote:
>>
>>
>>>The other station I remember as a kid was a Texas station that was
>>>physcially located in Mexico and ran a Gazillion watts. Don't remember the
>>>call but later was the home of "Wolfman Jack"
>>
>>
>> Hi Fred,
>>
>> I listened to him too.
>>
>> XELO out of Del Rio, Texas (yeah, really across the river).
>
>Wolfman Jack (Bob Smith) is immortalized in the movie "American
>Graffiti", where he plays himself. He died in 1995 at age 56. There's a
>lot about him on the web. See, for example
>http://en.wikipedia.org/wiki/Wolfman_Jack.

Hi Roy,

The better majority of listings cite XERF, certainly, but seem as
likely to obliquely refer to XELO whose call letters seemed to be
re-assigned on a whim. One thing I have no doubt of, tho', is that
guttural rasp announcing "from Del Reee o Texas."

73's
Richard Clark, KB7QHC

3679. Car Radio Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 12:08:33 UTC
From: developmental2@walla.com
Message-ID: <1132661313.879566.314570@g14g2000cwa.googlegroups.com>
Source record: 67476

Hi,

I am looking for a new Car Radio/CD, to solve terrible reception problems I have
- probably a manufacturing flaw with the car the manufacurer supplied radio- changed both (to same model) and the problems presist, no FM station holds for more than a minute anyhwere in the country- either in manual and auto scan, while in my house even the cheapest radio transistor works fine.

I thought of DEHP4750MP Pioneer, it lists "IIID SuperTuner" as a feature, whatever that is?
Then saw that it doesn't support RDS. Seems strange for such an advanced piece of technology. Anyway in another Cadence model, it is advertised as having "Radio sensitivity" of 10dB-UV to 30dB, what does that mean and what values should I be looking for to get maximum sensitivity?

thank you!

3680. Re: Car Radio Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 12:30:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <5cEgf.2025$rq3.582@newssvr19.news.prodigy.com>
Source record: 67477

Before buying a new radio try plugging the antenna
firmly into the one you have now. Might be suprized.
- 'Doc

3681. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 12:34:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <rfEgf.2028$rq3.857@newssvr19.news.prodigy.com>
Source record: 67478

Reg,
You said,"The term 'meter' is incorrect. It does not 'measure'
anything. It merely 'indicates'." ... Sounds a lot like a definition
of a politician. What comes out is what was fed in, with about
10% accuracy...
'Doc

3682. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 13:45:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dlv7d7$r3m$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67479

> You said,"The term 'meter' is incorrect. It does not 'measure'
> anything. It merely 'indicates'." ... Sounds a lot like a definition
> of a politician. What comes out is what was fed in, with about
> 10% accuracy...
> 'Doc

Same over here except that it's only 5%. I have more faith in SWR
meters with bent needles.

Reg.

3683. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 20:05:12 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1132689912.837569.99080@g47g2000cwa.googlegroups.com>
Source record: 67480

Thanks Rich, As we get closer to that dreaded season called
"Winter-wonderland"
I'll remember that idea on some cold'n blustery day! Don't even
have to climb
a step ladder to do that!

73's, Paladin

3684. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 21:48:28 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <MmMgf.3892$43.813@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 67481

On 22/11/2005 1:46 AM, Jeffrey Herman wrote:
> Reg Edwards <g4fgq,regp@ZZZbtinternet,com> wrote:
>> Regarding the Smith Chart, I have myself never found it to be of any
>> use. In fact I don't know how to use it.
>
> I have nothing to add to this thread other than to say that I thought
> the above was an odd combination of sentences.
>
'Tis odd, indeed.

>> But enough about me. What are you doing about Bush?
>
> Because he's my Commander-in-Chief I support him in every regard.
> But aside from that, he's doing exactly what I'm paying him to do (with
> respect to my federal taxes helping to pay his salary). He's a good man
> but I'm afraid you've been brainwashed by the liberal media to think
> otherwise.
>
Totally off topic, but you do know what "liberal" really means when used to describe political ideals, right? I mean, you've looked it up as it is used in political studies or anthropology? This word gets a lot of use in today's polemics (especially in the US, where it has become quite the loaded term) but it is usually misapplied in this context. To the point of being used in the exact opposite from the definition. That is, not just simple connotative slip.

(For some reason, the line from _The Princess Bride_ came to mind, "You keep using that word. I do not think it means what you think it means.")

(Inconceivable!)

Also, I'm pretty sure you don't know your president personally, so it is technically a fallacy to say "he is a good man." Perhaps you surmise from his actions (or the second-hand, imperfect, reports of such actions) that he has qualities you admire? The problem, of course, is that just as many people could come to the opposite determination of the president being a "bad man" by the very same actions. I mean, how does one know if they are the one being brain-washed or not?

I'm also puzzled why one would espouse total support of a "Commander-in-Chief" simply because he is "the Chief." I'm not singling you out, as I see examples of this sentiment everywhere (i.e., not just in the US.) It seems to go against the principles of democracy and informed citizenry. I don't think I'm exaggerating when I say that such a sentiment is more a fundamental marker of totalitarianism.

3685. TDA1083 IC, I need help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 22:07:29 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1132697249.039816.192720@g43g2000cwa.googlegroups.com>
Source record: 67482

Hi all,

Happy Thanksgiving!

I am looking at the TDA1083 IC. The datasheet shows the following
image:
http://img120.imageshack.us/img120/2720/tda1083blockdiagram1sr.jpg

I'm trying to figure out where the input for the FM signal goes. This
IC is supposed to be an AM/FM receiver, but this newbie is a bit
clueless as to where the FM antenna and matching network should be
connected.

Any tips?

I figured there are many veterans here who have messed around with
radio ICs, so I'm trying my luck here.

Thanks!

3686. Re: TDA1083 IC, I need help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 22:38:37 UTC
From: jgboyles@aol.com
Message-ID: <1132699117.765855.300380@g44g2000cwa.googlegroups.com>
Source record: 67483

MRW wrote:
> Hi all,
>
> Happy Thanksgiving!
>
> I am looking at the TDA1083 IC. The datasheet shows the following
> image:
> http://img120.imageshack.us/img120/2720/tda1083blockdiagram1sr.jpg
>
> I'm trying to figure out where the input for the FM signal goes. This
> IC is supposed to be an AM/FM receiver, but this newbie is a bit
> clueless as to where the FM antenna and matching network should be
> connected.
>
> Any tips?
>
> I figured there are many veterans here who have messed around with
> radio ICs, so I'm trying my luck here.

Hi MRW, the Homebrew Group might be a better place to ask this. Looking at the IC, it appears you need an external Local Oscillator and Mixer for the FM section, and that is where the rf input for the FM section should go. Looks like it has an LO and mixer for AM on the IC. I have never used this IC.
Gary N4AST

3687. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 22:43:10 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dm073h$pd5$1@news.service.uci.edu>
Source record: 67484

clvrmnky wrote:

> Also, I'm pretty sure you don't know your president personally, so it is
> technically a fallacy to say "he is a good man." Perhaps you surmise
> from his actions (or the second-hand, imperfect, reports of such
> actions) that he has qualities you admire? The problem, of course, is
> that just as many people could come to the opposite determination of the
> president being a "bad man" by the very same actions. I mean, how does
> one know if they are the one being brain-washed or not?

Is saying bad things about people you don't know morally equivalent to
saying good things about them? Some people believe that if it is
repeated often enough and long enough, it will become so.

> I'm also puzzled why one would espouse total support of a
> "Commander-in-Chief" simply because he is "the Chief."

The not-so clvr mnky might consider that to those for whom the current
Commander-in-Chief is Commander-in-Chief, it's pretty clear whose side
he is on.

ac6xg

3688. Re: TDA1083 IC, I need help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-22 23:33:24 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <yFOdnRBWbY5ZNx7eSa8jmw@karoo.co.uk>
Source record: 67485

jgboyles@aol.com wrote:

> MRW wrote:
>> Hi all,
>>
>> Happy Thanksgiving!
>>
>> I am looking at the TDA1083 IC. The datasheet shows the following
>> image:
>> http://img120.imageshack.us/img120/2720/tda1083blockdiagram1sr.jpg
>>
>> I'm trying to figure out where the input for the FM signal goes. This
>> IC is supposed to be an AM/FM receiver, but this newbie is a bit
>> clueless as to where the FM antenna and matching network should be
>> connected.
>>
>> Any tips?
>>
>> I figured there are many veterans here who have messed around with
>> radio ICs, so I'm trying my luck here.
>
> Hi MRW, the Homebrew Group might be a better place to ask this. Looking
> at the IC, it appears you need an external Local Oscillator and Mixer
> for the FM section, and that is where the rf input for the FM section
> should go. Looks like it has an LO and mixer for AM on the IC. I have
> never used this IC.
> Gary N4AST

First, why on earth do you want to use this old chip?! There are plenty
around that are easier to interface as well as almost complete receivers.

Could you please tell us what you actually want to do so we can point you in
the correct direction.

Cheers

Dan

3689. Re: TDA1083 IC, I need help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 00:51:31 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <SpednW-J05CWIB7eRVn-sQ@web-ster.com>
Source record: 67486

MRW wrote:
> Hi all,
>
> Happy Thanksgiving!
>
> I am looking at the TDA1083 IC. The datasheet shows the following
> image:
> http://img120.imageshack.us/img120/2720/tda1083blockdiagram1sr.jpg
>
> I'm trying to figure out where the input for the FM signal goes. This
> IC is supposed to be an AM/FM receiver, but this newbie is a bit
> clueless as to where the FM antenna and matching network should be
> connected.
>
> Any tips?
>
> I figured there are many veterans here who have messed around with
> radio ICs, so I'm trying my luck here.
>
> Thanks!
>
If you can find a data sheet there should be a sample circuit, or a test
circuit. These can be invaluable for showing what the designers were
thinking.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3690. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 01:14:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6cg7o19cl5157bm1hd1b8snfd3f00cfuc2@4ax.com>
Source record: 67487

On Tue, 22 Nov 2005 16:48:28 -0500, clvrmnky
<clvrmnky-uunet@coldmail.com.invalid> wrote:

>(For some reason, the line from _The Princess Bride_ came to mind, "You
>keep using that word. I do not think it means what you think it means.")
>
>(Inconceivable!)

Not having seen _The Princess Bride_, it would seem to be pointless to
be one in the context of _Inconceivable!_

3691. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 11:21:02 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438406e7@fidonet.org>
Source record: 67488

"clvrmnky" bravely wrote to "All" (22 Nov 05 16:48:28)
--- on the heady topic of "Re: feedlines and strange intereactions"

cl> From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
cl> Xref: core-easynews rec.radio.amateur.antenna:220293

cl> On 22/11/2005 1:46 AM, Jeffrey Herman wrote:
> Reg Edwards <g4fgq,regp@ZZZbtinternet,com> wrote:
>> Regarding the Smith Chart, I have myself never found it to be of any
>> use. In fact I don't know how to use it.
>
> I have nothing to add to this thread other than to say that I thought
> the above was an odd combination of sentences.
>
cl> 'Tis odd, indeed.

>> But enough about me. What are you doing about Bush?
>
> Because he's my Commander-in-Chief I support him in every regard.
> But aside from that, he's doing exactly what I'm paying him to do (with
> respect to my federal taxes helping to pay his salary). He's a good man
> but I'm afraid you've been brainwashed by the liberal media to think
> otherwise.
[,,,]

cl> I'm also puzzled why one would espouse total support of a
cl> "Commander-in-Chief" simply because he is "the Chief." I'm not
cl> singling you out, as I see examples of this sentiment everywhere
cl> (i.e., not just in the US.) It seems to go against the principles of
cl> democracy and informed citizenry. I don't think I'm exaggerating when
cl> I say that such a sentiment is more a fundamental marker of
cl> totalitarianism.

One should never let political allegiances make one deny what one
believes is true and against good judgement. Blind acceptance is to
open the door to let the goosestepping brutes into the human race.
I agree...

A*s*i*m*o*v

... Murphy's rule of combat: Incoming fire has right of way

3692. Re: TDA1083 IC, I need help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 12:13:42 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1132748022.940300.278840@z14g2000cwz.googlegroups.com>
Source record: 67489

Hi Dan,

Got any other newer chip suggestions?

I just wanted to build a small receiver.

Thanks!

3693. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 15:34:07 UTC
From: richardharrison@webtv.net
Message-ID: <13799-43848BEF-36@storefull-3254.bay.webtv.net>
Source record: 67490

Cecil, W5DXP wrote:
"XERF, Villa Acun~a? "n~" instead of the proper Spanish character."

Bingo!

Little Acun~a has now grown to Ciudade Acun~a, Studios were in Del Rio, Texas, I believe.

There is a book I found interesting about super-power broadcasting from the banks of the Rio Grande. I think the title was "Border Radio". It began with Dr. Brinkley, a chiropractor I believe, who advertised monkey and goat gland implants for remediation of erectile dysfunction. It ended with the RCA Ampliphase monster that RCA installed, and abanoned across the Rio when they could not meet specs. Consultants hired by the buyer made it work as advertised after a long struggle with RCA. Between these stories were tales of some of the other colorful characters who broadcast on these high powered stations.

Best regards, Richard Harrison, KB5WZI

3694. Re: Loop Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 16:12:19 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Dx0hf.24567$Zv5.19119@newssvr25.news.prodigy.net>
Source record: 67491

Richard Harrison wrote:
> Between
> these stories were tales of some of the other colorful characters who
> broadcast on these high powered stations.

I remember a couple of the advertisers from the 50's:
Randy's Record Mart in Gallatin, TN and White Rose
Petroleum Jelly. White Rose had a contest for unusual
uses for their petroleum jelly. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3695. Re: TDA1083 IC, I need help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 16:47:50 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <W21hf.19$id.13@trnddc04>
Source record: 67492

"MRW" <mr.whatever@gmail.com> wrote in message
news:1132748022.940300.278840@z14g2000cwz.googlegroups.com...
> Hi Dan,
>
> Got any other newer chip suggestions?
>
> I just wanted to build a small receiver.
>
> Thanks!

Hi MrW

Try Googling "one chip am/fm dadio with power amlifier tda1083". ATMEL Wireless show a complete circuit diagram, including the antenna connection. That looks like an interesting/worthwhile project. Good luck.

Jerry

3696. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 19:22:00 UTC
From: clvrmnky <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <sj3hf.3958$43.2043@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 67493

On 22/11/2005 5:43 PM, Jim Kelley wrote:
> clvrmnky wrote:
>
>> Also, I'm pretty sure you don't know your president personally, so it
>> is technically a fallacy to say "he is a good man." Perhaps you
>> surmise from his actions (or the second-hand, imperfect, reports of
>> such actions) that he has qualities you admire? The problem, of
>> course, is that just as many people could come to the opposite
>> determination of the president being a "bad man" by the very same
>> actions. I mean, how does one know if they are the one being
>> brain-washed or not?
>
> Is saying bad things about people you don't know morally equivalent to
> saying good things about them? Some people believe that if it is
> repeated often enough and long enough, it will become so.
>
Your question puzzles me. I don't recall making any value statements,
or mentioning any moral imperatives. People say things. Other people
hear them, or hear about it from others. We can only arrive at some
concrete value for abstracts like "good" or "true" by consensus and
examination.

>> I'm also puzzled why one would espouse total support of a
>> "Commander-in-Chief" simply because he is "the Chief."
>
> The not-so clvr mnky might consider that to those for whom the current
> Commander-in-Chief is Commander-in-Chief, it's pretty clear whose side
> he is on.
>
We have met the enemy, and he is us!

Seriously, I have no idea what you are driving at. Whose side is who
on? I was speaking to the notion that tautologies such as "I support
the chief because he is the chief" seem odd to me. Even the inverse is
a tautology.

3697. Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 19:28:47 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dm2fte$1f6m$1@f04n12.cac.psu.edu>
Source record: 67494

Slightly OT, but kinda fun anyhow.....

I'd been trying to locate a reasonably priced USB cable over the weekend It seems that you often pay as much for the cable as you fo for the device you are connecting to the computer.

Has stereo voodoo physics entered the computer realm?

Anyhow, I ended up in a Radio Shack store, found the cheapest cable I could, (20 bucks) and made the mistake of mentioning something to the salesman about the funny claims on the packages. Big mistake, I had blasphemed his religion. In the next couple minutes I learned that:

Turns out that different frequencies travel at different speeds down the cable. Good cables have special formulations of wire that compensate for this.

Everybody knows that!

He didn't know what velocity factor was, but let me know that he had taken physics classes, so he knew what he was talking about.

So why have u antenna gurus been misleading us?!

Now that my eyes have been opened I understand....

Looking at an antenna, it becomes obvious that the lower the frequency, the slower the signal moves. The extra length of the antenna allows the RF to accellerate enough so that when it reached the end of the antenna, it has enough velocity to shoot out and not float straight up. Those really high frequencies are zipping by so fast that they hardly need any wire to get to TOSP (Take-off speed)

Wow, I have reached true enlightenment.............

- Mike KB3EIA -

3698. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 19:36:08 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dm2gb7$1f72$1@f04n12.cac.psu.edu>
Source record: 67495

Reg Edwards wrote:

>>You said,"The term 'meter' is incorrect. It does not 'measure'
>>anything. It merely 'indicates'." ... Sounds a lot like a definition
>>of a politician. What comes out is what was fed in, with about
>>10% accuracy...
>> 'Doc
>
>
> Same over here except that it's only 5%. I have more faith in SWR
> meters with bent needles.

A man with a watch knows the time.

A man with two watches is never sure......

- Mike KB3EIA -

3699. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 19:43:15 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ahh9o11ifb58t60o4lrq790p9jbcvrk562@4ax.com>
Source record: 67496

On Wed, 23 Nov 2005 14:28:47 -0500, Michael Coslo
<mjc5@enoughalready.psu.edu> wrote:

>Slightly OT, but kinda fun anyhow.....
>
>I'd been trying to locate a reasonably priced USB cable over the weekend
>It seems that you often pay as much for the cable as you fo for the
>device you are connecting to the computer.
>
>Has stereo voodoo physics entered the computer realm?
>
>Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
>could, (20 bucks) and made the mistake of mentioning something to the
>salesman about the funny claims on the packages. Big mistake, I had
>blasphemed his religion. In the next couple minutes I learned that:
>
>Turns out that different frequencies travel at different speeds down the
>cable. Good cables have special formulations of wire that compensate for
>this.
>
> Everybody knows that!
>
> He didn't know what velocity factor was, but let me know that he had
>taken physics classes, so he knew what he was talking about.
>
> So why have u antenna gurus been misleading us?!
>
>
> Now that my eyes have been opened I understand....
>
> Looking at an antenna, it becomes obvious that the lower the frequency,
>the slower the signal moves. The extra length of the antenna allows the
>RF to accellerate enough so that when it reached the end of the antenna,
>it has enough velocity to shoot out and not float straight up. Those
>really high frequencies are zipping by so fast that they hardly need any
>wire to get to TOSP (Take-off speed)
>
> Wow, I have reached true enlightenment.............

Mike, sounds like he is well on the way to a ham licence... did you
sign him up?

Owen
--

3700. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 19:50:01 UTC
From: Dave <noone@nowhere.com>
Message-ID: <3_qdnUi0xLlxWhnenZ2dnUVZ_sCdnZ2d@crocker.com>
Source record: 67497

"Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
news:dm2fte$1f6m$1@f04n12.cac.psu.edu...
> Slightly OT, but kinda fun anyhow.....
>
> I'd been trying to locate a reasonably priced USB cable over the weekend
> It seems that you often pay as much for the cable as you fo for the device
> you are connecting to the computer.
>
> Has stereo voodoo physics entered the computer realm?
>
> Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
> could, (20 bucks) and made the mistake of mentioning something to the
> salesman about the funny claims on the packages. Big mistake, I had
> blasphemed his religion. In the next couple minutes I learned that:
>
> Turns out that different frequencies travel at different speeds down the
> cable. Good cables have special formulations of wire that compensate for
> this.
>
> Everybody knows that!

you didn't know that? its called frequency dispersion. fortunately it is a
relatively small effect and in normal bandwidths hams use it can be ignored.
for very high bandwidth signals like high speed digital stuff it can badly
distort the waveforms and can be the limiting factor in determining maximum
cable lengths without repeaters.

3701. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 20:29:37 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndo9k9h.mta.bit-bucket@shell.config.com>
Source record: 67498

On Wed, 23 Nov 2005 19:43:15 GMT, Owen Duffy wrote:
> On Wed, 23 Nov 2005 14:28:47 -0500, Michael Coslo wrote:
>
>>Slightly OT, but kinda fun anyhow.....
>>
>>I'd been trying to locate a reasonably priced USB cable over the weekend
>>It seems that you often pay as much for the cable as you fo for the
>>device you are connecting to the computer.
>>
>>Has stereo voodoo physics entered the computer realm?
>>
>>Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
>>could, (20 bucks) and made the mistake of mentioning something to the
>>salesman about the funny claims on the packages. Big mistake, I had
>>blasphemed his religion. In the next couple minutes I learned that:
>>
>>Turns out that different frequencies travel at different speeds down the
>>cable. Good cables have special formulations of wire that compensate for
>>this.
>>
>> Everybody knows that!
>>
>> He didn't know what velocity factor was, but let me know that he had
>>taken physics classes, so he knew what he was talking about.
>
> Mike, sounds like he is well on the way to a ham licence... did you
> sign him up?

Too much ruckus has been focused on the 'No Code License' issue.
The ruckus should, instead, be focused on the 'No Clue License'.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

3702. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 20:42:20 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dm2k7b$1gmu$1@f04n12.cac.psu.edu>
Source record: 67499

Dave wrote:

> "Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
> news:dm2fte$1f6m$1@f04n12.cac.psu.edu...
>
>>Slightly OT, but kinda fun anyhow.....
>>
>>I'd been trying to locate a reasonably priced USB cable over the weekend
>>It seems that you often pay as much for the cable as you fo for the device
>>you are connecting to the computer.
>>
>>Has stereo voodoo physics entered the computer realm?
>>
>>Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
>>could, (20 bucks) and made the mistake of mentioning something to the
>>salesman about the funny claims on the packages. Big mistake, I had
>>blasphemed his religion. In the next couple minutes I learned that:
>>
>>Turns out that different frequencies travel at different speeds down the
>>cable. Good cables have special formulations of wire that compensate for
>>this.
>>
>>Everybody knows that!
>
>
> you didn't know that? its called frequency dispersion. fortunately it is a
> relatively small effect and in normal bandwidths hams use it can be ignored.
> for very high bandwidth signals like high speed digital stuff it can badly
> distort the waveforms and can be the limiting factor in determining maximum
> cable lengths without repeaters.

Oh yes, I've heard of dispersion. But that isn't what the guy was
talking about in our context. He was talking about gross effects.

- Mike KB3EIA -

3703. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 21:31:09 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <dkn9o1ti5f0vk7bt3njiqbt8idjrbif55b@4ax.com>
Source record: 67500

On 23 Nov 2005 20:29:37 GMT, Allodoxaphobia <bit-bucket@config.com>
wrote:

>Too much ruckus has been focused on the 'No Code License' issue.
>The ruckus should, instead, be focused on the 'No Clue License'.

I never mentioned the no-code licence... we got over that over a year
ago down under.

I suggest it is not a matter of the no-clue licence, but the no-clue
licensee, who could be licensed in any grade.

Owen
(Spelling correct for country of origin!)
--

3704. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-23 22:54:07 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <jq6hf.23866$dO2.23154@newssvr29.news.prodigy.net>
Source record: 67501

Next time try an outfit called "Big Lots"-- they had packs of 3
USB cables- for about 8 bucks, if memory serves!! And, their clerks
are dumb, and KNOW that they are dumb, so no lecture from them,
if you can even find one that "speaka d' english " ! They are an
overstock/closeout specialty store, and have everything from food to
computer disks and small handtools! Relatively inexpensive, too-- Jim
NN7K

Michael Coslo wrote:
> Slightly OT, but kinda fun anyhow.....
>
> I'd been trying to locate a reasonably priced USB cable over the weekend
> It seems that you often pay as much for the cable as you fo for the
> device you are connecting to the computer.
>
> Has stereo voodoo physics entered the computer realm?
>
> Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
> could, (20 bucks) and made the mistake of mentioning something to the
> salesman about the funny claims on the packages. Big mistake, I had
> blasphemed his religion. In the next couple minutes I learned that:
>
> Turns out that different frequencies travel at different speeds down the
> cable. Good cables have special formulations of wire that compensate for
> this.
>
> Everybody knows that!
>
> He didn't know what velocity factor was, but let me know that he had
> taken physics classes, so he knew what he was talking about.
>
> So why have u antenna gurus been misleading us?!
>
>
> Now that my eyes have been opened I understand....
>
> Looking at an antenna, it becomes obvious that the lower the
> frequency, the slower the signal moves. The extra length of the antenna
> allows the RF to accellerate enough so that when it reached the end of
> the antenna, it has enough velocity to shoot out and not float straight
> up. Those really high frequencies are zipping by so fast that they
> hardly need any wire to get to TOSP (Take-off speed)
>
> Wow, I have reached true enlightenment.....

>
>
>
> - Mike KB3EIA -
>
>
>

3705. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 00:15:17 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <6-2dnWVQyYWJmxjeRVn-gw@adelphia.com>
Source record: 67502

Jim - NN7K wrote:
> Next time try an outfit called "Big Lots"-- they had packs of 3
> USB cables- for about 8 bucks, if memory serves!! And, their clerks
> are dumb, and KNOW that they are dumb, so no lecture from them,
> if you can even find one that "speaka d' english " ! They are an
> overstock/closeout specialty store, and have everything from food to
> computer disks and small handtools! Relatively inexpensive, too-- Jim

Good tip, Jim! We have one of them here, and I'm going to check on Friday.

- Mike KB3EIA -

3706. vert dipole vs vert

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 01:37:08 UTC
From: ml <m@di.net>
Message-ID: <m-2C4B55.20370223112005@news.verizon.net>
Source record: 67503

i was trying to figure loosly in real world case

what the difference would be (generally speaking) between say a verticle all band commercial antenna on my roof (of my tall apt building) i'd naturally install it's radial kit

vs

a equal all band (yeah i know it'd be tall) virticle dipole (tweeked w/a tuner sgc at feedpoint

would i suspect they would perform about the same or dramatically different?

all band defined as 80-10m

thanks all and happy thanks giving

3707. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 01:45:03 UTC
From: py8elo <py8elo.1yze58@news.radiobanter.com>
Message-ID: <py8elo.1yze58@news.radiobanter.com>
Source record: 67505

Hi Dave,
The resistor is manufactured right here under indent in Brazil,
the balun I build for myself using 8 ferrite beads in material 43 OD =
15mm ID = 8mm...
with each 4 of them I make a tube gluing them and soon after I glue the
two tubes forming a binocular core. In it I wind two turns of 16AWG wire
and a bifilar wound of 4 turns done with the same wire on the first 2
turns...Of this wound, I joint the begins of a wire in order to the end
of the other wire, placing them in against-phase...The extremities that
remain will be the high impedance (about 800 Ohms) out to the antenna,
them points that were united will join to one of the points of the
first wound, which will go to the GND and the point that it remains of
the first wound will be the inner of the 50 Ohms coax connector
(SO239)... But, it is for low power power... For 1500 Watts you should
find the core and the appropriate wire...
I hope it can help you...
Best 73's,
Silva.
PY8ELO
David G. Nagel Wrote:
> Silva;
>
> No reason why your plan should not work. It might require differend
> spacing but that is what amateur radios if for: experimentation.
> I will give it a try. Where did you get your balun or how did you make
> it? Is there a web page showing how?
>
> Dave WD9BDZ
>
>
> py8elo wrote:
>
> Hi Dave,
> I use a 1K Ohms resistor and a 16:1 balun. But you can use a 600 Ohms
> resistor an a 12:1 balun.
> I hope it can help you.
> Best 73's,
> Silva PY8ELO.
>
> David G. Nagel Wrote:
>
> Dave;

>
> The only source of resistors and baluns that I have found suitable for
> making a B&W antenna is B&W. The terminating resistor is 600 ohms
> non-inductive i.e. carbon. The balun is 12 to 1 i.e. 600:50.
>
> If you do find instructions on making the balun please let me know. I
> use my B&W BWD-90 daily and it does the job I want it to do. I need
> broad band instant QSY for my radio.
>
> Dave WD9BDZ
>
>
> py8elo wrote:
>
> Hi Dave,
> I believe the resistor should not be inductive and it should have at
> least 30% of the transmission power therefore, for 1500 Watts it
> should
> be of at least 500 Watts.
> I build the balun for this antenna (andthe antenna) but I believe in
> your country is not difficult to acquire it.
> I hope it can help you.
> VY 73s,
> Silva.
> PY8ELO
>
> Dave Wrote:
>
> I'd like to build a replica of the B&W 65 or 90 folded dipole antenna.
>
> I know that there are a lot of arguments against this type of antenna
> but for the convienience, I would like to have one anyway.
>
> $220 - $250 seems a bit steep to buy one.
>
> I have read L.B. Cebik's article on Terminated Wideband Dipoles,
> http://www.cebik.com/wbfd.html but have been unable to find a source
> for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>
> The only resistors of that value and wattage I have found are
> wirewounds which I assume are not suitable because they are inductive.
>
> For an antenna to handle legal limit 1500 watts is it necessary for
> the terminating resistor to be 1500 watts? It seems to me that you
> would hope that the majority of the power would be dissappated by the
> wire and not the resistor.
>
> Does anyone know where I can find a plan for the balun (or a resonably
> priced commercially made one)? How about the resistor?

>
> Thanks,
>
> Dave
>
>
>
>
>
>

--
py8elo

3708. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 02:30:42 UTC
From: Iitoi <Iitoi.1yze59@news.radiobanter.com>
Message-ID: <Iitoi.1yze59@news.radiobanter.com>
Source record: 67506

Michael Coslo Wrote:
> Turns out that different frequencies travel at different speeds down the
> cable. Good cables have special formulations of wire that compensate for
> this.
>

You can increase the velocity factor (and shorten the antenna) by using
a good grade of Carnuba automobile wax to make the antenna slipperyer,
which (because of skin effect) allows the signal to accelerate faster.

The Man in the Maze
QRV from Baboquivari Peak, AZ

--
Iitoi

3709. Happy Thanksgiving

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 02:55:58 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d5d2e$43852bc0$97d56a33$6604@ALLTEL.NET>
Source record: 67504

A happy Thanksgiving to all... May your day be a joyous one with friends and family.

73 Fred W4JLE / NNN0AAG

3710. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 03:51:29 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <i0eao1d95f8g9lo7au8597gmp56knaj7n0@4ax.com>
Source record: 67507

On Wed, 23 Nov 2005 14:28:47 -0500, Michael Coslo
<mjc5@enoughalready.psu.edu> wrote:

>Slightly OT, but kinda fun anyhow.....
>
>....
>
> Wow, I have reached true enlightenment.............
>
>
>
> - Mike KB3EIA -
>
>

My favorite RShack items are the $100+ "Monster" cables to hook up
TV/DVD players. Gotta get those optical electrons flowing just
right...

bob
k5qwg

3711. Re: Happy Thanksgiving

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 04:19:07 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <sabhf.28297$qw.26958@fed1read07>
Source record: 67508

And likewise Fred - hope your holidays are merry and bright
--
CL -- I give thanks, therefore I am !

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:d5d2e$43852bc0$97d56a33$6604@ALLTEL.NET...
>A happy Thanksgiving to all... May your day be a joyous one with friends
>and
> family.
>
> 73 Fred W4JLE / NNN0AAG
>
>

3712. Re: feedlines and strange intereactions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 04:26:36 UTC
From: jeffreyh@Hawaii.Edu
Message-ID: <dm3fds$h3k$1@news.hawaii.edu>
Source record: 67509

clvrmnky wrote:

> Also, I'm pretty sure you don't know your president personally, so it is
> technically a fallacy to say "he is a good man."

We judge people daily by their actions and their stated beliefs. His actions exactly follow his beliefs: Freedom is a God given right, and we will do everything in our power to help those that are oppressed.

> Perhaps you surmise
> from his actions (or the second-hand, imperfect, reports of such
> actions) that he has qualities you admire? The problem, of course, is
> that just as many people could come to the opposite determination of the
> president being a "bad man" by the very same actions. I mean, how does
> one know if they are the one being brain-washed or not?

Fundamental differences in what people believe (e.g., preemptive action versus complacency) will determine their opinion.

>Is saying bad things about people you don't know morally equivalent to
>saying good things about them?

I'm not convinced that saying bad things about someone you don't know has any moral value at all, unless one's negative image of that person is based upon that person's actions and beliefs.

> I'm also puzzled why one would espouse total support of a
> "Commander-in-Chief" simply because he is "the Chief."

You're puzzled due to the fact that you've never served in the armed forces of the United States.

(Follow-ups set to email.)

73, Jeff KH6O
--
Chief Petty Officer, U.S. Coast Guard
Mathematics Lecturer, University of Hawaii System

3713. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 04:33:25 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11oagkugp592t2f@corp.supernews.com>
Source record: 67510

py8elo wrote:
> Hi Dave,
> The resistor is manufactured right here under indent in Brazil,
> the balun I build for myself using 8 ferrite beads in material 43 OD =
> 15mm ID = 8mm...
> with each 4 of them I make a tube gluing them and soon after I glue the
> two tubes forming a binocular core. In it I wind two turns of 16AWG wire
> and a bifilar wound of 4 turns done with the same wire on the first 2
> turns...Of this wound, I joint the begins of a wire in order to the end
> of the other wire, placing them in against-phase...The extremities that
> remain will be the high impedance (about 800 Ohms) out to the antenna,
> them points that were united will join to one of the points of the
> first wound, which will go to the GND and the point that it remains of
> the first wound will be the inner of the 50 Ohms coax connector
> (SO239)... But, it is for low power power... For 1500 Watts you should
> find the core and the appropriate wire...
> I hope it can help you...
> Best 73ï¿½s,
> Silva.
> PY8ELO
> David G. Nagel Wrote:
>
>>Silva;
>>
>>No reason why your plan should not work. It might require differend
>>spacing but that is what amateur radios if for: experimentation.
>>I will give it a try. Where did you get your balun or how did you make
>>it? Is there a web page showing how?
>>
>>Dave WD9BDZ
>>
>>
>>py8elo wrote:
>>
>>Hi Dave,
>>I use a 1K Ohms resistor and a 16:1 balun. But you can use a 600 Ohms
>>resistor an a 12:1 balun.
>>I hope it can help you.
>>Best 73ï¿½s,
>>Silva PY8ELO.
>>
>>David G. Nagel Wrote:
>>

>>Dave;
>>
>>The only source of resistors and baluns that I have found suitable for
>>making a B&W antenna is B&W. The terminating resistor is 600 ohms
>>non-inductive i.e. carbon. The balun is 12 to 1 i.e. 600:50.
>>
>>If you do find instructions on making the balun please let me know. I
>>use my B&W BWD-90 daily and it does the job I want it to do. I need
>>broad band instant QSY for my radio.
>>
>>Dave WD9BDZ
>>
>>
>>py8elo wrote:
>>
>>Hi Dave,
>>I believe the resistor should not be inductive and it should have at
>>least 30% of the transmission power therefore, for 1500 Watts it
>>should
>>be of at least 500 Watts.
>>I build the balun for this antenna (andthe antenna) but I believe in
>>your country is not difficult to acquire it.
>>I hope it can help you.
>>VY 73ï¿½s,
>>Silva.
>>PY8ELO
>>
>>Dave Wrote:
>>
>>I'd like to build a replica of the B&W 65 or 90 folded dipole antenna.
>>
>>I know that there are a lot of arguments against this type of antenna
>>but for the convienience, I would like to have one anyway.
>>
>>$220 - $250 seems a bit steep to buy one.
>>
>>I have read L.B. Cebik's article on Terminated Wideband Dipoles,
>>http://www.cebik.com/wbfd.html but have been unable to find a source
>>for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>>
>>The only resistors of that value and wattage I have found are
>>wirewounds which I assume are not suitable because they are inductive.
>>
>>For an antenna to handle legal limit 1500 watts is it necessary for
>>the terminating resistor to be 1500 watts? It seems to me that you
>>would hope that the majority of the power would be dissappated by the
>>wire and not the resistor.
>>
>>Does anyone know where I can find a plan for the balun (or a resonably
>>priced commercially made one)? How about the resistor?

>>
>>Thanks,
>>
>>Dave
>>
>>
>>
>>
>>
>>
>
>
>
Thanks for the information. Who makes the resistor. Can they export to
the USA?

Dave WD9BDZ

3714. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 04:40:38 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11oah2eq48tqjef@corp.supernews.com>
Source record: 67511

Iitoi wrote:

> Michael Coslo Wrote:
>
>>Turns out that different frequencies travel at different speeds down the
>>cable. Good cables have special formulations of wire that compensate for
>>this.
>>
>
>
> You can increase the velocity factor (and shorten the antenna) by using
> a good grade of Carnuba automobile wax to make the antenna slipperyer,
> which (because of skin effect) allows the signal to accelerate faster.
>
> The Man in the Maze
> QRV from Baboquivari Peak, AZ
>
>
Yah but it makes receiving signals harder because the incoming radio
waves find it hard to stick to the antenna. They slip off in the wind.

3715. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 13:31:20 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <oOSdnX0VYYLUXRjeRVn-qA@bright.net>
Source record: 67512

I do have a a small tin of that "antenna wax" around somewhere. Maybe I should dig it up and put it on ebay ;)

Scott

Iitoi wrote:
> Michael Coslo Wrote:
>
>>Turns out that different frequencies travel at different speeds down the
>>cable. Good cables have special formulations of wire that compensate for
>>this.
>>
>
>
> You can increase the velocity factor (and shorten the antenna) by using
> a good grade of Carnuba automobile wax to make the antenna slipperyer,
> which (because of skin effect) allows the signal to accelerate faster.
>
> The Man in the Maze
> QRV from Baboquivari Peak, AZ
>
>

3716. Wtd Windom 80 special

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 14:25:29 UTC
From: gm4jnw <gm4jnw@gmail.com>
Message-ID: <BFAB7DD9.23E3%gm4jnw@gmail.com>
Source record: 67513

As above please email with price.

Located in Cumbria - Thanks

3717. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 16:48:24 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <s9mhf.1579$A23.1259@newsread2.news.pas.earthlink.net>
Source record: 67514

Michael Coslo wrote:
> Slightly OT, but kinda fun anyhow.....
>
> I'd been trying to locate a reasonably priced USB cable over the weekend
> It seems that you often pay as much for the cable as you fo for the
> device you are connecting to the computer.
>
> Has stereo voodoo physics entered the computer realm?
>
> Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
> could, (20 bucks) and made the mistake of mentioning something to the
> salesman about the funny claims on the packages. Big mistake, I had
> blasphemed his religion. In the next couple minutes I learned that:
>
> Turns out that different frequencies travel at different speeds down the
> cable. Good cables have special formulations of wire that compensate for
> this.
>
> Everybody knows that!
>
> He didn't know what velocity factor was, but let me know that he had
> taken physics classes, so he knew what he was talking about.
>
> So why have u antenna gurus been misleading us?!
>
>
> Now that my eyes have been opened I understand....
>
> Looking at an antenna, it becomes obvious that the lower the
> frequency, the slower the signal moves. The extra length of the antenna
> allows the RF to accellerate enough so that when it reached the end of
> the antenna, it has enough velocity to shoot out and not float straight
> up. Those really high frequencies are zipping by so fast that they
> hardly need any wire to get to TOSP (Take-off speed)
>
> Wow, I have reached true enlightenment.............

Funny that you brought this up today, Mike. I happened to hit my local
RadShack yesterday in search of a Cinch-Jones power connector. I told
the salesman what I was looking for, an 8-pin Jones plug/socket set. He
asked if I was looking for a microphone connector. I explained what the
Jones plugs looked like and told him that they used to be standard fare
in at Radio Shack and that they stocked them in 2, 4 and 8 pin
varieties. He told me that he'd never seen nor heard of them.

I told him that I could likely use a strip of the European-style nylon electrical connectors with screw terminals. He'd never heard of those and said RadShack didn't stock them. I walked to a different section of the store and pulled two of them off the rack.

I've gotten into several heated discussions with audio weenies over oxygen-free cable, gold-plated connectors, carbon vs. metal film resistors and mylar vs. paper capacitors. All of these guys swore up and down that they could hear a difference in one item vs. the other. I've offered to set up blind tests to see if they could, but none would ever take me up on the offer.

Dave K8MN

3718. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 16:53:14 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <_dmhf.1581$A23.1089@newsread2.news.pas.earthlink.net>
Source record: 67515

Michael Coslo wrote:
> Slightly OT, but kinda fun anyhow.....
>
> I'd been trying to locate a reasonably priced USB cable over the weekend
> It seems that you often pay as much for the cable as you fo for the
> device you are connecting to the computer.
>
> Has stereo voodoo physics entered the computer realm?
>
> Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
> could, (20 bucks)...

BTW, Mike, Big Lots, Value City and WalMart usually have a variety of
USB cables from $4.99 to $7.99.

Dave K8MN

3719. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 17:16:53 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9Amhf.24745$Zv5.22006@newssvr25.news.prodigy.net>
Source record: 67516

Dave Heil wrote:
> I told
> the salesman what I was looking for, an 8-pin Jones plug/socket set.

I made the mistake at RS of asking for a Molex connector.
--
73, Cecil http://www.qsl.net/w5dxp

3720. Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 18:25:21 UTC
From: Paul Taylor <pault_rem_.ngea@virgin.net>
Message-ID: <pan.2005.11.24.18.25.20.956624@virgin.net>
Source record: 67517

Hi,

I am looking for an explanation of how an antenna receives a signal due to the E-field of an electromagnetic wave.

I have looked in some books, and can understand transmission, but the books I have looked in don't explain reception.

I have found an explanation of how the H-field induces a signal in a loop antenna: a changing magnetic flux will induce a current.

But what about the E-field and a dipole antenna? I guess that the E-field causes electrons to move in the antenna wire, because in a solid conductor, electrons will move until the E-field inside the solid is cancelled out?

I have googled but having difficulty finding a good explanation. Any pointers?

Thanks & regards,

Paul.

--
Remove _rem_ before replying by email.

3721. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 18:47:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dm51r8$lt7$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67518

"Paul Taylor" <pault_rem_.ngea@virgin.net> wrote in message
news:pan.2005.11.24.18.25.20.956624@virgin.net...
> Hi,
>
> I am looking for an explanation of how an antenna receives a signal
due
> to the E-field of an electromagnetic wave.
>
> I have looked in some books, and can understand transmission, but
the
> books I have looked in don't explain reception.
>
> I have found an explanation of how the H-field induces a signal in a
loop
> antenna: a changing magnetic flux will induce a current.
>
> But what about the E-field and a dipole antenna? I guess that the
E-field
> causes electrons to move in the antenna wire, because in a solid
> conductor, electrons will move until the E-field inside the solid is
> cancelled out?
>
> I have googled but having difficulty finding a good explanation.

==========

It is impossible for an E-field to exist without an H-field.

Therefore, antennas of all sorts receive signals in the same way as a
simple loop. Calculations can begin using either the E-field or the
H-field but they both give the same answer.

Reg.

3722. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 18:57:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dm52egnbs1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67519

> >
> > I'd been trying to locate a reasonably priced USB cable over the
weekend
> > It seems that you often pay as much for the cable as you fo for
the
> > device you are connecting to the computer.
> >
==========

It's quite legal for traders to charge whatever price they think the
buyer can afford.

On the other hand, it is also quite legal for the buyer to haggle
about it. It's entirely up to you if you are unhappy.

Reg.

3723. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 19:49:57 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <z5SdnRRm7fbFhBveRVn-sQ@web-ster.com>
Source record: 67520

Paul Taylor wrote:
> Hi,
>
> I am looking for an explanation of how an antenna receives a signal due
> to the E-field of an electromagnetic wave.
>
> I have looked in some books, and can understand transmission, but the
> books I have looked in don't explain reception.
>
> I have found an explanation of how the H-field induces a signal in a loop
> antenna: a changing magnetic flux will induce a current.
>
> But what about the E-field and a dipole antenna? I guess that the E-field
> causes electrons to move in the antenna wire, because in a solid
> conductor, electrons will move until the E-field inside the solid is
> cancelled out?
>
> I have googled but having difficulty finding a good explanation. Any
> pointers?
>
> Thanks & regards,
>
> Paul.
>
Transmission and reception work essentially the same way -- if an
antenna induces a certain field pattern in space, then that same field
pattern will induce the same voltages going the other way.

Most books spend about that much space telling you about the principal,
then use the rest of the time telling you how antennas transmit, leaving
it to you to figure out how they receive.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3724. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 20:27:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <8nphf.18266$BZ5.14736@newssvr13.news.prodigy.com>
Source record: 67521

Paul Taylor wrote:
> I have looked in some books, and can understand transmission, but the
> books I have looked in don't explain reception.

This is another example of quantum physics being easier
to understand than Maxwell's equations. RF photons are
absorbed by free electrons in the copper antenna causing
RF currents to flow in the antenna wire.
--
73, Cecil http://www.qsl.net/w5dxp

3725. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 20:57:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dm59ge$md0$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67522

"Cecil Moore" wrote
> This is another example of quantum physics being easier
> to understand than Maxwell's equations. RF photons are
> absorbed by free electrons in the copper antenna causing
> RF currents to flow in the antenna wire.
==

So how does a dielectric antenna work?

Reg.

3726. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 21:29:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0hqhf.23531$q%.14128@newssvr12.news.prodigy.com>
Source record: 67524

Reg Edwards wrote:
> So how does a dielectric antenna work?

I'm not sure since I don't find it in any of my
references including ARRL, Kraus, Balanis, and
the IEEE Dictionary. Is it a waveguide where the
inside air is replaced by a dielectric?
--
73, Cecil http://www.qsl.net/w5dxp

3727. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 21:34:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <plqhf.23533$q%.18455@newssvr12.news.prodigy.com>
Source record: 67525

Michael wrote:
> From my son's perspective, a teacher must really know something to be a
> teacher. Sadly, this is far from true.

When I was student-teaching in the early 60's, the regular
physics teacher told his students that transistors were
made out of geranium. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3728. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 23:18:26 UTC
From: Phil Wheeler <w6tuh-ng4@yahoo.com>
Message-ID: <6Trhf.46856$Hs.45544@tornado.socal.rr.com>
Source record: 67426

Michael wrote:
> My son took and electronics course at Benson High School in Portland Oregon.
> The teacher was totally clueless and just made things up as he went along.

Ah yes. I attended Bensen Tech (so it was called then) in the Fall of
1953. We were taught to check light sockets for electricity be removing
the bulb and putting our fingers in them. Harmless fun :-)

3729. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-24 23:53:47 UTC
From: USB_Cable_Dude <USB@nospam.com>
Message-ID: <4386528A.19A3CD1D@nospam.com>
Source record: 67427

Home Depot, GE brand $ 9.99 6 foot,
also other pc accessories under $ 10.00

usb dude

Michael Coslo wrote:

> Slightly OT, but kinda fun anyhow.....
>
> I'd been trying to locate a reasonably priced USB cable over the weekend
> It seems that you often pay as much for the cable as you fo for the
> device you are connecting to the computer.
>
> Has stereo voodoo physics entered the computer realm?
>
> Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
> could, (20 bucks) and made the mistake of mentioning something to the
> salesman about the funny claims on the packages. Big mistake, I had
> blasphemed his religion. In the next couple minutes I learned that:
>
> Turns out that different frequencies travel at different speeds down the
> cable. Good cables have special formulations of wire that compensate for
> this.
>
> Everybody knows that!
>
> He didn't know what velocity factor was, but let me know that he had
> taken physics classes, so he knew what he was talking about.
>
> So why have u antenna gurus been misleading us?!
>
> Now that my eyes have been opened I understand....
>
> Looking at an antenna, it becomes obvious that the lower the frequency,
> the slower the signal moves. The extra length of the antenna allows the
> RF to accellerate enough so that when it reached the end of the antenna,
> it has enough velocity to shoot out and not float straight up. Those
> really high frequencies are zipping by so fast that they hardly need any
> wire to get to TOSP (Take-off speed)
>
> Wow, I have reached true enlightenment.............
>
> - Mike KB3EIA -

3730. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 00:20:09 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ZMshf.17488$D13.13207@newssvr11.news.prodigy.com>
Source record: 67428

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> So how does a dielectric antenna work?
>
>
> I'm not sure since I don't find it in any of my
> references including ARRL, Kraus, Balanis, and
> the IEEE Dictionary. Is it a waveguide where the
> inside air is replaced by a dielectric?

In the third edition of the _Antenna Engineering Handbook_ there is an article on surface-wave antennas which includes dielectric antennas starting on page 12-8.
73,
Tom Donaly, KA6RUH

3731. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 00:46:34 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43865eea$0$32203$39cecf19@news.twtelecom.net>
Source record: 67429

Owen Duffy wrote:

> On 23 Nov 2005 20:29:37 GMT, Allodoxaphobia <bit-bucket@config.com>
> wrote:
>
>
>
>>Too much ruckus has been focused on the 'No Code License' issue.
>>The ruckus should, instead, be focused on the 'No Clue License'.
>
>
> I never mentioned the no-code licence... we got over that over a year
> ago down under.
>
> I suggest it is not a matter of the no-clue licence, but the no-clue
> licensee, who could be licensed in any grade.
>
> Owen
> (Spelling correct for country of origin!)
> --

Correct. I have personally met more extras without a clue than
generals, and that's not percentage-wise. Your personal mileage may
vary, but a lot of extras seem to be really code oriented or contest
oriented, and did nothing but memorize the technical questions answers
(US) to pass.

I do not maean to disparage anyone who got their license by legitimate
means.

Wasn't there a scandal around that sort of thing a while ago. The name
West comes to mind, but I truthfully don't remember anything more than that.

tom
K0TAR

3732. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 01:01:57 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43866294$0$3756$39cecf19@news.twtelecom.net>
Source record: 67431

Dave Heil wrote:

> Michael Coslo wrote:
>
>> Slightly OT, but kinda fun anyhow.....
>>
>> I'd been trying to locate a reasonably priced USB cable over the
>> weekend It seems that you often pay as much for the cable as you fo
>> for the device you are connecting to the computer.
>>
>> Has stereo voodoo physics entered the computer realm?
>>
>> Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
>> could, (20 bucks) and made the mistake of mentioning something to the
>> salesman about the funny claims on the packages. Big mistake, I had
>> blasphemed his religion. In the next couple minutes I learned that:
>>
>> Turns out that different frequencies travel at different speeds down
>> the cable. Good cables have special formulations of wire that
>> compensate for this.
>>
>> Everybody knows that!
>>
>> He didn't know what velocity factor was, but let me know that he
>> had taken physics classes, so he knew what he was talking about.
>>
>> So why have u antenna gurus been misleading us?!
>>
>>
>> Now that my eyes have been opened I understand....
>>
>> Looking at an antenna, it becomes obvious that the lower the
>> frequency, the slower the signal moves. The extra length of the
>> antenna allows the RF to accellerate enough so that when it reached
>> the end of the antenna, it has enough velocity to shoot out and not
>> float straight up. Those really high frequencies are zipping by so
>> fast that they hardly need any wire to get to TOSP (Take-off speed)
>>
>> Wow, I have reached true enlightenment.............
>
>
> Funny that you brought this up today, Mike. I happened to hit my local
> RadShack yesterday in search of a Cinch-Jones power connector. I told
> the salesman what I was looking for, an 8-pin Jones plug/socket set. He

> asked if I was looking for a microphone connector. I explained what the
> Jones plugs looked like and told him that they used to be standard fare
> in at Radio Shack and that they stocked them in 2, 4 and 8 pin
> varieties. He told me that he'd never seen nor heard of them.
>
> I told him that I could likely use a strip of the European-style nylon
> electrical connectors with screw terminals. He'd never heard of those
> and said RadShack didn't stock them. I walked to a different section of
> the store and pulled two of them off the rack.
>
> I've gotten into several heated discussions with audio weenies over
> oxygen-free cable, gold-plated connectors, carbon vs. metal film
> resistors and mylar vs. paper capacitors. All of these guys swore up
> and down that they could hear a difference in one item vs. the other.
> I've offered to set up blind tests to see if they could, but none would
> ever take me up on the offer.
>
> Dave K8MN
>

My old roommate and I used to build biamped, pink noise equalized systems for the bars in the northern NY area in the late 70's early 80's. All Altec speakers with homemade Altec cabinet designs per their white papers.

There was a speaker comparison being done at a local place by a company I don't remember which was promoting a new whizbang super speaker. It had some new tweeter assembly. They had a blind test with 3 speakers behind an audio transparent curtain. They said their's was there, a Kenwood set was there, and an Altec set was there.

We said (order presented) #1 was Kenwood, #2 Altec, #3 crap. #2 by far the best. They said we nailed it brand wise, and were not happy with us otherwise.

Happened more than once, too. A lot of nonsense was happening then, like flame tweeters and other junk.

And from what I've seen, nothing has changed, Bose is still selling millions of dollars of crap.

tom
K0TAR

3733. Re: Wtd Windom 80 special

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 01:04:11 UTC
From: Andy <NoSpam@ntlworld.com>
Message-ID: <fqthf.459$Lf4.234@newsfe7-win.ntli.net>
Source record: 67430

You can normally find them on e-bay for around 30 to 40 UK pounds worth a look.

"gm4jnw" <gm4jnw@gmail.com> wrote in message news:BFAB7DD9.23E3%gm4jnw@gmail.com...
> As above please email with price.
>
> Located in Cumbria - Thanks
>

3734. Re: Happy Thanksgiving

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 01:06:42 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <438663b1$0$3759$39cecf19@news.twtelecom.net>
Source record: 67432

Fred W4JLE wrote:

> A happy Thanksgiving to all... May your day be a joyous one with friends and
> family.
>
> 73 Fred W4JLE / NNN0AAG
>
>

Mmmmmmmmm, Turducken....

tom
K0TAR

3735. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 01:18:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <zDthf.24069$dO2.22041@newssvr29.news.prodigy.net>
Source record: 67433

Tom Donaly wrote:
> In the third edition of the _Antenna Engineering
> Handbook_ there is an article on surface-wave antennas
> which includes dielectric antennas starting on page
> 12-8.

I'll take a look the next time I'm over at Texas A&M.
In a nutshell, where does the radiation come from?
--
73, Cecil http://www.qsl.net/w5dxp

3736. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 02:17:44 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <CaydnbnneYDV6RveRVn-jg@adelphia.com>
Source record: 67434

Reg Edwards wrote:
>>>I'd been trying to locate a reasonably priced USB cable over the
>
> weekend
>
>>>It seems that you often pay as much for the cable as you fo for
>
> the
>
>>>device you are connecting to the computer.
>>>
>
> ====================================
>
> It's quite legal for traders to charge whatever price they think the
> buyer can afford.

Of course. And entirely up to me if I go into the store again.

> On the other hand, it is also quite legal for the buyer to haggle
> about it. It's entirely up to you if you are unhappy.

I'm trying to guage the reaction from the RS folks if I haggled over
the price!

My main point wasn't the price anyhoo, but the snake oil science used
to sell the "superior" cables. RS has no monopoly on that.

I've had trouble in the past with cables. Once with a too long SCSI
cable. But that was just a velocity vs timing, and a cheap-o video cable
that didn't have good shielding.

But those things make sense, not exotic wire formulations that speed up
or slow down certain frequencies.....

- Mike KB3EIA -

3737. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 02:20:00 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <CaydnbjneYBS6RveRVn-jg@adelphia.com>
Source record: 67435

Michael wrote:
> My son took and electronics course at Benson High School in Portland Oregon.
> The teacher was totally clueless and just made things up as he went along.
> One of them was that the higher the voltage on a wire, the faster it travels
> in the wire. It took me all day to make my son believe that his teacher was
> just a clueless sot and to understand ohms law. From my son's perspective, a
> teacher must really know something to be a teacher. Sadly, this is far from
> true.

This is why there is a market for some pretty bizzare antennas out there!

> The good news was that I was forced to take a more active part in his
> education about electronics. We built and tested projects together and it
> was good for both of us.

There ya go!

- Mike KB3EIA -

3738. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 02:39:24 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ufadnc4T8tHB5BveRVn-iA@adelphia.com>
Source record: 67436

Dave Heil wrote:
> Michael Coslo wrote:
>
>> Slightly OT, but kinda fun anyhow.....
>>
>> I'd been trying to locate a reasonably priced USB cable over the
>> weekend It seems that you often pay as much for the cable as you fo
>> for the device you are connecting to the computer.
>>
>> Has stereo voodoo physics entered the computer realm?
>>
>> Anyhow, I ended up in a Radio Shack store, found the cheapest cable I
>> could, (20 bucks) and made the mistake of mentioning something to the
>> salesman about the funny claims on the packages. Big mistake, I had
>> blasphemed his religion. In the next couple minutes I learned that:
>>
>> Turns out that different frequencies travel at different speeds down
>> the cable. Good cables have special formulations of wire that
>> compensate for this.
>>
>> Everybody knows that!
>>
>> He didn't know what velocity factor was, but let me know that he
>> had taken physics classes, so he knew what he was talking about.
>>
>> So why have u antenna gurus been misleading us?!
>>
>>
>> Now that my eyes have been opened I understand....
>>
>> Looking at an antenna, it becomes obvious that the lower the
>> frequency, the slower the signal moves. The extra length of the
>> antenna allows the RF to accellerate enough so that when it reached
>> the end of the antenna, it has enough velocity to shoot out and not
>> float straight up. Those really high frequencies are zipping by so
>> fast that they hardly need any wire to get to TOSP (Take-off speed)
>>
>> Wow, I have reached true enlightenment.............
>
>
> Funny that you brought this up today, Mike. I happened to hit my local
> RadShack yesterday in search of a Cinch-Jones power connector. I told
> the salesman what I was looking for, an 8-pin Jones plug/socket set. He
> asked if I was looking for a microphone connector. I explained what the

> Jones plugs looked like and told him that they used to be standard fare
> in at Radio Shack and that they stocked them in 2, 4 and 8 pin
> varieties. He told me that he'd never seen nor heard of them.
>
> I told him that I could likely use a strip of the European-style nylon
> electrical connectors with screw terminals. He'd never heard of those
> and said RadShack didn't stock them. I walked to a different section of
> the store and pulled two of them off the rack.

Sigh.... and then a few months later RS pulls the parts because "no one
is buying this stuff", and puts up more cell phone posters....

All because some doofus doesn't know inventory. 8^(

I don't want to diss my local shack too much tho'. They are the nearest
one to the local University, and they keep a pretty fair stock. Probably
because the Electro-geek level is a little higher than some other
places.I shop there when possible to help keep it going.

> I've gotten into several heated discussions with audio weenies over
> oxygen-free cable, gold-plated connectors, carbon vs. metal film
> resistors and mylar vs. paper capacitors. All of these guys swore up
> and down that they could hear a difference in one item vs. the other.
> I've offered to set up blind tests to see if they could, but none would
> ever take me up on the offer.

It's just like testing ESP, or spoon bending. Something in the testing
process just changes something. You might ask those weenies if they have
any of those rocks that you are supposed to place someplace or another
to make the sound better.

- Mike KB3EIA -

3739. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 02:42:23 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ufadnckT8tGT5xveRVn-iA@adelphia.com>
Source record: 67437

Iitoi wrote:
> Michael Coslo Wrote:
>
>>Turns out that different frequencies travel at different speeds down the
>>cable. Good cables have special formulations of wire that compensate for
>>this.
>>
>
>
> You can increase the velocity factor (and shorten the antenna) by using
> a good grade of Carnuba automobile wax to make the antenna slipperyer,
> which (because of skin effect) allows the signal to accelerate faster.

If you want a multiband, should you only wax portions of it?

- Mike KB3EIA -

3740. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 05:09:59 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <H0xhf.931$Hk1.603@newsread1.news.pas.earthlink.net>
Source record: 67438

Cecil Moore wrote:
> Dave Heil wrote:
>> I told the salesman what I was looking for, an 8-pin Jones plug/socket
>> set.
>
> I made the mistake at RS of asking for a Molex connector.

They actually have a few of 'em, Cecil. Our area stores keep them in
metal drawers now rather than hanging them on the wall.

Dave K8MN

3741. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 05:11:03 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_4386861f@fidonet.org>
Source record: 67439

"Cecil Moore" bravely wrote to "All" (24 Nov 05 17:16:53)
--- on the heady topic of "Re: Radio Shack and my education"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:220329

CM> Dave Heil wrote:
> I told
> the salesman what I was looking for, an 8-pin Jones plug/socket set.

CM> I made the mistake at RS of asking for a Molex connector.

But I'll bet they could have found you a Molex/RCA adapter! ;-)

A*s*i*m*o*v

... Sho-ping. Martial art using technique of kew-pon.

3742. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 05:11:05 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43868d8f@fidonet.org>
Source record: 67440

"Tim Wescott" bravely wrote to "All" (24 Nov 05 11:49:57)
--- on the heady topic of "Re: Antenna reception theory"

TW> From: Tim Wescott <tim@seemywebsite.com>
TW> Xref: core-easynews rec.radio.amateur.antenna:220333

TW> Paul Taylor wrote:
> Hi,
>
> I am looking for an explanation of how an antenna receives a signal due
> to the E-field of an electromagnetic wave.
>
TW> Transmission and reception work essentially the same way -- if an
TW> antenna induces a certain field pattern in space, then that same field
TW> pattern will induce the same voltages going the other way.

TW> Most books spend about that much space telling you about the
TW> principal, then use the rest of the time telling you how antennas
TW> transmit, leaving it to you to figure out how they receive.

For antenna to receive it must also transmit part of the signal it
intercepts. Now that confuses this discussion a little more, doesn't
it?!

A*s*i*m*o*v

... I like the word `indolence.' It makes my laziness seem classy.

3743. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 05:26:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wgxhf.17527$D13.941@newssvr11.news.prodigy.com>
Source record: 67441

Dave Heil wrote:
> Cecil Moore wrote:
>> I made the mistake at RS of asking for a Molex connector.
>
> They actually have a few of 'em, Cecil. Our area stores keep them in
> metal drawers now rather than hanging them on the wall.

Oh, they had them hanging on the wall but said they didn't
have any. When I found them, they asked, "How do you know
that's a Molex connector?" :-)

Adopted from the IC-22S 30 years ago, I still use the 4-pin
version for low current 12 volt power in my shack and in my
pickup.
--
73, Cecil http://www.qsl.net/w5dxp

3744. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 08:46:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11odjs54affpl83@corp.supernews.com>
Source record: 67442

Most authors explain how a wave is generated, then resort to reciprocity to explain the reception process. But a clear and simple direct explanation appears in Bailey, _TV and Other Receiving Antennas_ (pp. 141-2), of what happens when an electromagnetic wave strikes a conductor:

"The second, and equally important effect [the first being reflection of much of the incident energy] is that some energy /does/ enter the outer skin of the conductor. That part of the energy, which is not reflected, must enter the conductor. The conditions at the surface of the conductor, as we have already seen, give rise to a small resultant electric vector and a large resultant magnetic vector. The presence of these at the conductor is direct evidence that power is entering the conductor. The small electric vector acts on the internal electrons of the conductor and impresses a direction force, tending to drive the electrons along the skin of the conductor in the direction of the electric vector. But from experience we know that /no/ electrons can ever be caused to move without gradually establishing their own magnetic field, and this usually takes /time/. The motion of electrons (which is electric current by definition) never takes place without the magnetic field. How, then, is the electric vector from the electromagnetic wave going to put these electrons in motion? It can only do so because the electromagnetic wave /also supplies a magnetic vector/ as well as an electric vector. And the value of this magnetic vector is exactly proportioned to supply just the right amount of magnetic field energy which the electrons require for immediate motion. Thus the electrons do not have to establish their own magnetic field, since this field is supplied by the electromagnetic wave. Hence, electromagnetic wave energy entering the conductor establishes immediate motion of electrons /along/ the conductor, the direction of motion at any instant corresponding to the direction of the electric vector. If the electric vector changes direction, the electrons will follow suit."

Other posters have correctly pointed out that an antenna doesn't and can't receive a signal solely due to the E field; a time-changing E field can't exist without an accompanying time-changing H field.

Roy Lewallen, W7EL

Paul Taylor wrote:
> Hi,
>
> I am looking for an explanation of how an antenna receives a signal due
> to the E-field of an electromagnetic wave.
>
> I have looked in some books, and can understand transmission, but the

> books I have looked in don't explain reception.
>
> I have found an explanation of how the H-field induces a signal in a loop
> antenna: a changing magnetic flux will induce a current.
>
> But what about the E-field and a dipole antenna? I guess that the E-field
> causes electrons to move in the antenna wire, because in a solid
> conductor, electrons will move until the E-field inside the solid is
> cancelled out?
>
> I have googled but having difficulty finding a good explanation. Any
> pointers?
>
> Thanks & regards,
>
> Paul.
>

3745. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 12:57:42 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <OICdndI0GprwlxrenZ2dnUVZ_v2dnZ2d@comcast.com>
Source record: 67443

Cecil Moore wrote:
> Michael wrote:
>
>> From my son's perspective, a teacher must really know something to be a
>
> > teacher. Sadly, this is far from true.
>
> When I was student-teaching in the early 60's, the regular
> physics teacher told his students that transistors were
> made out of geranium. :-)

Everybody knows they are made out of humurous ex-convicts [silly-con].

But, in the 60s I was production engineer making 'geranium' transistors.

3746. Re: Plans for B&W BWD-65 & BWD-90 Folded Dipole Balun & Terminating Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 13:59:02 UTC
From: py8elo <py8elo.1z265a@news.radiobanter.com>
Message-ID: <py8elo.1z265a@news.radiobanter.com>
Source record: 67445

Hi Dave,
I believe they can export...
Mail to export@eletele.com.br... Or visit they english page at
http://www.eletele.com.br/English.htm ...
They can make any value and any power from 10W up 1000W...
Best 73's,
Silva PY8ELO.

David G. Nagel Wrote:
> py8elo wrote:
> Hi Dave,
> The resistor is manufactured right here under indent in Brazil,
> the balun I build for myself using 8 ferrite beads in material 43 OD
> =
> 15mm ID = 8mm...
> with each 4 of them I make a tube gluing them and soon after I glue
> the
> two tubes forming a binocular core. In it I wind two turns of 16AWG
> wire
> and a bifilar wound of 4 turns done with the same wire on the first 2
> turns...Of this wound, I joint the begins of a wire in order to the
> end
> of the other wire, placing them in against-phase...The extremities
> that
> remain will be the high impedance (about 800 Ohms) out to the
> antenna,
> them points that were united will join to one of the points of the
> first wound, which will go to the GND and the point that it remains
> of
> the first wound will be the inner of the 50 Ohms coax connector
> (SO239)... But, it is for low power power... For 1500 Watts you
> should
> find the core and the appropriate wire...
> I hope it can help you...
> Best 73's,
> Silva.
> PY8ELO
> David G. Nagel Wrote:
>
> Silva;
>
> No reason why your plan should not work. It might require differend

> spacing but that is what amateur radios if for: experimentation.
> I will give it a try. Where did you get your balun or how did you make
> it? Is there a web page showing how?
>
> Dave WD9BDZ
>
>
> py8elo wrote:
>
> Hi Dave,
> I use a 1K Ohms resistor and a 16:1 balun. But you can use a 600 Ohms
> resistor an a 12:1 balun.
> I hope it can help you.
> Best 73's,
> Silva PY8ELO.
>
> David G. Nagel Wrote:
>
> Dave;
>
> The only source of resistors and baluns that I have found suitable for
> making a B&W antenna is B&W. The terminating resistor is 600 ohms
> non-inductive i.e. carbon. The balun is 12 to 1 i.e. 600:50.
>
> If you do find instructions on making the balun please let me know. I
> use my B&W BWD-90 daily and it does the job I want it to do. I need
> broad band instant QSY for my radio.
>
> Dave WD9BDZ
>
>
> py8elo wrote:
>
> Hi Dave,
> I believe the resistor should not be inductive and it should have at
> least 30% of the transmission power therefore, for 1500 Watts it
> should
> be of at least 500 Watts.
> I build the balun for this antenna (andthe antenna) but I believe in
> your country is not difficult to acquire it.
> I hope it can help you.
> VY 73's,
> Silva.
> PY8ELO
>
> Dave Wrote:
>
> I'd like to build a replica of the B&W 65 or 90 folded dipole antenna.
>

> I know that there are a lot of arguments against this type of antenna
> but for the convienience, I would like to have one anyway.
>
> $220 - $250 seems a bit steep to buy one.
>
> I have read L.B. Cebik's article on Terminated Wideband Dipoles,
> http://www.cebik.com/wbfd.html but have been unable to find a source
> for the 800-900 ohm resistor or plans for a suitable 16:1 balun.
>
> The only resistors of that value and wattage I have found are
> wirewounds which I assume are not suitable because they are inductive.
>
> For an antenna to handle legal limit 1500 watts is it necessary for
> the terminating resistor to be 1500 watts? It seems to me that you
> would hope that the majority of the power would be dissappated by the
> wire and not the resistor.
>
> Does anyone know where I can find a plan for the balun (or a resonably
> priced commercially made one)? How about the resistor?
>
> Thanks,
>
> Dave
>
>
>
>
>
>
>
>
>
> Thanks for the information. Who makes the resistor. Can they export
> to
> the USA?
>
> Dave WD9BDZ

--
py8elo

3747. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 14:52:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <fzFhf.20596$7h7.20438@newssvr21.news.prodigy.com>
Source record: 67444

Michael wrote:
> My son took and electronics course ...

Michael, check your computer clock. Is it set
to PM instead of AM?
--
73, Cecil http://www.qsl.net/w5dxp

3748. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 16:11:28 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <438737BB.D753827A@shaw.ca>
Source record: 67446

Phil Wheeler wrote:
>
> Michael wrote:
> > My son took and electronics course at Benson High School in Portland Oregon.
> > The teacher was totally clueless and just made things up as he went along.
>
> Ah yes. I attended Bensen Tech (so it was called then) in the Fall of
> 1953. We were taught to check light sockets for electricity be removing
> the bulb and putting our fingers in them. Harmless fun :-)

I couldn't wait to be old enough to go to tech so I tried the light
socket test at home at age 7. Thus begun my lifetime love of communications
and electronics! The results of the experiments proved so valid that I never
again had the need to revalidate!

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3749. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 17:32:53 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11ocbjrd4j4ar74@corp.supernews.com>
Source record: 67523

My son took and electronics course at Benson High School in Portland Oregon. The teacher was totally clueless and just made things up as he went along. One of them was that the higher the voltage on a wire, the faster it travels in the wire. It took me all day to make my son believe that his teacher was just a clueless sot and to understand ohms law. From my son's perspective, a teacher must really know something to be a teacher. Sadly, this is far from true.

The good news was that I was forced to take a more active part in his education about electronics. We built and tested projects together and it was good for both of us.

3750. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 17:55:12 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11oek0b8to2mm42@corp.supernews.com>
Source record: 67447

It's interesting you mention that, Tom.

I just got my Extra last month. Now, I admit I am not an electronics expert. I had to study really hard before I felt I could take the test. What was funny was actually taking the test.

There were a total of six people testing. Myself and five others. Two going for Technician, two going for General, and two going for Extra (myself and one other guy I didn't know). So, I'm pounding away on the calculator and the other Extra finishes before anyone. He must have only taken ten minutes, if that. He had to of memorized the answers. Actually there were a total of three people who had to have memorized the questions. No way they could have finished so fast. Actually, I was the only one who brought a calculator, so that tells you something.

What was really interesting to me was that the other Extra had now passed all the writtens, but had never passed the 5 WPM code test. So, no HF priveleges until he does that.

I was licensed fifteen years ago and got up through Advanced and took the code tests. But I moved out of state and never got around to taking the Extra. Now, it's all changed and there are only three tests.

Anyway, interesting experience.

Rod KI7CQ

3751. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 18:10:47 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndoekt7.1pl6.bit-bucket@shell.config.com>
Source record: 67448

On Fri, 25 Nov 2005 16:11:28 GMT, Irv Finkleman wrote:
> Phil Wheeler wrote:
>> Michael wrote:
>> > My son took and electronics course at Benson High School in Portland Oregon.
>> > The teacher was totally clueless and just made things up as he went along.
>>
>> Ah yes. I attended Bensen Tech (so it was called then) in the Fall of
>> 1953. We were taught to check light sockets for electricity be removing
>> the bulb and putting our fingers in them. Harmless fun :-)
>
> I couldn't wait to be old enough to go to tech so I tried the light
> socket test at home at age 7. Thus begun my lifetime love of communications
> and electronics! The results of the experiments proved so valid that I never
> again had the need to revalidate!

I built my first light bulb at the age of 8 -- I used a test tube
from a chemistry set of mine and about 10" of bare copper wire that
I found in my dad's ham shack (the original W3DHJ). Hell, it sure
looked a lot like a light bulb! Then I poked it into the wall outlet
in my bedroom. BIG TIME mistake! I was an Army Brat and we were living
in conscripted housing in Bremerhaven, Germany at the time....
Thus began my lifetime love of of all things electronical.

(-: I suppose this OT thread should be in rec.radio.amateur.homebrew. :-)

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

3752. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 19:01:54 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <CcJhf.3465$aA2.2327@newsread2.news.atl.earthlink.net>
Source record: 67449

"Rod Maupin" <gridman@ywave.com> wrote in message
news:11oek0b8to2mm42@corp.supernews.com...
> It's interesting you mention that, Tom.
>
> I just got my Extra last month. Now, I admit I am not an electronics
> expert. I had to study really hard before I felt I could take the test.
> What was funny was actually taking the test.
>
> There were a total of six people testing. Myself and five others. Two
> going for Technician, two going for General, and two going for Extra
(myself
> and one other guy I didn't know). So, I'm pounding away on the calculator
> and the other Extra finishes before anyone. He must have only taken ten
> minutes, if that. He had to of memorized the answers. Actually there
were
> a total of three people who had to have memorized the questions. No way
> they could have finished so fast. Actually, I was the only one who
brought
> a calculator, so that tells you something.
>
> What was really interesting to me was that the other Extra had now passed
> all the writtens, but had never passed the 5 WPM code test. So, no HF
> priveleges until he does that.
>
> I was licensed fifteen years ago and got up through Advanced and took the
> code tests. But I moved out of state and never got around to taking the
> Extra. Now, it's all changed and there are only three tests.
>
> Anyway, interesting experience.
>
> Rod KI7CQ
>

Instead of studying electronics you should have been studying the qusetion
and answer book. When the questions are the same as in the book , it is no
use learning anything for a test.
I had the tech license for about 25 years. Just did not want to take time
for the code and did not care anything for the lowbands anyway. The job I
had gave me some free time on the night shift so I finally decided to take
in some code tapes and learn the code on company time. Went to Advanced and
about a year later the Extra. I never did get a chance to look at the Q&A
book. I did not need a calculator fo rthe tests. The answers are usualy
broad enough you can almost guess at them and a quick check with a pencil
and paper will do.

I have not seen the new Extra exam but the old one was very easy compaired to the old Advanced exam. By the way, in 1972 when I took the First Class Phone license there were no calculators or Q&A books with the exect Q&As.

3753. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 19:04:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <afJhf.20616$7h7.15873@newssvr21.news.prodigy.com>
Source record: 67450

Rod Maupin wrote:
> So, I'm pounding away on the calculator
> and the other Extra finishes before anyone. He must have only taken ten
> minutes, if that. He had to of memorized the answers.

Rod, I finished that trivial Extra exam in 10 minutes and
I can assure you, with a EE degree and MENSA membership,
I didn't memorize the answers.
--
73, Cecil http://www.qsl.net/w5dxp

3754. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 19:08:54 UTC
From: Paul Taylor <pault_rem_.ngea@virgin.net>
Message-ID: <pan.2005.11.25.19.08.53.850777@virgin.net>
Source record: 67451

Hi,

Thanks for the replies. I also found a sentence in Joseph Carr's
book, Practical Antenna Handbook second edition. On page 297: 'Large
loop antennas are sensitive primarily to the electric field
of the electromagnetic radio wave, but small loop antenna are primarily
sensitive to the magnetic field of an EM wave.'

I understand that the receiver antenna works in a reciprocal way to
transmit, but if there are other descriptions out there concentrating on
how antennas work at the receiving end, I would be interested to know.

Regards,

Paul.

--
Remove _rem_ before replying by email.

3755. Re: Happy Thanksgiving

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 19:24:42 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <2902a$438764ff$97d56a33$4854@ALLTEL.NET>
Source record: 67452

Exactly what we had for dinner... Turduken is the best eating there is!

"Tom Ring" <news0002@taring.org> wrote in message
news:438663b1$0$3759$39cecf19@news.twtelecom.net...
> Fred W4JLE wrote:
>
> > A happy Thanksgiving to all... May your day be a joyous one with friends
and
> > family.
> >
> > 73 Fred W4JLE / NNN0AAG
> >
> >
>
> Mmmmmmmmm, Turducken....
>
> tom
> K0TAR
>

3756. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 19:35:07 UTC
From: Phil Wheeler <w6tuh-ng4@yahoo.com>
Message-ID: <LHJhf.82958$QM5.78859@tornado.socal.rr.com>
Source record: 67453

Cecil Moore wrote:
> Rod Maupin wrote:
>
>> So, I'm pounding away on the calculator and the other Extra finishes
>> before anyone. He must have only taken ten minutes, if that. He had
>> to of memorized the answers.
>
>
> Rod, I finished that trivial Extra exam in 10 minutes and
> I can assure you, with a EE degree and MENSA membership,
> I didn't memorize the answers.

But it does happen. Back in the 20 WPM days, maybe ten years ago, one ham I know .. who was a former Navy telegraph op .. passed the written part by memorizing every Q&A. And it showed: He was a technical know-nothing. Nice guy, though.

Phil

3757. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 19:41:47 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11oeq7qtm6m523f@corp.supernews.com>
Source record: 67454

Well, that's impressive to me.

I didn't know anything about electronics until I became a ham. I still don't know much. I know how to set up a station and how to put out a clean signal. But I don't know enough to build anything. Which is a shame. Seems like there are a lot of fun projects out there.

Rod KI7CQ

3758. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 19:50:52 UTC
From: Phil Wheeler <w6tuh-ng4@yahoo.com>
Message-ID: <wWJhf.21563$2k6.16610@tornado.socal.rr.com>
Source record: 67455

Rod Maupin wrote:
> Well, that's impressive to me.
>
> I didn't know anything about electronics until I became a ham. I still
> don't know much. I know how to set up a station and how to put out a clean
> signal. But I don't know enough to build anything. Which is a shame.
> Seems like there are a lot of fun projects out there.
>
> Rod KI7CQ
>

There are. You should checkout the Elecraft website: Fun!

3759. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 21:20:55 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <H8OdnQhHjLT8HRreRVn-pA@comcast.com>
Source record: 67456

Allodoxaphobia wrote:

SNIPPED
>
>
> I built my first light bulb at the age of 8 -- I used a test tube
> from a chemistry set of mine and about 10" of bare copper wire that
> I found in my dad's ham shack (the original W3DHJ). Hell, it sure
> looked a lot like a light bulb! Then I poked it into the wall outlet
> in my bedroom. BIG TIME mistake! I was an Army Brat and we were living
> in conscripted housing in Bremerhaven, Germany at the time....
> Thus began my lifetime love of of all things electronical.
>
> (-: I suppose this OT thread should be in rec.radio.amateur.homebrew. :-)
>
> Jonesy

OR: rec.radio.amateur.need.insurance

3760. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-25 21:45:07 UTC
From: Phil Wheeler <w6tuh-ng4@yahoo.com>
Message-ID: <DBLhf.46898$Hs.28835@tornado.socal.rr.com>
Source record: 67457

Amos Keag wrote:
> Allodoxaphobia wrote:
>
> SNIPPED
>
>>
>>
>> I built my first light bulb at the age of 8 -- I used a test tube
>> from a chemistry set of mine and about 10" of bare copper wire that
>> I found in my dad's ham shack (the original W3DHJ). Hell, it sure
>> looked a lot like a light bulb! Then I poked it into the wall outlet
>> in my bedroom. BIG TIME mistake! I was an Army Brat and we were
>> living in conscripted housing in Bremerhaven, Germany at the time....
>> Thus began my lifetime love of of all things electronical.
>>
>> (-: I suppose this OT thread should be in rec.radio.amateur.homebrew.
>> :-)
>>
>> Jonesy
>
>
> OR: rec.radio.amateur.need.insurance
>

Funny!

Phil W7OX

3761. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 01:01:05 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <ltOhf.1217$Hk1.533@newsread1.news.pas.earthlink.net>
Source record: 67458

"Cecil Moore" <mycall@arrl.net> wrote in message
news:afJhf.20616$7h7.15873@newssvr21.news.prodigy.com...
> Rod Maupin wrote:
> > So, I'm pounding away on the calculator
> > and the other Extra finishes before anyone. He must have only taken ten
> > minutes, if that. He had to of memorized the answers.
>
> Rod, I finished that trivial Extra exam in 10 minutes and
> I can assure you, with a EE degree and MENSA membership,
> I didn't memorize the answers.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil, I'm glad you passed your Extra exam without difficulty.

But I have to point out that there are many exam questions not
covered in EE (e.g., band breaks and OSCAR schemes); and
NONE of the exam questions are covered in MENSA. Thus
at least some memory work is needed.

I have three EE degrees (and could readily "qualify" for MENSA);
but I nevertheless studied quite diligently for the Extra exam (2001).
I was gratified to get 100%, but I readily admit taking more than
10 minutes.

73, Ed, W6LOL

3762. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 02:08:17 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <SfqdnUKKdoMMXhrenZ2dnUVZ_s2dnZ2d@adelphia.com>
Source record: 67459

Ralph Mowery wrote:
> "Rod Maupin" <gridman@ywave.com> wrote in message
> news:11oek0b8to2mm42@corp.supernews.com...
>
>>It's interesting you mention that, Tom.
>>
>>I just got my Extra last month. Now, I admit I am not an electronics
>>expert. I had to study really hard before I felt I could take the test.
>>What was funny was actually taking the test.
>>
>>There were a total of six people testing. Myself and five others. Two
>>going for Technician, two going for General, and two going for Extra
>
> (myself
>
>>and one other guy I didn't know). So, I'm pounding away on the calculator
>>and the other Extra finishes before anyone. He must have only taken ten
>>minutes, if that. He had to of memorized the answers. Actually there
>
> were
>
>>a total of three people who had to have memorized the questions. No way
>>they could have finished so fast. Actually, I was the only one who
>
> brought
>
>>a calculator, so that tells you something.
>>
>>What was really interesting to me was that the other Extra had now passed
>>all the writtens, but had never passed the 5 WPM code test. So, no HF
>>priveleges until he does that.
>>
>>I was licensed fifteen years ago and got up through Advanced and took the
>>code tests. But I moved out of state and never got around to taking the
>>Extra. Now, it's all changed and there are only three tests.
>>
>>Anyway, interesting experience.
>>
>>Rod KI7CQ
>>
>
>
> Instead of studying electronics you should have been studying the qusetion
> and answer book. When the questions are the same as in the book , it is no

> use learning anything for a test.

Where do you get that, Ralph? That license isn't the final goal. It's
the beginning. If all a person wants to do is pass some test, I suppose
they could memorize Q and A. - although I might postulate that
memorizing over 800 questions for the Extra might be harder than simply
learning the material.

> I had the tech license for about 25 years. Just did not want to take time
> for the code and did not care anything for the lowbands anyway. The job I
> had gave me some free time on the night shift so I finally decided to take
> in some code tapes and learn the code on company time. Went to Advanced and
> about a year later the Extra. I never did get a chance to look at the Q&A
> book. I did not need a calculator fo rthe tests. The answers are usualy
> broad enough you can almost guess at them and a quick check with a pencil
> and paper will do.

You had 25 years of studying for the exams!

> I have not seen the new Extra exam but the old one was very easy compaired
> to the old Advanced exam. By the way, in 1972 when I took the First Class
> Phone license there were no calculators or Q&A books with the exect Q&As.

I keep hearing about the magical olde time Advanced Amateurs. I wish
they would get jobs at Radio Shack and straighten people out! ;^)

- 73 de Mike KB3EIA -

3763. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 02:10:56 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <SfqdnX2KdoOzWRrenZ2dnUVZ_s2dnZ2d@adelphia.com>
Source record: 67460

Cecil Moore wrote:
> Rod Maupin wrote:
>
>> So, I'm pounding away on the calculator and the other Extra finishes
>> before anyone. He must have only taken ten minutes, if that. He had
>> to of memorized the answers.
>
>
> Rod, I finished that trivial Extra exam in 10 minutes and
> I can assure you, with a EE degree and MENSA membership,
> I didn't memorize the answers.

Right! It is easy for some, and darn hard for others.

- 73 de Mike KB3EIA -

3764. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 02:43:08 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <0ZPhf.5587$wf.1166@newsread3.news.atl.earthlink.net>
Source record: 67461

> > Instead of studying electronics you should have been studying the
qusetion
> > and answer book. When the questions are the same as in the book , it is
no
> > use learning anything for a test.
>
> Where do you get that, Ralph? That license isn't the final goal. It's
> the beginning. If all a person wants to do is pass some test, I suppose
> they could memorize Q and A. - although I might postulate that
> memorizing over 800 questions for the Extra might be harder than simply
> learning the material.
>
>

Getting the license is the first goal. You have to memorize the rules to answer many of the questions. Might as well memorize the other parts too. You get your license and you can start to learn about ham radio. Sometimes the questions can be deceiving and what may be a correct answer may not be the "best" answer.

As far as getting good answers about most anything at RAdio Shack or many other stores , what do you expect from someone making the wages they pay ? You do not get a salesman and electronics engineer for those wages. Try going into any store, say Wal-Mart and pick out an area and ask some specific questions about the products and see what they have to say. Chances are you will get the same dumb look and maybe a dumb answer.

3765. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 03:40:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <bPQhf.33888$6e1.6858@newssvr14.news.prodigy.com>
Source record: 67462

Old Ed wrote:
> But I have to point out that there are many exam questions not
> covered in EE (e.g., band breaks and OSCAR schemes);

Dang, Ed, I just developed the OSCAR schemes from first
principles. ;-)
--
73, Cecil http://www.qsl.net/w5dxp

3766. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 04:34:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ofpe5kh28mk09@corp.supernews.com>
Source record: 67464

Ralph Mowery wrote:
> . . .
> As far as getting good answers about most anything at RAdio Shack or many
> other stores , what do you expect from someone making the wages they pay ?
> You do not get a salesman and electronics engineer for those wages. Try
> going into any store, say Wal-Mart and pick out an area and ask some
> specific questions about the products and see what they have to say.
> Chances are you will get the same dumb look and maybe a dumb answer.

One of the reasons this is the only choice we have is that in times past, there were stores which did pay the employees enough to get people who understood the products. People would go in, get their questions answered, then go to the Wal-Marts and Radio Shacks to buy the item because it was cheaper there. We've gotten what we created and what we collectively deserve.

Roy Lewallen, W7EL

3767. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 04:34:44 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11ofpdpioimdg06@corp.supernews.com>
Source record: 67463

This is getting a bit far from antennas, but the way to know the uncertainty
in knowing time is to have multiple clocks. NBS (whatever it now calls
itself) has a bunch of clocks that are compared to each other.
When I was young (and WWV was back East) the uncertainty indicated from
multiple clocks was a few parts in ten to the eighth power. Today, that
uncertainty is a few parts in ten to the 13th power! It takes multiple
clocks to know the uncertainty.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
news:dm2gb7$1f72$1@f04n12.cac.psu.edu...

<snip>
>
>
> A man with a watch knows the time.
>
> A man with two watches is never sure......
>
>
>
> - Mike KB3EIA -
>

3768. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 04:43:06 UTC
From: Phil Wheeler <w6tuh-ng4@yahoo.com>
Message-ID: <uJRhf.46915$Hs.26340@tornado.socal.rr.com>
Source record: 67465

Roy Lewallen wrote:
> Ralph Mowery wrote:
>
>> . . .
>> As far as getting good answers about most anything at RAdio Shack or many
>> other stores , what do you expect from someone making the wages they
>> pay ?
>> You do not get a salesman and electronics engineer for those wages. Try
>> going into any store, say Wal-Mart and pick out an area and ask some
>> specific questions about the products and see what they have to say.
>> Chances are you will get the same dumb look and maybe a dumb answer.
>
>
> One of the reasons this is the only choice we have is that in times
> past, there were stores which did pay the employees enough to get people
> who understood the products. People would go in, get their questions
> answered, then go to the Wal-Marts and Radio Shacks to buy the item
> because it was cheaper there. We've gotten what we created and what we
> collectively deserve.
>

Thanks for the reminder, Roy. But that has been a long while.

Phil w7ox

3769. finally putting copper to the torch for 20, can I make it work for 30 too?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 04:48:55 UTC
From: eternalsquire@comcast.net
Message-ID: <1132980535.219168.49420@z14g2000cwz.googlegroups.com>
Source record: 67466

All,

I'm finally putting together a vertical antenna that I hope will work
on 20 meters.

Soil is sandstone with occasional bits of granite, impossible to drill
into, it has to be
chiseled out with a hand pickaxe. I won't begin to tell you the agony
involved in
chipping out a 2 1/2 foot cubic hole into this stuff, but I managed to
do it.

But in any case forget about soil conductivity, and forget about ground
rods! There
is a single ground rod courtesy of the electrical company... probably
not at good
depth for RF but it is the only game in town.

Construction:

The ground half of the antenna starts with 5 foot of 1 inch diameter
iron pipe,
sunk halfway into hole filled with concrete. 2 1/2 half feet of iron
pipe are exposed
above the dirt. This is connected to 10 foot of 3/4 inch copper pipe.

At the 12 foot level I am mounting 4 radials, 8 foot 1 1/2 inches in
length, of 1/2 inch
diameter copper pipe. I am also mounting 4 copper guy wires, same
length, that are
intended to also work as additional radials.

The radiative half of the antenna starts with 10 foot of 3/4 copper
pipe, topped with
a 9 foot carbon fiber fishing pole. A thin copper wire of about 6 foot
3 inches in length
will be run up the fishing pole, for a total length of 16 foot 3
inches. I will be mounting
rope guy wires on the botttom of the radiative half.

The ground half and radiative half are connected together with a PVC
coupler, and make
contact with each other inside the coupler via a thick styrofoam
spacer.

Question:

This antenna is designed to hopefully work on 20 meters. If I run a wire of 14 feet 4 1/2 inches up the fishing pole instead of the 6 foot 3 inches, and if I use guy wires of 12 foot 2 1/4 inches, leaving the radial lengths unchanged: will I get a vertical that I can work on both 30 and 20 meters?

Thanks in advance,

The Eternal Squire

3770. can I make this 20 meter antenna work on 30 also?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 05:00:39 UTC
From: eternalsquire@comcast.net
Message-ID: <1132981239.429441.291730@g47g2000cwa.googlegroups.com>
Source record: 67467

All,

I'm finally putting together a vertical antenna that I hope will work on 20 meters.

Soil is sandstone with occasional bits of granite, impossible to drill into, it has to be chiseled out with a hand pickaxe. I won't begin to tell you the agony involved in chipping out a 2 1/2 foot cubic hole into this stuff, but I managed to do it.

But in any case forget about soil conductivity, and forget about ground rods! There is a single ground rod courtesy of the electrical company... probably not at good depth for RF but it is the only game in town.

Construction:

The ground half of the antenna starts with 5 foot of 1 inch diameter iron pipe, sunk halfway into hole filled with concrete. 2 1/2 half feet of iron pipe are exposed above the dirt. This is connected to 10 foot of 3/4 inch copper pipe.

At the 12 foot level I am mounting 4 radials, 8 foot 1 1/2 inches in length, of 1/2 inch diameter copper pipe. I am also mounting 4 copper guy wires, same length, that are intended to also work as additional radials.

The radiative half of the antenna starts with 10 foot of 3/4 copper pipe, topped with a 9 foot carbon fiber fishing pole. A thin copper wire of about 6 foot 3 inches in length will be run up the fishing pole, for a total length of 16 foot 3 inches. I will be mounting rope guy wires on the botttom of the radiative half.

The ground half and radiative half are connected together with a PVC coupler, and make contact with each other inside the coupler via a thick styrofoam spacer.

Question:

This antenna is designed to hopefully work on 20 meters. If I run a wire of 14 feet 4 1/2 inches up the fishing pole instead of the 6 foot 3 inches, and if I use guy wires of 12 foot 2 1/4 inches, leaving the radial lengths unchanged: will I get a vertical that I can work on both 30 and 20 meters?

Thanks in advance,

The Eternal Squire

3771. Re: can I make this 20 meter antenna work on 30 also?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 05:51:08 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11oftujtfb44t98@corp.supernews.com>
Source record: 67468

Here is one little trick I tried a couple of years ago, when I had an elevated 20 meter vertical with the feed point about 10 feet in the air with 4 16 ft radials. I fed it at the base with a 4 to 1 balun, mounted in reverse. I then ran 450 ohm twin lead to the shack with a Johnson Matchbox to tune the feeders..it worked 40 thru 10 meters (some loss on 40 but it did work there ok).
If you try this..you need to do something to keep the twin lead from swinging in the wind..or the impendence will change quite a bit.

<eternalsquire@comcast.net> wrote in message
news:1132981239.429441.291730@g47g2000cwa.googlegroups.com...
> All,
>
> I'm finally putting together a vertical antenna that I hope will work
> on 20 meters.
>
> Soil is sandstone with occasional bits of granite, impossible to drill
> into, it has to be
> chiseled out with a hand pickaxe. I won't begin to tell you the agony
> involved in
> chipping out a 2 1/2 foot cubic hole into this stuff, but I managed to
> do it.
>
> But in any case forget about soil conductivity, and forget about ground
> rods! There
> is a single ground rod courtesy of the electrical company... probably
> not at good
> depth for RF but it is the only game in town.
>
> Construction:
>
> The ground half of the antenna starts with 5 foot of 1 inch diameter
> iron pipe,
> sunk halfway into hole filled with concrete. 2 1/2 half feet of iron
> pipe are exposed
> above the dirt. This is connected to 10 foot of 3/4 inch copper pipe.
>
>
> At the 12 foot level I am mounting 4 radials, 8 foot 1 1/2 inches in
> length, of 1/2 inch
> diameter copper pipe. I am also mounting 4 copper guy wires, same
> length, that are
> intended to also work as additional radials.
>

> The radiative half of the antenna starts with 10 foot of 3/4 copper
> pipe, topped with
> a 9 foot carbon fiber fishing pole. A thin copper wire of about 6 foot
> 3 inches in length
> will be run up the fishing pole, for a total length of 16 foot 3
> inches. I will be mounting
> rope guy wires on the botttom of the radiative half.
>
> The ground half and radiative half are connected together with a PVC
> coupler, and make
> contact with each other inside the coupler via a thick styrofoam
> spacer.
>
> Question:
>
> This antenna is designed to hopefully work on 20 meters. If I run a
> wire of 14 feet 4 1/2 inches up the fishing pole instead of the 6 foot
> 3 inches, and if I use guy wires of 12 foot 2 1/4 inches, leaving the
> radial lengths unchanged: will I get a vertical that I can work on
> both 30 and 20 meters?
>
> Thanks in advance,
>
> The Eternal Squire
>

3772. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 14:14:13 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ctWdna2P4dgu8BXenZ2dnUVZ_sSdnZ2d@adelphia.com>
Source record: 67469

Ralph Mowery wrote:
>>>Instead of studying electronics you should have been studying the
>
> qusetion
>
>>>and answer book. When the questions are the same as in the book , it is
>
> no
>
>>>use learning anything for a test.
>>
>>Where do you get that, Ralph? That license isn't the final goal. It's
>>the beginning. If all a person wants to do is pass some test, I suppose
>>they could memorize Q and A. - although I might postulate that
>>memorizing over 800 questions for the Extra might be harder than simply
>>learning the material.
>>
>>
>
>
> Getting the license is the first goal. You have to memorize the rules to
> answer many of the questions. Might as well memorize the other parts too.
> You get your license and you can start to learn about ham radio.

Hmmm, I suspect that someone who wanted to learn about ham radio would start that process during the preparations for the test. Those who would want to memorize entire question pools probably won't be too interested in actually learning anything both before or afterward the memorization. As well as not too bright.

> Sometimes the questions can be deceiving and what may be a correct answer
> may not be the "best" answer.

Sure enough. I once took a test in which I was required to answer "the temperature at which solder melts. A through D were all possible answers in this case, because they didn't specify which ratio the solder was. I wrote "E, all of the above" Turns out they "meant" 60/40 solder. So I got the "wrong answer" even though I was a lot more correct than they were.

But that is life sometimes.

> As far as getting good answers about most anything at RAdio Shack or many
> other stores , what do you expect from someone making the wages they pay ?

I expect a correct answer, or "I'm sorry, but I'm don't really know".

> You do not get a salesman and electronics engineer for those wages.

One doesn't need to be an electronics engineer to have an intelligent
outlook.
>

> Try
> going into any store, say Wal-Mart and pick out an area and ask some
> specific questions about the products and see what they have to say.
> Chances are you will get the same dumb look and maybe a dumb answer.

Set your expectations low enough, and you'll seldom be disappointed! 8^)

- 73 de Mike KB3EIA -

3773. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 14:44:36 UTC
From: Phil Wheeler <w6tuh-ng4@yahoo.com>
Message-ID: <ox_hf.46926$Hs.21102@tornado.socal.rr.com>
Source record: 67470

Mike Coslo wrote:
> Ralph Mowery wrote:
>
>>>> Instead of studying electronics you should have been studying the
>>
>>
>> qusetion
>>
>>>> and answer book. When the questions are the same as in the book ,
>>>> it is
>>
>>
>> no
>>
>>>> use learning anything for a test.
>>>
>>>
>>> Where do you get that, Ralph? That license isn't the final goal. It's
>>> the beginning. If all a person wants to do is pass some test, I suppose
>>> they could memorize Q and A. - although I might postulate that
>>> memorizing over 800 questions for the Extra might be harder than simply
>>> learning the material.
>>>
>>>
>>
>>
>> Getting the license is the first goal. You have to memorize the rules to
>> answer many of the questions. Might as well memorize the other parts
>> too.
>> You get your license and you can start to learn about ham radio.
>
>
> Hmmm, I suspect that someone who wanted to learn about ham radio
> would start that process during the preparations for the test. Those who
> would want to memorize entire question pools probably won't be too
> interested in actually learning anything both before or afterward the
> memorization. As well as not too bright.
>

I've seen it done both ways. And I've seen "rote learners" blossom in
their knowledge and breadth of the hobby after getting licensed that
way. Also the opposite.

Since it is a hobby, what works for the individual seems to be all that
is important.

Phil w7ox

3774. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 15:09:20 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <43887aa0$0$32199$39cecf19@news.twtelecom.net>
Source record: 67471

Roy Lewallen wrote:

>
> One of the reasons this is the only choice we have is that in times
> past, there were stores which did pay the employees enough to get people
> who understood the products. People would go in, get their questions
> answered, then go to the Wal-Marts and Radio Shacks to buy the item
> because it was cheaper there. We've gotten what we created and what we
> collectively deserve.
>
> Roy Lewallen, W7EL

Support your local hardware store, support your local ham store....

I have paid a slight price penalty plus state and local tax to buy from
my local ham store for almost 20 years. I can also sometimes get break
when I have a rig that needs fixing 3 days before a contest or trip to
FL and the service wait sign says "3 weeks".

Buy local if you want good service from people you know and who know you.

Tom
K0TAR

3775. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 15:14:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <nZ_hf.24244$dO2.20033@newssvr29.news.prodigy.net>
Source record: 67472

Phil Wheeler wrote:
> I've seen it done both ways. And I've seen "rote learners" blossom in
> their knowledge and breadth of the hobby after getting licensed that
> way. Also the opposite.

At 14 years of age in 1952, I had little choice except to
mostly memorize the 90 or so general class questions
and answers in The License Manual. Being an amateur radio
operator is what motivated me through a EE degree and a long
career in electrical engineering.
--
73, Cecil http://www.qsl.net/w5dxp

3776. is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 15:33:02 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <sd%hf.36598$6y4.31271@bignews3.bellsouth.net>
Source record: 67473

I've recently put up a 140' dipole fed with ladderline. My tuner is separate from my rig, and is an unbalanced unit. So, I use a balun on the tuner output to hook the ladderline to.

I've been told that I should have a voltage balun in this application. I was surprised to hear this, as I expected to hear use a current balun.

Is the voltage balun the right one for this application?

3777. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 15:55:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <fA%hf.24246$dO2.12786@newssvr29.news.prodigy.net>
Source record: 67474

RB wrote:

> I've recently put up a 140' dipole fed with ladderline. My tuner is
> separate from my rig, and is an unbalanced unit. So, I use a balun on the
> tuner output to hook the ladderline to.
>
> I've been told that I should have a voltage balun in this application. I
> was surprised to hear this, as I expected to hear use a current balun.
>
> Is the voltage balun the right one for this application?

Only if you want your feedline currents to be unbalanced.
Your antenna is a lot like the one described on my web
page below that uses a 1:1 choke-current-balun and needs
no conventional tuner, the most efficient configuration
I could come up with. As can be seen from the current
maximum point graph on my web page, ~100 feet is a good
compromise length for the ladder-line for such an antenna.

A lot of hams will tell you to throw up a random length of
ladder-line and feed it through a 4:1 voltage balun. That's
usually not good advice and often results in a poor balun
function on one or more bands. If one doesn't know approximately
what impedance is being seen by the balun, one cannot predict if
it will function or not. The free version of EZNEC can predict
the approximate impedance seen by the balun. www.eznec.com
--
73, Cecil http://www.qsl.net/w5dxp/notuner.htm

3778. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 15:57:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <LB%hf.24248$dO2.13632@newssvr29.news.prodigy.net>
Source record: 67475

Edmund H. Ramm wrote:
> Full ACK. This el-cheapo mentality hurts economy.

Some TV or cable station is advertising a program called:
"Is Walmart good or bad for the country?"
--
73, Cecil http://www.qsl.net/w5dxp

3779. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 17:25:04 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <QT0if.83369$QM5.41958@tornado.socal.rr.com>
Source record: 67376

Cecil Moore wrote:
> Phil Wheeler wrote:
>
>> I've seen it done both ways. And I've seen "rote learners" blossom in
>> their knowledge and breadth of the hobby after getting licensed that
>> way. Also the opposite.
>
>
> At 14 years of age in 1952, I had little choice except to
> mostly memorize the 90 or so general class questions
> and answers in The License Manual. Being an amateur radio
> operator is what motivated me through a EE degree and a long
> career in electrical engineering.

Similar to my history. General Class at 16 in 1953. That motivated me
to get (eventually) three degrees in EE. Extra Class came 40+ years
later when I finally wrenched my code speed up to a reliable 20 WPM ..
not that it would matter now :)

73, Phil w7ox

3780. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 17:26:08 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <QU0if.83370$QM5.57094@tornado.socal.rr.com>
Source record: 67377

Edmund H. Ramm wrote:
> In <11ofpe5kh28mk09@corp.supernews.com> Roy Lewallen <w7el@eznec.com> writes:
>
>
>>[...]
>>One of the reasons this is the only choice we have is that in times
>>past, there were stores which did pay the employees enough to get people
>>who understood the products. People would go in, get their questions
>>answered, then go to the Wal-Marts and Radio Shacks to buy the item
>>because it was cheaper there. We've gotten what we created and what we
>>collectively deserve.
>
>
> Full ACK. This el-cheapo mentality hurts economy.
>

Yeah .. like buying rigs made in some other country :)

3781. 30/20 vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 17:35:21 UTC
From: eternalsquire@comcast.net
Message-ID: <1133023175.424981.104610@g43g2000cwa.googlegroups.com>
Source record: 67378

Hi,

For 20m I am planning a quarter wavelength vertical radiator with 4
eighth wavelength radials, mounted 12 feet high.

If I add another 4 radials cut an eight wavelength for 30m, will it be
easier to operate on 30?

Thanks,

The Eternal Squire

3782. Re: 30/20 vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 19:17:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%w2if.33945$6e1.9744@newssvr14.news.prodigy.com>
Source record: 67379

eternalsquire@comcast.net wrote:
> If I add another 4 radials cut an eight wavelength for 30m, will it be
> easier to operate on 30?

Doesn't much matter if they are buried radials. I'm wondering
if a short vertical with long elevated radials would result
in an "off-center-fed" vertical.
--
73, Cecil http://www.qsl.net/w5dxp

3783. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 20:17:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmafsb$l04$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67380

Cec,

As an aside, there appears to be a little confusion about the various uses of baluns which arises from their uncertain perhaps misleading descriptions.

Because of the way balun winding-wires are run, they are often described as transmission line transformers.

There are --

Voltage Baluns, Current Baluns and Choke baluns.

As I see it, Voltage Baluns have a definite voltage/impedance/turns ratio and are true impedance transformers. They may be used as either balanced-to-unbalanced windings, or be balanced-to-balanced, or be unbalanced-to-unbalanced. Balanced windings may be centre-tapped. One winding may be common to both primary and secondary windings.

Choke Baluns consist of a pair of wires wound together around a ferrite core. The two wires may be of coaxial form or may consist of a twisted pair or just a pair of wires laid alongside each other. The two wires together form a transmission line of calculable impedance and loss.

But a Choke Balun hss no impedance or voltage ratio. It is incorrect to refer to it as having an impedance ratio such as 1-to-1.

A Choke Balun does indeed behave as an impedance transformer from one end of its line to the other. But the transformation ratio is indeterminate. The ratio depends on frequency and line length as with any other transmission line.

The effects of inserting a Choke Balun between an unbalanced tuner and a balanced transmission line to the antenna can be beneficial insofar as tuner settings are concerned.

But in general, the length of line on a choke balun should not exceed 1/8th or 1/10th of a wavelength at the highest frequency of use. This is not too difficult to achieve in the HF range of 1.8 or 3.5 to 30 MHz.

But I do not understand what is meant by a Current Balun.

Perhaps Roy, who is very good at it, could define what is a Current Balun if there is such a thing. And while he is about it, Voltage and Choke Baluns.

He may choose to give them different names. But his views can only be beneficial to the mislading waffle which surounds them.

Reg.

3784. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 20:43:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <6O3if.20690$7h7.11855@newssvr21.news.prodigy.com>
Source record: 67381

Reg Edwards wrote:
> But a Choke Balun hss no impedance or voltage ratio. It is incorrect
> to refer to it as having an impedance ratio such as 1-to-1.
> But I do not understand what is meant by a Current Balun.

Reg, the words, "choke" and "current" have become synonymous
when used as an adjective to describe baluns. A choke-balun
is a current-balun, usually a 1:1. N:1 current baluns exist
where N is not equal to one. Sometimes, an extra winding on
the toroid ensures that the currents are balanced.

> Perhaps Roy, who is very good at it, could define what is a Current
> Balun if there is such a thing. And while he is about it, Voltage and
> Choke Baluns.

Try: http://www.eznec.com/Amateur/Articles/Baluns.pdf

Also: http://www.w2du.com/r2ch21.pdf

Current baluns balance the feedpoint currents and voltage baluns
balance the feedpoint voltages. Since unbalanced currents cause
radiation from the feedline, current baluns are considered
superior for amateur radio applications. The W2DU choke balun is
a member of the subset of current baluns.
--
73, Cecil http://www.qsl.net/w5dxp

3785. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 21:42:59 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c9a36$4388d6e6$97d56a33$9940@ALLTEL.NET>
Source record: 67382

No, a current balun is the desired beasty in this case.

"RB" <rbig@bellsouth.nospam.net> wrote in message
news:sd%hf.36598$6y4.31271@bignews3.bellsouth.net...
> I've recently put up a 140' dipole fed with ladderline. My tuner is
> separate from my rig, and is an unbalanced unit. So, I use a balun on the
> tuner output to hook the ladderline to.
>
> I've been told that I should have a voltage balun in this application. I
> was surprised to hear this, as I expected to hear use a current balun.
>
> Is the voltage balun the right one for this application?
>
>

3786. Re: finally putting copper to the torch for 20, can I make it work for 30 too?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 21:51:44 UTC
From: jgboyles@aol.com
Message-ID: <1133041904.909579.248830@g43g2000cwa.googlegroups.com>
Source record: 67383

eternalsquire@comcast.net wrote:

> This antenna is designed to hopefully work on 20 meters. If I run a
> wire of 14 feet 4 1/2 inches up the fishing pole instead of the 6 foot
> 3 inches, and if I use guy wires of 12 foot 2 1/4 inches, leaving the
> radial lengths unchanged: will I get a vertical that I can work on
> both 30 and 20 meters?
>
> Thanks in advance,
>
> The Eternal Squire

Hi ES, How are you going to run the 14' wire up a 9' fishing pole?
I think you would need both the 6' wire and the 14' wire to get dual
band operation. Kind of like a fan dipole for 2 bands.
I think it would be a lot easier to just put up a dual band diople,
and if you could get it up 30' or so it would give a good toa for dx.
But, since you have already dug the hole, I am sure you will stick with
the ground plane.
Gary N4AST

3787. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 22:55:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmap4g$pv8$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67384

A choke (or current) balun is the correct choice.

The input impedance of the transmission line to the antenna varies all
over the shop from one band to another. So there is no definite
impedance to which the transmitter is to be matched.

A voltage balun is designed to match between two definite known
impedances of a given ratio, for example 4-to-1, 300-to-75 ohms,
values which never exist at your particular place in the system.

A choke or current balun is not intended to match one impedance to
another. It is intended only to allow, without loss, the transition
from a balanced line to an unbalanced tuner or transmitter.

Because the choke balun is in fact a short length of transmission line
wound on a ferrite core, an impedance transformation does occur
between one end and the other. But what the antenna line input
impedance is transformed to doesn't matter. It is just another
impedance for the tuner to handle and, as likely as not, the tuner
will handle it just as well. Just a change in L and C settings.

Reg, G4FGQ.

3788. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 23:22:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <f76if.33963$6e1.29219@newssvr14.news.prodigy.com>
Source record: 67385

Reg Edwards wrote:
> A choke or current balun is not intended to match one impedance to
> another.

Reg, there are 4:1 current baluns. See Figs A3-3,4 in
Roy's Balun article.
--
73, Cecil http://www.qsl.net/w5dxp

3789. WorldRadio Magazine Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-26 23:32:55 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Hg6if.33966$6e1.18996@newssvr14.news.prodigy.com>
Source record: 67386

Part 1 of my WorldRadio Oct. 2005 energy analysis article is
now available on my web page in Microsoft Word .doc format.
--
73, Cecil http://www.qsl.net/w5dxp/energy.doc

3790. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 00:05:18 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <2L6if.20708$7h7.12281@newssvr21.news.prodigy.com>
Source record: 67387

Even a broken clock is quite accurate, TWICE a day (the 12 hour
variety)! Jim NN7K

J. Mc Laughlin wrote:
> This is getting a bit far from antennas, but the way to know the uncertainty
> in knowing time is to have multiple clocks. NBS (whatever it now calls
> itself) has a bunch of clocks that are compared to each other.
> When I was young (and WWV was back East) the uncertainty indicated from
> multiple clocks was a few parts in ten to the eighth power. Today, that
> uncertainty is a few parts in ten to the 13th power! It takes multiple
> clocks to know the uncertainty.
>
> 73 Mac N8TT
>
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
> "Michael Coslo" <mjc5@enoughalready.psu.edu> wrote in message
> news:dm2gb7$1f72$1@f04n12.cac.psu.edu...
>
> <snip>
>
>>
>>A man with a watch knows the time.
>>
>>A man with two watches is never sure......
>>
>>
>>
>>- Mike KB3EIA -
>>
>
>
>

3791. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 00:20:01 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <4lan53-g8n.ln1@mail.specsol.com>
Source record: 67388

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> ******* Copied from uk.radio.amateur newsgroup. ********

> > Reg spoke of the SWR meter as a resistance bridge. It is possible to
> build a
> > meter that is a bridge
> ==================================

> The so-called SWR meter is ALWAYS a resistance bridge (although it may
> be described in other terms).

Utter nonsense.

There are numerous ways to measure SWR without using a bridge of any
kind.

A bridge implementation is mearly a simple and cheap way to do it and
hence the most likely to be found in use by a hobbiest.

<snip remainder>

--
Jim Pennino

Remove .spam.sux to reply.

3792. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 00:34:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmautq$ac4$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67389

Cec, a choke balun has an indeterminate ratio.

A choke balun which the man asked about, is, as you say, a current balun.

I don't doubt that there are some forms of current baluns which have a definite ratio. But they have more than two wires. They can be used to transform one admittance or susceptance to another. ;o)

One thing for sure - they are all transmission line transformers - for the want of a better name!

In some ways they are remarkable components. They should have been invented 100 years before alongside ordinary L,C, R & G. But they had to wait for the invention of ferrites which I understand did not occur until the early 1940's in wartime Holland. But I would not be surprised if somebody comes along with the idea that the invention was in Bell Labs in the 1930's. Even before the Smith Chart which was an adaption of similar charts in use in the late Victorian Age.

In the 1950's I met an American engineer who told me that in 1945 there were Americans looking round bombed-out German radio factories and by chance came across some tiny top hats with narrow brims and with 3 fine wires sticking out of one end. "What on Earth are these" they asked.

I could go on. It's the Devil which makes me say such things. ;o)

Reg.

3793. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 00:45:39 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <q_OdnXWILskvnBTeRVn-sg@adelphia.com>
Source record: 67390

Edmund H. Ramm wrote:
> In <11ofpe5kh28mk09@corp.supernews.com> Roy Lewallen <w7el@eznec.com> writes:
>
>
>>[...]
>>One of the reasons this is the only choice we have is that in times
>>past, there were stores which did pay the employees enough to get people
>>who understood the products. People would go in, get their questions
>>answered, then go to the Wal-Marts and Radio Shacks to buy the item
>>because it was cheaper there. We've gotten what we created and what we
>>collectively deserve.
>
>
> Full ACK. This el-cheapo mentality hurts economy.

Look at your average PC. The cutthroat competition has cause the
typical PC to evolve into a real POS. On the other hand, my G5 Mac is a
piece of art by comparison. And I replace my Macs a lot less than my
PCs. Not to mention I don't cut myself on the sharp edges on the inside
that would destroy the profit margin if they were removed! 8^)

I use both, and I'm not flaming the PC's - just stating fact.

If we want cheap, that is exactly what we'll get.

- 73 de Mike KB3EIA -

3794. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 00:49:58 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <OZWdnWUj0J0onxTenZ2dnUVZ_sGdnZ2d@adelphia.com>
Source record: 67391

Cecil Moore wrote:
> Edmund H. Ramm wrote:
>
>> Full ACK. This el-cheapo mentality hurts economy.
>
>
> Some TV or cable station is advertising a program called:
> "Is Walmart good or bad for the country?"

Isn't that the study that found out that when a Wally World moved into a town, that the needed social services increased?

- 73 de Mike KB3EIA -

3795. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 01:06:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmb0qferp1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67392

> > > Reg spoke of the SWR meter as a resistance bridge. It is
possible to
> > build a
> > > meter that is a bridge
> > ==========
>
> > The so-called SWR meter is ALWAYS a resistance bridge (although it
may
> > be described in other terms).
>
> Utter nonsense.
>
> There are numerous ways to measure SWR without using a bridge of any
> kind.
>
> A bridge implementation is mearly a simple and cheap way to do it
and
> hence the most likely to be found in use by a hobbiest.
>
==========

I'm sorry to say you are all banging your heads against a brick wall.

The so-called SWR meter does NOT measure SWR.

For starters, there is no transmission line on which to measure
anything. Can you find one? It is NOT the one which goes between
tuner and antenna.

To measure SWR on THAT line the meter has to be located in the air at
the antenna end of the line and has to be read using an astronomical
telescope mounted on a tripod. But it would still give the wrong
answers.

Go and think about it some more.

Reg, G4FGQ

3796. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 01:10:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9b1io1hcv07plphfbppfdg5bc4nl4et4lp@4ax.com>
Source record: 67393

On Sat, 26 Nov 2005 19:49:58 -0500, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

> Isn't that the study that found out that when a Wally World moved into
>a town, that the needed social services increased?

Hi Mike,

If not, it's from "Wal*Mart - the high cost of low prices," a film
(really a DVD) from Robert Greenwald who also did "OutFoxed."

I've been showing the Wal*Mart DVD to audiences for two weeks now.

The social cost to America from Wal*Mart's business practices is on
the order of $1.5 Billion. When you look at if from the Chinese
perspective, they are getting gang-banged too. The presentation
showed how Wal*Mart paid workers 6ï¿½ apiece for an item selling at $12.

73's
Richard Clark, KB7QHC

3797. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 01:44:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11oi3sj7sagavf4@corp.supernews.com>
Source record: 67394

You might find it instructive to take a look at
http://eznec.com/Amateur/Articles/Baluns.pdf.

Roy Lewallen, W7EL

RB wrote:
> I've recently put up a 140' dipole fed with ladderline. My tuner is
> separate from my rig, and is an unbalanced unit. So, I use a balun on the
> tuner output to hook the ladderline to.
>
> I've been told that I should have a voltage balun in this application. I
> was surprised to hear this, as I expected to hear use a current balun.
>
> Is the voltage balun the right one for this application?
>
>

3798. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 01:55:01 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <40gn53-lf7.ln1@mail.specsol.com>
Source record: 67395

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:
> > > > Reg spoke of the SWR meter as a resistance bridge. It is
> possible to
> > > build a
> > > > meter that is a bridge
> > > ==========
> >
> > > The so-called SWR meter is ALWAYS a resistance bridge (although it
> may
> > > be described in other terms).
> >
> > Utter nonsense.
> >
> > There are numerous ways to measure SWR without using a bridge of any
> > kind.
> >
> > A bridge implementation is mearly a simple and cheap way to do it
> and
> > hence the most likely to be found in use by a hobbiest.
> >
> ==========

> I'm sorry to say you are all banging your heads against a brick wall.

It feels that way when trying to discuss SWR with you.

> The so-called SWR meter does NOT measure SWR.

Depends on what you call a SWR meter and what you mean by measure,
but this has already been hashed to bits.

> For starters, there is no transmission line on which to measure
> anything. Can you find one? It is NOT the one which goes between
> tuner and antenna.

It depends on how you implement the hardware to measure SWR, but you
are so obsessed with bridge circuits you have little chance of
understanding there is more in the world.

What do tuners have to do with anything? Tuners are irrelevant to
the original post. Are you deliberately trying to confuse the issue
or do tuners confuse you?

> To measure SWR on THAT line the meter has to be located in the air at
> the antenna end of the line and has to be read using an astronomical
> telescope mounted on a tripod. But it would still give the wrong
> answers.

> Go and think about it some more.

I did in EE class about 30 years ago and numerous times since. Guess what, the physics hasn't changed.

You are so obsessed on this issue that the small nugget of information you have to offer is swamped by the enormous amount of arm waving and babble.

> ----
> Reg, G4FGQ

--
Jim Pennino

Remove .spam.sux to reply.

3799. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 02:59:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmb7eu$t13$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67396

> You are so obsessed on this issue that the small nugget of
information
> you have to offer is swamped by the enormous amount of arm waving
> and babble.
>
==========

I'm afraid your reduction to personalities is a positive indication to
bystanders you have lost the argument and have accepted defeat.

No hard feelings! Have a good day!

Reg, G4FGQ

3800. Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 03:06:26 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-8F65B8.21062626112005@newsclstr02.news.prodigy.com>
Source record: 67397

I picked up a new (to me) TS-570S(G) so I can start working six meters. I do not have a dedicated six meter antenna so I decided to try my Fan dipole. It was a 40/80 W9INN dipole that I modified for 18 MHz and 10 MHz by adding two sets of wires. I tried it on 50.125 and rig loves it. I can get full power with whisper of SWR that the TS-570S can easily handle.

The SWR on 51 and 52 MHz is not that good; however, the auto-tuner makes the 570 smile. I am not really concerned as I plan operate mostly at 50 MHz.

Something tells me the 18 MHz wires are semi-resonant at 50 MHz and I got lucky.

73, Dick AA5VU

3801. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 03:08:54 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11oi8q6p45q8fde@corp.supernews.com>
Source record: 67398

Whut is wrong with memorizing the test questions? I did that all
through school, from pre-kindergarten to the present. Thats why I know
so much stuff.....well, I sorta know a bunch of stuff. Buttt, I R
Retired now and I don't have to know anything anymore. Now, aint that
some shit.
Ole' Butch said that..

Tom Ring wrote:
> Owen Duffy wrote:
>
>> On 23 Nov 2005 20:29:37 GMT, Allodoxaphobia <bit-bucket@config.com>
>> wrote:
>>
>>
>>
>>> Too much ruckus has been focused on the 'No Code License' issue.
>>> The ruckus should, instead, be focused on the 'No Clue License'.
>>
>>
>>
>> I never mentioned the no-code licence... we got over that over a year
>> ago down under.
>>
>> I suggest it is not a matter of the no-clue licence, but the no-clue
>> licensee, who could be licensed in any grade.
>>
>> Owen
>> (Spelling correct for country of origin!)
>> --
>
>
> Correct. I have personally met more extras without a clue than
> generals, and that's not percentage-wise. Your personal mileage may
> vary, but a lot of extras seem to be really code oriented or contest
> oriented, and did nothing but memorize the technical questions answers
> (US) to pass.
>
> I do not maean to disparage anyone who got their license by legitimate
> means.
>
> Wasn't there a scandal around that sort of thing a while ago. The name
> West comes to mind, but I truthfully don't remember anything more than
> that.
>

> tom
> K0TAR

3802. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 03:14:02 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4389248a$0$3756$39cecf19@news.twtelecom.net>
Source record: 67399

Reg Edwards wrote:

>>You are so obsessed on this issue that the small nugget of
>
> information
>
>>you have to offer is swamped by the enormous amount of arm waving
>>and babble.
>>
>
> ==========
>
> I'm afraid your reduction to personalities is a positive indication to
> bystanders you have lost the argument and have accepted defeat.
>
> No hard feelings! Have a good day!
> ----
> Reg, G4FGQ
>
>

Reg

As someone who has watched from the sidelines for quite a while, I think
you need to consult a psychiatrist, You really are obsessed over this.
I am not kidding, no shit.

You seem normal in most of your responses, but when it comes to SWR
meters you really do seem to lose it.

tom
K0TAR

3803. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 03:18:21 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4389258d$0$3756$39cecf19@news.twtelecom.net>
Source record: 67400

Well, I guess he summed it up quite succinctly.

tom
K0TAR

Butch Magee wrote:

> Whut is wrong with memorizing the test questions? I did that all
> through school, from pre-kindergarten to the present. Thats why I know
> so much stuff.....well, I sorta know a bunch of stuff. Buttt, I R
> Retired now and I don't have to know anything anymore. Now, aint that
> some shit.
> Ole' Butch said that..
>
>
> Tom Ring wrote:
>
>> Owen Duffy wrote:
>>
>>> On 23 Nov 2005 20:29:37 GMT, Allodoxaphobia <bit-bucket@config.com>
>>> wrote:
>>>
>>>
>>>
>>>> Too much ruckus has been focused on the 'No Code License' issue.
>>>> The ruckus should, instead, be focused on the 'No Clue License'.
>>>
>>>
>>>
>>>
>>> I never mentioned the no-code licence... we got over that over a year
>>> ago down under.
>>>
>>> I suggest it is not a matter of the no-clue licence, but the no-clue
>>> licensee, who could be licensed in any grade.
>>>
>>> Owen
>>> (Spelling correct for country of origin!)
>>> --
>>
>>
>>
>> Correct. I have personally met more extras without a clue than
>> generals, and that's not percentage-wise. Your personal mileage may
>> vary, but a lot of extras seem to be really code oriented or contest

>> oriented, and did nothing but memorize the technical questions answers
>> (US) to pass.
>>
>> I do not maean to disparage anyone who got their license by legitimate
>> means.
>>
>> Wasn't there a scandal around that sort of thing a while ago. The
>> name West comes to mind, but I truthfully don't remember anything more
>> than that.
>>
>> tom
>> K0TAR

3804. Re: WorldRadio Magazine Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 03:25:50 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11oi9pv3me11fe4@corp.supernews.com>
Source record: 67401

Cecil Moore wrote:
> Part 1 of my WorldRadio Oct. 2005 energy analysis article is
> now available on my web page in Microsoft Word .doc format.

Yo, I can''t get to you're web site. Must be because I memorized
everything coming up. Yep, ats where I mussed up.

Butch

3805. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 03:36:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <2R9if.24834$q%.23288@newssvr12.news.prodigy.com>
Source record: 67402

Dick, AA5VU wrote:
> Something tells me the 18 MHz wires are semi-resonant at 50 MHz
> and I got lucky.

If the 40m dipole is still intact, 50/7.14 = 7
--
73, Cecil http://www.qsl.net/w5dxp

3806. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 03:42:39 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <PdidnSmj6ctTtxTenZ2dnUVZ_tGdnZ2d@bright.net>
Source record: 67403

50 Mhz is around the 3rd harmonic of 18 MHz, so you basically have a 1.5 wavelength dipole for 50 MHz. Since the 3rd harmonic is normally about 54 MHz, I suspect all the other dipoles are affecting it slightly and the rig likes it. Sounds like a good benefit from those "interfering" dipoles ;)

Scott
N0EDV

Dick, AA5VU wrote:

> I picked up a new (to me) TS-570S(G) so I can start working six meters.
> I do not have a dedicated six meter antenna so I decided to try my Fan
> dipole. It was a 40/80 W9INN dipole that I modified for 18 MHz and 10
> MHz by adding two sets of wires. I tried it on 50.125 and rig loves it.
> I can get full power with whisper of SWR that the TS-570S can easily
> handle.
>
> The SWR on 51 and 52 MHz is not that good; however, the auto-tuner makes
> the 570 smile. I am not really concerned as I plan operate mostly at
> 50 MHz.
>
> Something tells me the 18 MHz wires are semi-resonant at 50 MHz
> and I got lucky.
>
> 73, Dick AA5VU

3807. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 04:39:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmbd9l$34e$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67404

"Tom Ring" wrote
> As someone who has watched from the sidelines for quite a while, I
think
> you need to consult a psychiatrist, You really are obsessed over
this.
> I am not kidding, no shit.
>
> You seem normal in most of your responses, but when it comes to SWR
> meters you really do seem to lose it.

Doctor Tom,

Hasn't it occurred to you that if most of my responses are normal then there's no reason to suppose my response to so- called SWR meters should be otherwise.

If ever I should feel the need to consult a psychiatrist then I would make arrangements to see one. I would ignore the unqualified opinions of quacks and old-wives on this newsgroup who have allowed themselves to be brainwashed just by the mis-naming of an indicating instrument.

My only reason for continuing with the subject is to provide some education to novices although it seems some of the 'experts' are also in need of it.

If YOU wish to continue with the subject then please say which of my very few earlier technical statements you think are incorrect, and why you think so.

If the discussion should drift towards my personal character then it will be taken as an indication you have lost the argument and have nothing further to say.

Otherwise go QRT

Reg, G4FGQ

3808. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 04:59:11 UTC
From: Charlie <charlie@play.com>
Message-ID: <11oif98lke3rk15@news.supernews.com>
Source record: 67405

I wonder how many band openings both of you have missed while participating
in this cyber pissing contest?

--

Charlie

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dmbd9l$34e$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Tom Ring" wrote
>> As someone who has watched from the sidelines for quite a while, I
> think
>> you need to consult a psychiatrist, You really are obsessed over
> this.
>> I am not kidding, no shit.
>>
>> You seem normal in most of your responses, but when it comes to SWR
>> meters you really do seem to lose it.
> --
> -----
>
> Doctor Tom,
>
> Hasn't it occurred to you that if most of my responses are normal then
> there's no reason to suppose my response to so- called SWR meters
> should be otherwise.
>
> If ever I should feel the need to consult a psychiatrist then I would
> make arrangements to see one. I would ignore the unqualified opinions
> of quacks and old-wives on this newsgroup who have allowed themselves
> to be brainwashed just by the mis-naming of an indicating instrument.
>
> My only reason for continuing with the subject is to provide some
> education to novices although it seems some of the 'experts' are also
> in need of it.
>
> If YOU wish to continue with the subject then please say which of my
> very few earlier technical statements you think are incorrect, and why
> you think so.
>
> If the discussion should drift towards my personal character then it
> will be taken as an indication you have lost the argument and have
> nothing further to say.
>

> Otherwise go QRT
> ----
> Reg, G4FGQ
>
>

3809. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 07:29:29 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <Tddif.89036$ty1.39736@bignews1.bellsouth.net>
Source record: 67406

Good replies. Thanks.

So: does the commonly available choke balun (round cylinder with coax connectors on each end, and ferrite beads inside the cylinder) allow us to put unbalanced feed in one end, and get balanced feed on the other?

Or, are they ununs?

3810. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 10:55:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11oj4514qm9bne4@corp.supernews.com>
Source record: 67407

A properly operating choke (current) balun will cause the currents in the two conductors to be balanced (equal and opposite) at both ports. So I guess you could call it a balbal if you want.

Why would anyone want a device that causes the currents at both ports to be unbalanced?

Roy Lewallen, W7EL

RB wrote:
> Good replies. Thanks.
>
> So: does the commonly available choke balun (round cylinder with coax
> connectors on each end, and ferrite beads inside the cylinder) allow us to
> put unbalanced feed in one end, and get balanced feed on the other?
>
> Or, are they ununs?
>
>

3811. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 14:02:22 UTC
From: Dan Richardson <>
Message-ID: <a1fjo1dgl8rmhj5bcupu3vvcp7hvrfbu8a@4ax.com>
Source record: 67408

On Sun, 27 Nov 2005 01:29:29 -0600, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Good replies. Thanks.
>
>So: does the commonly available choke balun (round cylinder with coax
>connectors on each end, and ferrite beads inside the cylinder) allow us to
>put unbalanced feed in one end, and get balanced feed on the other?
>
>Or, are they ununs?

I suggest you take a look at this:

http://www.w2du.com/r2ch21.pdf

73
Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/
>

3812. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 14:08:34 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-DC0897.08083327112005@newsclstr02.news.prodigy.com>
Source record: 67409

In article <2R9if.24834$q%.23288@newssvr12.news.prodigy.com>,
Cecil Moore <mycall@arrl.net> wrote:

> Dick, AA5VU wrote:
> > Something tells me the 18 MHz wires are semi-resonant at 50 MHz
> > and I got lucky.
>
> If the 40m dipole is still intact, 50/7.14 = 7

Like I sad,..... I just got lucky. It was not planned.

I am wondering if there would be any benefit to adding a set of wires
for 50 MHz

3813. Source for good trap boots for tri-bander???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 14:17:59 UTC
From: Dave - KB8NNU <kb8nnu@charter.net>
Message-ID: <1133101079.399556.132760@z14g2000cwz.googlegroups.com>
Source record: 67410

Howdy all....I am in the process of rebuilding an older tribander that I have and need some input. I want to replace all of the trap boots, but don't know where to get such a thing. I'm not sure what kind of antenna it is. I originally thought it was a TA-33 jr...??? The traps have a diameter of 1.5'' and the anntenna diameter is .75''. Any help would greatly be appreciated.

Thanks,

Dave - KB8NNU

3814. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 14:45:21 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <mCjif.32329$Y82.30893@bignews4.bellsouth.net>
Source record: 67411

OK. I read that most excellent article.

I think Figure 21-4 (A) definitively answers my question about the ferrite bead choke balun. Yes, I can put unbalanced feed in one end, and get balanced output on the other.

Thanks again for all the good info.

3815. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 14:59:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <KRjif.24362$dO2.17495@newssvr29.news.prodigy.net>
Source record: 67412

RB wrote:
> So: does the commonly available choke balun (round cylinder with coax
> connectors on each end, and ferrite beads inside the cylinder) allow us to
> put unbalanced feed in one end, and get balanced feed on the other?
> Or, are they ununs?

Since they function by choking RF on the outside braid, they
can function as either baluns or ununs. If RF is choked and
not flowing on the outside braid, then differential currents
are forced to flow in the two remaining conductors be they
parallel wires or the inside wire and braid of the coax.
--
73, Cecil http://www.qsl.net/w5dxp

3816. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 15:03:09 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4389cabd$0$3756$39cecf19@news.twtelecom.net>
Source record: 67413

Charlie wrote:

> I wonder how many band openings both of you have missed while participating
> in this cyber pissing contest?
>

Let's see, I have made one comment on the subject of Reg and SWR
measurement. Ever.

So probably none.

And all I said was that he seemed to be obsessive. I never said
anything about the validity of his arguments, so I cerainly was not
involved in a pissing contest.

I think it's all quite amusing actually.

tom
K0TAR

3817. Re: Source for good trap boots for tri-bander???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 15:16:35 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <y86dna2NHoQlUBTenZ2dnUVZ_sSdnZ2d@vnet-inc.com>
Source record: 67414

If it is a HyGain antenna you can still order parts from MFJ. I rebuilt a TH6-DXX a couple of years ago and ordered all new trap caps and end caps from them, no problem.

K7SAM - Sam

3818. Re: Source for good trap boots for tri-bander???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 15:21:39 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <_4-dnXe9-LyWUhTeRVn-tQ@comcast.com>
Source record: 67415

"Dave - KB8NNU" <kb8nnu@charter.net> wrote in message
news:1133101079.399556.132760@z14g2000cwz.googlegroups.com...
> Howdy all....I am in the process of rebuilding an older tribander that
> I have and need some input. I want to replace all of the trap boots,
> but don't know where to get such a thing. I'm not sure what kind of
> antenna it is. I originally thought it was a TA-33 jr...??? The traps
> have a diameter of 1.5'' and the anntenna diameter is .75''. Any help
> would greatly be appreciated.
>
> Thanks,
>
> Dave - KB8NNU
>

Your tribander most likely was made by:

Mosley (The TA-33jr had a 12 foot boom & color coded traps);
http://www.mosley-electronics.com/spec%20files/amateur/ta33jr.htm

HyGain/MFJ (TH-3JRS also has a 12 foot boom)
http://www.hy-gain.com/products.php?prodid=TH-3JRS

Cushcraft
http://www.cushcraft.com/amateur/support/instruction-manuals.htm

w9gb

3819. Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 16:17:45 UTC
From: Mark Sheffield <sheffield@earthlink.net>
Message-ID: <romjo1d0llfq1d77knh7he7ak3pb5gnga4@4ax.com>
Source record: 67416

I'll be moving my rig to a second floor OP here soon, I've always been at/below ground level with a short run to a ground rod. I'm only running a trap dipole nowdays and I don't want to get into the mess of a counterpoise. Can I/will I get an acceptable ground by running a ground strap to a ground rod? I imagine that a lot of folks are doing this - is there any advice regarding getting it grounded from this height?

tnx - Mark/n0lf

3820. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 17:17:24 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <SsGdnQqPE71ddBTeRVn-hw@bright.net>
Source record: 67417

WHAT!?!? And potentially screw up a good thing? ;)

Maybe it's warm where you are, but antenna modification season has ended
here in Wisconsin (for the most part!)

Scott
N0EDV

aRKay wrote:

> In article <2R9if.24834$q%.23288@newssvr12.news.prodigy.com>,
> Cecil Moore <mycall@arrl.net> wrote:
>
>
>>Dick, AA5VU wrote:
>>
>>>Something tells me the 18 MHz wires are semi-resonant at 50 MHz
>>>and I got lucky.
>>
>>If the 40m dipole is still intact, 50/7.14 = 7
>
>
> Like I sad,..... I just got lucky. It was not planned.
>
> I am wondering if there would be any benefit to adding a set of wires
> for 50 MHz

3821. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 17:27:04 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <I%lif.2552$Y%5.809@newssvr17.news.prodigy.com>
Source record: 67418

Mark,
Sounds like a 'balanced' antenna to me, why a
ground other than for electrical purposes (not RF)?
- 'Doc

3822. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 17:49:14 UTC
From: Mark Sheffield <sheffield@earthlink.net>
Message-ID: <4asjo1hv946ve2l5u17c1j8bmcruubei6t@4ax.com>
Source record: 67419

I needed to hear it from somebody else, that's all.

I'm not quite balanced in the feed, as I'm using coax out to the
dipole feedpoint, but probably close enough.

tnx - Mark

On Sun, 27 Nov 2005 17:27:04 GMT, 'Doc <w5lz@cwis.net> wrote:

>Mark,
> Sounds like a 'balanced' antenna to me, why a
>ground other than for electrical purposes (not RF)?
> - 'Doc

3823. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 18:11:44 UTC
From: pisteuo2@gmail.com
Message-ID: <1133115104.754829.100270@g49g2000cwa.googlegroups.com>
Source record: 67420

Paul:
Try this site: http://www.qsl.net/vk5br/EHAntenna20_40.htm
Respectfully,
art in Reno

Paul Taylor wrote:
> Hi,
>
> I am looking for an explanation of how an antenna receives a signal due
> to the E-field of an electromagnetic wave.
>
> I have looked in some books, and can understand transmission, but the
> books I have looked in don't explain reception.
>
> I have found an explanation of how the H-field induces a signal in a loop
> antenna: a changing magnetic flux will induce a current.
>
> But what about the E-field and a dipole antenna? I guess that the E-field
> causes electrons to move in the antenna wire, because in a solid
> conductor, electrons will move until the E-field inside the solid is
> cancelled out?
>
> I have googled but having difficulty finding a good explanation. Any
> pointers?
>
> Thanks & regards,
>
> Paul.
>
> --
> Remove _rem_ before replying by email.

3824. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 18:45:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Y8nif.19155$BZ5.18183@newssvr13.news.prodigy.com>
Source record: 67421

Scott wrote:
> Maybe it's warm where you are, but antenna modification season has ended
> here in Wisconsin (for the most part!)

Here in East Texas close to Texas A&M, the expected high
is 84 degrees today with lots of sun and wind.
--
73, Cecil http://www.qsl.net/w5dxp

3825. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 18:49:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <_cnif.19157$BZ5.14535@newssvr13.news.prodigy.com>
Source record: 67422

Mark Sheffield wrote:
> I'm not quite balanced in the feed, as I'm using coax out to the
> dipole feedpoint, but probably close enough.

A W2DU choke would probably eliminate the need for
an RF ground and also be good engineering practice.
--
73, Cecil http://www.qsl.net/w5dxp

3826. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 19:35:22 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <_Tnif.606420$xm3.396820@attbi_s21>
Source record: 67423

I have a 2nd floor shack too, and the antenna is a ground mounted vertical (Butternut HF6V). I use a W2DU choke to connect my coax feedline to the vertical and a 2nd W2DU choke between my Orion and Drake L-4B. Finally, I found that the only way to prevent feedback on SSB was to NOT connect my system to the #8 ground wire that runs out the window sill and down to a ground rod.

"Cecil Moore" <mycall@arrl.net> wrote in message news:_cnif.19157$BZ5.14535@newssvr13.news.prodigy.com...
> Mark Sheffield wrote:
>> I'm not quite balanced in the feed, as I'm using coax out to the
>> dipole feedpoint, but probably close enough.
>
> A W2DU choke would probably eliminate the need for
> an RF ground and also be good engineering practice.
> --
> 73, Cecil http://www.qsl.net/w5dxp

3827. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 19:50:26 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <f23ea$438a0e04$97d56a33$20786@ALLTEL.NET>
Source record: 67424

A choke balun allows you to go from unbalanced to balanced. If you check Walter Maxwells site and review Chapter 21 (IIRC) of reflections. He gives a test setup that will aid in understanding.

"RB" <rbig@bellsouth.nospam.net> wrote in message news:Tddif.89036$ty1.39736@bignews1.bellsouth.net...
> Good replies. Thanks.
>
> So: does the commonly available choke balun (round cylinder with coax
> connectors on each end, and ferrite beads inside the cylinder) allow us to
> put unbalanced feed in one end, and get balanced feed on the other?
>
> Or, are they ununs?
>
>

3828. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 20:03:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <jioif.24893$q%.23199@newssvr12.news.prodigy.com>
Source record: 67425

John, N9JG wrote:
> Finally, I
> found that the only way to prevent feedback on SSB was to NOT connect my
> system to the #8 ground wire that runs out the window sill and down to a
> ground rod.

Yep, everyone should realize that a ground wire is N*1/4 wavelength
at certain frequencies, and at those frequencies, is an RF transformer
that locates the standing-wave voltage maximum points at the transmitter. (ouch!)
That's what artificial grounds do - change that *electrical* length
to N*1/2 wavelength. For anyone insisting on an RF ground for an upper
floor, an artificial ground is probably the way to go. I, myself, prefer
balanced antennas and feedlines.
--
73, Cecil http://www.qsl.net/w5dxp

3829. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 20:21:39 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <70f23$438a1555$97d56a33$23027@ALLTEL.NET>
Source record: 67326

We are having a real cold snap here in South Carolina, it only reached 73 today.

"Cecil Moore" <mycall@arrl.net> wrote in message news:Y8nif.19155$BZ5.18183@newssvr13.news.prodigy.com...
> Scott wrote:
> > Maybe it's warm where you are, but antenna modification season has ended
> > here in Wisconsin (for the most part!)
>
> Here in East Texas close to Texas A&M, the expected high
> is 84 degrees today with lots of sun and wind.
> --
> 73, Cecil http://www.qsl.net/w5dxp

3830. Re: Source for good trap boots for tri-bander???

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 20:23:52 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <4464e$438a15da$97d56a33$23125@ALLTEL.NET>
Source record: 67327

Check with your local motorcycle shop. They have boots for the the front
shock absorbers that I have used in the past.

"Dave - KB8NNU" <kb8nnu@charter.net> wrote in message
news:1133101079.399556.132760@z14g2000cwz.googlegroups.com...
> Howdy all....I am in the process of rebuilding an older tribander that
> I have and need some input. I want to replace all of the trap boots,
> but don't know where to get such a thing. I'm not sure what kind of
> antenna it is. I originally thought it was a TA-33 jr...??? The traps
> have a diameter of 1.5'' and the anntenna diameter is .75''. Any help
> would greatly be appreciated.
>
> Thanks,
>
> Dave - KB8NNU
>

3831. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 20:27:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmd4s4fj1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67328

```
> I think it's all quite amusing actually.
>
> tom
> K0TAR
==================================

So do I.
----
Reg, G4FGQ
```

3832. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 20:34:31 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <uvudnc1_ct2ghRfenZ2dnUVZ_tudnZ2d@vnet-inc.com>
Source record: 67329

Just starting antenna mod session here in Montana. One is required to have the temp no higher than zero, winds in excess of 30 mph and snowing so that vis is down to a max of 1/4 mile. With those conditions the antenna you erect is bound to be just darn near perfect, why, because you have shown the antenna gods that you are truly worthy.

Sam

3833. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 21:13:28 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <Ehpif.10941$KP1.7613@bignews5.bellsouth.net>
Source record: 67330

"Cecil Moore" <mycall@arrl.net> wrote in message
news:Y8nif.19155$BZ5.18183@newssvr13.news.prodigy.com...
> Scott wrote:
>> Maybe it's warm where you are, but antenna modification season has ended
>> here in Wisconsin (for the most part!)
>
> Here in East Texas close to Texas A&M, the expected high
> is 84 degrees today with lots of sun and wind.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Ya like to rub it in, eh? ;)

Jerry (Here, 40's with a chilly rain. :( )

3834. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 21:30:34 UTC
From: Korbin Dallas <korbindallas@null.org>
Message-ID: <pan.2005.11.27.21.30.33.956522@null.org>
Source record: 67331

On Thu, 24 Nov 2005 19:01:57 -0600, Tom Ring wrote:

> And from what I've seen, nothing has changed, Bose is still selling
> millions of dollars of crap.
>
> tom
> K0TAR

Man ain't that the truth.
I have never understood this Bose thing, the speakers are some of the
worst ones on the market and they are flying out the doors all day long.

Its all marketing BS like the Wizbang cables to hook things up.

--
Korbin Dallas
The name was changed to protect the guilty.

3835. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 21:50:38 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1133128238.294824.5790@o13g2000cwo.googlegroups.com>
Source record: 67332

RB wrote:
> I've recently put up a 140' dipole fed with ladderline. My tuner is
> separate from my rig, and is an unbalanced unit. So, I use a balun on the
> tuner output to hook the ladderline to.
>
> I've been told that I should have a voltage balun in this application. I
> was surprised to hear this, as I expected to hear use a current balun.
>
> Is the voltage balun the right one for this application?

Dear RB,
I was working on a "linear-loaded" dipole recently. I
got pretty confused
with many, many different opinions. I would suggest that you read
an article in
an 1995 QST about, "How to get the MOST out of your "T" type
antenna tuner"
IF you go to the web site and go to the search engine, you will find
this issue.
I wish that I would have found it sooner. It explained
the "process" very
well. I have photo-copied the article for passing around at my
local club. It is
very good.
Getting on 160m with a very small lot IS a
CHALLANGE ! I've
learned a whole bunch by searching the net. Most of it involves
trying this an'
that. BUT, we all need a place to start.

73's, Paladin

3836. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:03:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <43qif.25182$Zv5.24376@newssvr25.news.prodigy.net>
Source record: 67333

Korbin Dallas wrote:
> I have never understood this Bose thing, the speakers are some of the
> worst ones on the market and they are flying out the doors all day long.
> Its all marketing BS like the Wizbang cables to hook things up.

Sharper Image does the same thing. Their room air filter has got
to be close to the worst-case design I have ever seen. The guy
in their commercial who says, "I have tried every air purifier
on the market and ..." is an UNETHICAL LYING SOB!!!! 'Course, most
TV commercials are made by unethical liars. I doubt that many
of the alleged cancer sufferers actually have cancer. They look
more like professional models to me.
--
73, Cecil http://www.qsl.net/w5dxp

3837. Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:05:08 UTC
From: Wayne Watson <sierra_mtnview@earthlink.net>
Message-ID: <o4qif.1890$Hk1.1683@newsread1.news.pas.earthlink.net>
Source record: 67334

I hardly know where to start with this topic. If one picks up some of the fairly popular (available?) books on the matter, the authors invariably start throwing different types of antennas at the reader, yagi, helical, dipole, folded dipole, parabolic, loop, dish, microwave, quads, etc. For example, I'm looking at an older book on the topic I bought some 20 years ago, The Radio Amateur Handbook by Orr and Cowan. The book is basically for builders. Many such books are. What about the underlying methodology behind this? More generally, here's my question.

I would guess that in the beginning (late 1800s) the simple dipole was it. As years passed, the complexity of antennas has increased. What was the driving force for these changes? For example, how did the inventor of the Yagi (Yagi-Uda) ever dream up the idea for the antenna? Was it the application of theory or did he just get lucky? In fact, is there some underlying theory that drives the design of antennas? For example, the computation of radiation patterns. I'm sure these days the computer would be an aid, but what theory and application drove the development of varied designs before 1960? When did Maxwell's equations seriously get used for this? What suggested a tin can could become an antenna? How did anyone think up the idea of a microwave antenna?

I would think that in the case of antennas that are used for different parts of the EM spectrum a driving force would be the consideration of the wave itself. For example, it would seem unlikely an x-ray antenna (I believe there is such a thing on one of the space satellites used in astronomy) would be anything like one used to receive TV. Certainly the 'antenna' to collect visible light is different than that for AM radio.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3838. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:12:11 UTC
From: jgboyles@aol.com
Message-ID: <1133129531.934671.87410@o13g2000cwo.googlegroups.com>
Source record: 67335

Cecil Moore wrote:
> Yep, everyone should realize that a ground wire is N*1/4 wavelength
> at certain frequencies, and at those frequencies, is an RF transformer
> that locates the standing-wave voltage maximum points at the transmitter. (ouch!)
> That's what artificial grounds do - change that *electrical* length
> to N*1/2 wavelength. For anyone insisting on an RF ground for an upper
> floor, an artificial ground is probably the way to go. I, myself, prefer
> balanced antennas and feedlines.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil, Don't you mean that when a ground wire is N*1/4 wavelength at
a particular frequency it locates the voltage mininum (current maximum)
at the transmitter, and the voltage maximum well away from the
transmitter. Artifical grounds use a series LC circuit to try and tune
your ground wire to look like 1/4 wave. If they change the
electrical length to 1/2 wave then you would have a voltage maximum
at the transmitter (ouch!).
Gary N4AST

3839. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:13:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <qcqif.25186$Zv5.9929@newssvr25.news.prodigy.net>
Source record: 67336

Wayne Watson wrote:
> For example, it would seem unlikely an x-ray antenna (I believe
> there is such a thing on one of the space satellites used in astronomy)
> would be anything like one used to receive TV. Certainly the 'antenna' to
> collect visible light is different than that for AM radio.

Is it easier to pick up a twig than to pick up a tree?
Methinks you need a better understanding of wavelength.
--
73, Cecil http://www.qsl.net/w5dxp

3840. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:18:21 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e3fe8$438a30af$97d56a33$27086@ALLTEL.NET>
Source record: 67337

Come on Cecil, next you will be telling me there is no Santa Clause...

"Cecil Moore" <mycall@arrl.net> wrote in message
news:43qif.25182$Zv5.24376@newssvr25.news.prodigy.net...
> Korbin Dallas wrote:
> > I have never understood this Bose thing, the speakers are some of the
> > worst ones on the market and they are flying out the doors all day long.
> > Its all marketing BS like the Wizbang cables to hook things up.
>
> Sharper Image does the same thing. Their room air filter has got
> to be close to the worst-case design I have ever seen. The guy
> in their commercial who says, "I have tried every air purifier
> on the market and ..." is an UNETHICAL LYING SOB!!!! 'Course, most
> TV commercials are made by unethical liars. I doubt that many
> of the alleged cancer sufferers actually have cancer. They look
> more like professional models to me.
> --
> 73, Cecil http://www.qsl.net/w5dxp

3841. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:20:18 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <438A3123.AC0E860D@shaw.ca>
Source record: 67338

Cecil Moore wrote:
>
> John, N9JG wrote:
> > Finally, I
> > found that the only way to prevent feedback on SSB was to NOT connect my
> > system to the #8 ground wire that runs out the window sill and down to a
> > ground rod.
>
> Yep, everyone should realize that a ground wire is N*1/4 wavelength
> at certain frequencies, and at those frequencies, is an RF transformer
> that locates the standing-wave voltage maximum points at the transmitter. (ouch!)
> That's what artificial grounds do - change that *electrical* length
> to N*1/2 wavelength. For anyone insisting on an RF ground for an upper
> floor, an artificial ground is probably the way to go. I, myself, prefer
> balanced antennas and feedlines.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Why not run two ground wires in parallel -- one twice as long as the
other? When one is Hi-Z the other will be Lo-Z and vice versa.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3842. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:21:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Zjqif.25188$Zv5.17073@newssvr25.news.prodigy.net>
Source record: 67339

jgboyles@aol.com wrote:
> Cecil, Don't you mean that when a ground wire is N*1/4 wavelength at
> a particular frequency it locates the voltage mininum (current maximum)
> at the transmitter, and the voltage maximum well away from the
> transmitter.

Nope, Mother Earth dictates the boundary conditions. A well-designed
ground system positions the current maximum point at the ground system,
i.e. minimum impedance to ground.

The voltage maximum point would, therefore, be located at the transmitter,
not a desirable condition. Of course, if you are not actually connected/
coupled to Mother Earth, your milage may vary.
--
73, Cecil http://www.qsl.net/w5dxp

3843. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:28:20 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <8qqif.25193$Zv5.10176@newssvr25.news.prodigy.net>
Source record: 67340

Fred W4JLE wrote:
> Come on Cecil, next you will be telling me there is no Santa Clause...

It's hard to argue that there's no Santa Claus when one can
observe a real live Santa Claus in every mall. What's seems
harder to argue is the existence of a God whom nobody alive
has ever sensed with any of their allegedly God-given senses.
:-) (The Devil made me say that.)
--
73, Cecil http://www.qsl.net/w5dxp

3844. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:35:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Owqif.25198$Zv5.22480@newssvr25.news.prodigy.net>
Source record: 67341

Irv Finkleman wrote:
> Why not run two ground wires in parallel -- one twice as long as the
> other? When one is Hi-Z the other will be Lo-Z and vice versa.

That will help on some frequencies but it is akin to trying to
erect a 1/2WL fan dipole for all frequencies - can't be done. Sooner
or later, you will run into a frequency where length #1 is N*1/4WL
and length #2 is (N+1)1/4WL. "It's not nice to fool Mother Nature."
--
73, Cecil http://www.qsl.net/w5dxp

3845. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:45:40 UTC
From: jgboyles@aol.com
Message-ID: <1133131540.142286.97990@f14g2000cwb.googlegroups.com>
Source record: 67342

Cecil Moore wrote:
> jgboyles@aol.com wrote:
> > Cecil, Don't you mean that when a ground wire is N*1/4 wavelength at
> > a particular frequency it locates the voltage mininum (current maximum)
> > at the transmitter, and the voltage maximum well away from the
> > transmitter.
>
> Nope, Mother Earth dictates the boundary conditions. A well-designed
> ground system positions the current maximum point at the ground system,
> i.e. minimum impedance to ground.
>
> The voltage maximum point would, therefore, be located at the transmitter,
> not a desirable condition. Of course, if you are not actually connected/
> coupled to Mother Earth, your milage may vary.
> --
> 73, Cecil http://www.qsl.net/w5dxp

I thought we were talking about 2nd floor, not well designed ground
systems, with the ground NOT connected to earth. But it is the best
you can do. That is where an artifical ground can help by locating
the voltage minimum at the transmitter.
Gary N4AST

3846. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 22:57:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cRqif.25210$Zv5.5646@newssvr25.news.prodigy.net>
Source record: 67343

jgboyles@aol.com wrote:
> That is where an artifical ground can help by locating
> the voltage minimum at the transmitter.

Yes, that's true. An artifical ground equalizes the voltage
at the ground point AND at the transmitter so both are
voltage minimum (current maximum) points. That's exactly
what an antenna tuner does when feeding a resonant 1/2WL
dipole fed with ladder-line through an antenna tuner. I
hope I didn't misunderstand what you were trying to say.
--
73, Cecil http://www.qsl.net/w5dxp

3847. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 23:01:51 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <zVqif.1905$Hk1.1589@newsread1.news.pas.earthlink.net>
Source record: 67344

Cecil Moore wrote:

> Wayne Watson wrote:
>
>> For example, it would seem unlikely an x-ray antenna (I believe
>> there is such a thing on one of the space satellites used in astronomy)
>> would be anything like one used to receive TV. Certainly the 'antenna' to
>> collect visible light is different than that for AM radio.
>
>
> Is it easier to pick up a twig than to pick up a tree?
> Methinks you need a better understanding of wavelength.
Why not provide it then?

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3848. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 23:19:04 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <I9rif.1910$Hk1.1045@newsread1.news.pas.earthlink.net>
Source record: 67345

W. Watson wrote:

> Cecil Moore wrote:
>
>> Wayne Watson wrote:
>>
>>> For example, it would seem unlikely an x-ray antenna (I believe
>>> there is such a thing on one of the space satellites used in astronomy)
>>> would be anything like one used to receive TV. Certainly the
>>> 'antenna' to
>>> collect visible light is different than that for AM radio.
>>
>>
>>
>> Is it easier to pick up a twig than to pick up a tree?
>> Methinks you need a better understanding of wavelength.
>
> Why not provide it then?
>
Let me try to make it easier on you. Why do I have to resort to using an optical telescope to see a star rather than using a radio receiver that might work in the same part of EM spectrum, visual light? After all an EM wave is an EM wave, isn't it? Shouldn't we be able to use the same equipment to observe the entire spectrum? Before I suggest an answer in this case, I'll let you have a go at it.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3849. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 23:20:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11okfpommc4nd0b@corp.supernews.com>
Source record: 67346

Wayne Watson wrote:
> I hardly know where to start with this topic. If one picks up some of
> the fairly popular (available?) books on the matter, the authors
> invariably start throwing different types of antennas at the reader,
> yagi, helical, dipole, folded dipole, parabolic, loop, dish,
> microwave, quads, etc. For example, I'm looking at an older book on
> the topic I bought some 20 years ago, The Radio Amateur Handbook by
> Orr and Cowan. The book is basically for builders. Many such books
> are. What about the underlying methodology behind this? More
> generally, here's my question.
>
> I would guess that in the beginning (late 1800s) the simple dipole
> was it. As years passed, the complexity of antennas has increased.
> What was the driving force for these changes?

Since the beginning of radio, antenna design has been driven mostly by specific needs, to name just a very few examples:

-- By broadcasters to increase their coverage areas
-- By military users:
to increase portability and range
to decrease detectable emissions in some directions
to allow broadband performance for frequency hopping
-- By satellite system designers to concentrate limited energy in particular regions.
-- By cell phone companies to provide coverage to well-defined regions

The list is endless.

Take a trip to your local library and get an index to the I.R.E. (now the IEEE) Transactions on Antennas and Propagation. You'll see that many advances were made in the '20s and '30s in AM broadcast antennas, in the '40s and '50s in aircraft antennas, in the '60s and '70s in satellite antennas. Much of today's development work involves compact antennas for the wireless networks now proliferating.

Antennas provide a limitless pool of tradeoffs involving size, cost, ruggedness, and a large handful of performance characteristics such as directionality, gain, and bandwidth. This pretty much guarantees that new designs will continue to be created.

> For example, how did the inventor of the Yagi (Yagi-Uda) ever dream
> up the idea for the antenna? Was it the application of theory or did
> he just get lucky?

How is any creative design accomplished? How did Armstrong come up with the idea for FM, Watt for the steam engine? I've spent most of my career doing circuit design, and it requires a deep knowledge of theory, but also involves a creative synthesis not unlike what an artist has in deciding what to paint or an architect in deciding what form a building will take.

> In fact, is there some underlying theory that drives the design of
> antennas? For example, the computation of radiation patterns.

You're confusing design and analysis. Design is driven primarily by a need for a particular set of performance parameters. Analysis is done by computation. Analysis is an important part of the design process, in that a design, once created, is analyzed to see if and how well it meets design goals. The design is then often modified and re-analyzed many times until the goal is reached, the design abandoned, or the goal redefined. And yes, indeed, there's solid theory underlying antenna operation.

> I'm sure these days the computer would be an aid, but what theory and
> application drove the development of varied designs before 1960?

Hopefully what I've said above has answered this. A lot more physical modeling and experimentation were required before computers were available, but design was still driven by need, and theory hasn't changed significantly for many decades.

There's no magic computer program that you can put some numbers into and out comes the optimum aircraft design, or bridge, or car, or house. Antennas are no different. Computers can be used to optimize a particular class of antenna (e.g., Yagi or patch) for a particular set of performance criteria, just as they can be used to fine-tune an aircraft or bridge once the basic structure is designed. But not to design an antenna from nothing.

> When did Maxwell's equations seriously get used for this?

They were used long ago as the basis of equations more directly applicable to antenna analysis, and those equations are still used by modern computer programs. In that sense, Maxwell's equations are still being used, although not directly.

> What suggested a tin can could become an antenna?

It's obvious to anyone who understands the most basic of principles. Any conductor can act as an antenna. A tin can is a conductor.

> How did anyone think up the idea of a microwave antenna?

Actually, some of the first experiments with radio waves by Heinrich Hertz were done in the microwave region, so some of the very first antennas were microwave antennas. As for modern microwave antennas, once you have microwave energy (which first became available at high power levels with the invention of the cavity magnetron in 1940), the need for an antenna becomes obvious.

> I would think that in the case of antennas that are used for
> different parts of the EM spectrum a driving force would be the
> consideration of the wave itself. For example, it would seem unlikely
> an x-ray antenna (I believe there is such a thing on one of the
> space satellites used in astronomy) would be anything like one used
> to receive TV. Certainly the 'antenna' to collect visible light is
> different than that for AM radio.

All antennas obey the same fundamental physical laws. But you're correct that the wavelength of the signal to be transmitted or received plays a big role in determining which antenna designs are practical and optimum. That's just one of the many factors that have to be considered when designing an antenna. All bridges obey the same physical laws, but the optimum design for a bridge crossing a creek is quite different from one crossing the Golden Gate.

In fact, if you change "antenna" to "bridge" in your questions, you'll probably find most of the answers to be pretty obvious.

Roy Lewallen, W7EL

3850. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 23:47:54 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-7F3505.17475427112005@newsclstr02.news.prodigy.com>
Source record: 67347

In article <Y8nif.19155$BZ5.18183@newssvr13.news.prodigy.com>,
Cecil Moore <mycall@arrl.net> wrote:

> > Maybe it's warm where you are, but antenna modification season has ended
> > here in Wisconsin (for the most part!)
>
> Here in East Texas close to Texas A&M, the expected high
> is 84 degrees today with lots of sun and wind.

Winter was cancelled in 2004 due to lack of participation and I think we
are in for the same this year. Like Cecil, the high in the Capital was
about 86 yesterday.

3851. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-27 23:54:34 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <_Grif.19209$BZ5.11403@newssvr13.news.prodigy.com>
Source record: 67348

W. Watson wrote:
> W. Watson wrote:
>>> Wayne Watson wrote:
> Let me try to make it easier on you.

Are you bipolar? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3852. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 00:44:58 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <Bv6dnbuiW-M7zxfenZ2dnUVZ_sCdnZ2d@bright.net>
Source record: 67349

Thanks...just what I needed to hear ;) Why am I here, again??

Scott

Cecil Moore wrote:

> Scott wrote:
>
>> Maybe it's warm where you are, but antenna modification season has
>> ended here in Wisconsin (for the most part!)
>
>
> Here in East Texas close to Texas A&M, the expected high
> is 84 degrees today with lots of sun and wind.

3853. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 00:47:26 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <438A539F.B05A771D@shaw.ca>
Source record: 67350

Cecil Moore wrote:
>
> Irv Finkleman wrote:
> > Why not run two ground wires in parallel -- one twice as long as the
> > other? When one is Hi-Z the other will be Lo-Z and vice versa.
>
> That will help on some frequencies but it is akin to trying to
> erect a 1/2WL fan dipole for all frequencies - can't be done. Sooner
> or later, you will run into a frequency where length #1 is N*1/4WL
> and length #2 is (N+1)1/4WL. "It's not nice to fool Mother Nature."
> --
> 73, Cecil http://www.qsl.net/w5dxp

OK then, I'll use 3 wires and take my chances! :-)

Irv
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3854. Re: Got Lucky on Six meters w/Fan Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 01:26:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Q0tif.20874$7h7.3791@newssvr21.news.prodigy.com>
Source record: 67351

Scott wrote:
> Thanks...just what I needed to hear ;) Why am I here, again??

August 2006? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3855. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 02:02:13 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Fytif.27575$tV6.13178@newssvr27.news.prodigy.net>
Source record: 67352

Reg Edwards wrote:
>>I think it's all quite amusing actually.
>>
>>tom
>>K0TAR
>
> ==========
>
> So do I.
> ----
> Reg, G4FGQ
>
>

It ceased to be amusing 500 posts ago, but Reg has
a point, however strained.
73,
Tom Donaly, KA6RUH

3856. Re: 30/20 vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 02:02:58 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <mztif.5048$q93.1516550@twister.southeast.rr.com>
Source record: 67353

You did not say what your vertical radiator material is. Make it out of wire (support it with PVC tubing), then you can put up 2 vertical radiators, one for 20m, the other for 30m fed by the same coax. I guess this would be a "Fan Vertical". Its based on a W6SAI design published in 1990. I've done it with 10/15/20m radiators and it works well with elevated radials made from TV rotator wire.

Good luck,

Bill, W4WNT
<eternalsquire@comcast.net> wrote in message
news:1133023175.424981.104610@g43g2000cwa.googlegroups.com...
> Hi,
>
> For 20m I am planning a quarter wavelength vertical radiator with 4
> eighth wavelength radials, mounted 12 feet high.
>
> If I add another 4 radials cut an eight wavelength for 30m, will it be
> easier to operate on 30?
>
> Thanks,
>
> The Eternal Squire
>

3857. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 03:56:42 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <3f67$438a7ffd$97d56a33$32124@ALLTEL.NET>
Source record: 67354

He has been sensed by the heart when a child is delivered from an illness, a mother gives birth to a newborn child, and in the smile of someone you have given a kindness.

Just remember, he will always believe in you...

"Cecil Moore" <mycall@arrl.net> wrote in message
news:8qqif.25193$Zv5.10176@newssvr25.news.prodigy.net...
> Fred W4JLE wrote:
> > Come on Cecil, next you will be telling me there is no Santa Clause...
>
> It's hard to argue that there's no Santa Claus when one can
> observe a real live Santa Claus in every mall. What's seems
> harder to argue is the existence of a God whom nobody alive
> has ever sensed with any of their allegedly God-given senses.
> :-) (The Devil made me say that.)
> --
> 73, Cecil http://www.qsl.net/w5dxp

3858. DAVE MUNRO(E) Unluckiest guy on the Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 04:06:24 UTC
From: WRC <dogwoodwind@yahoo.com>
Message-ID: <9sednWwZHuewHxfenZ2dnUVZ_sCdnZ2d@centurytel.net>
Source record: 67355

Have you heard about UNLUCKY, DAVE MUNRO(E) of Hiawatha or Keene, Ontario. He appears to be the most UNLUCKIEST GUY on the INTERNET, never receiving any money or radio equipment that is mailed to him. Poor Guy. If you know about DAVE and his hardships, please visit http://scammerdave.com and leave your comments. If you mailed DAVE a Check or Money Order and he never received it, we would like to know your story. If you ever traded Radios with DAVE and your's got lost in the mail, We would like to hear your story. Just visit http://scammerdave.com and post your comments.
Thanks,
N4WRC

3859. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 10:05:01 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1133172301.596692.162880@f14g2000cwb.googlegroups.com>
Source record: 67356

I'll try to answer that.
Voltage baluns are designed to provide equal voltages on the
outputs, such as those needed for balanced antennas. They help to keep
the balance against external influences, such as nearby metal bodies
and such.
Current balun are used with unbalanced loads, such as windom
antennas, when it's needed to qeep the currents as equal as possible.
This is done in order to minimize radiation from the line, which is
more corrent dependent than voltage dependent.
Choke baluns serve to break the path between the load and the
source so as to prevent energy to flow in a common mode fashion aleng
the line (usually from the load to the source). the name itself-the
full name, that is- " common mode choke" is self explanatory.
Alex 4Z5KS

3860. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 10:21:08 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1133173268.768403.217280@f14g2000cwb.googlegroups.com>
Source record: 67357

Gentlemen:
fFirst of all, stop bickering.
Second, you can't measure SWR. you can measure incident power (going to the load) and reflected power power (coming back from the load). This is done with a 20$ CB type power meter or with a 60 kilobucks network analyzer, doesn't really matter!
You can CALCULATE the SWR using the formula. That, you can do!!!
what we call SWR meter s are actually directional couplers that employ one form or another of phase and magnitude comparisons to separate incident from reflected power and give a relative reading. The measurement itself is meaningless without calibration and the coupler operates in a ratiometric manner, i.e. the output is based on ratios of signals, not their absolute value!
Alex 4Z5KS

3861. Re: is voltage balun right choice?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 11:02:23 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1133172296.494418.198450@g14g2000cwa.googlegroups.com>
Source record: 67358

I'll try to answer that.
Voltage baluns are designed to provide equal voltages on the
outputs, such as those needed for balanced antennas. They help to keep
the balance against external influences, such as nearby metal bodies
and such.
Current balun are used with unbalanced loads, such as windom
antennas, when it's needed to qeep the currents as equal as possible.
This is done in order to minimize radiation from the line, which is
more corrent dependent than voltage dependent.
Choke baluns serve to break the path between the load and the
source so as to prevent energy to flow in a common mode fashion aleng
the line (usually from the load to the source). the name itself-the
full name, that is- " common mode choke" is self explanatory.
Alex 4Z5KS

3862. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 12:05:15 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <%nCif.2054$Hk1.1653@newsread1.news.pas.earthlink.net>
Source record: 67359

Roy Lewallen wrote:

> Wayne Watson wrote:
>
>> I hardly know where to start with this topic. If one picks up some of
>> the fairly popular (available?) books on the matter, the authors
>> invariably start throwing different types of antennas at the reader,
>> yagi, helical, dipole, folded dipole, parabolic, loop, dish,
>> microwave, quads, etc. For example, I'm looking at an older book on
>> the topic I bought some 20 years ago, The Radio Amateur Handbook by
>> Orr and Cowan. The book is basically for builders. Many such books
>> are. What about the underlying methodology behind this? More
>> generally, here's my question.
>>
>> I would guess that in the beginning (late 1800s) the simple dipole was
>> it. As years passed, the complexity of antennas has increased. What
>> was the driving force for these changes?
>
>
>
> Since the beginning of radio, antenna design has been driven mostly by
> specific needs, to name just a very few examples:
>
> -- By broadcasters to increase their coverage areas
> -- By military users:
> to increase portability and range
> to decrease detectable emissions in some directions
> to allow broadband performance for frequency hopping
> -- By satellite system designers to concentrate limited energy in
> particular regions.
> -- By cell phone companies to provide coverage to well-defined regions
>
> The list is endless.
>
> Take a trip to your local library and get an index to the I.R.E. (now
> the IEEE) Transactions on Antennas and Propagation. You'll see that many
> advances were made in the '20s and '30s in AM broadcast antennas, in the
> '40s and '50s in aircraft antennas, in the '60s and '70s in satellite
> antennas. Much of today's development work involves compact antennas for
> the wireless networks now proliferating.
>
> Antennas provide a limitless pool of tradeoffs involving size, cost,
> ruggedness, and a large handful of performance characteristics such as
> directionality, gain, and bandwidth. This pretty much guarantees that

> new designs will continue to be created.
>
>> For example, how did the inventor of the Yagi (Yagi-Uda) ever dream up
>> the idea for the antenna? Was it the application of theory or did he
>> just get lucky?
>
>
> How is any creative design accomplished? How did Armstrong come up with
> the idea for FM, Watt for the steam engine? I've spent most of my career
> doing circuit design, and it requires a deep knowledge of theory, but
> also involves a creative synthesis not unlike what an artist has in
> deciding what to paint or an architect in deciding what form a building
> will take.
>
>> In fact, is there some underlying theory that drives the design of
>> antennas? For example, the computation of radiation patterns.
>
>
> You're confusing design and analysis. Design is driven primarily by a
> need for a particular set of performance parameters. Analysis is done by
> computation. Analysis is an important part of the design process, in
> that a design, once created, is analyzed to see if and how well it meets
> design goals. The design is then often modified and re-analyzed many
> times until the goal is reached, the design abandoned, or the goal
> redefined. And yes, indeed, there's solid theory underlying antenna
> operation.
>
>> I'm sure these days the computer would be an aid, but what theory and
>> application drove the development of varied designs before 1960?
>
>
> Hopefully what I've said above has answered this. A lot more physical
> modeling and experimentation were required before computers were
> available, but design was still driven by need, and theory hasn't
> changed significantly for many decades.
>
> There's no magic computer program that you can put some numbers into and
> out comes the optimum aircraft design, or bridge, or car, or house.
> Antennas are no different. Computers can be used to optimize a
> particular class of antenna (e.g., Yagi or patch) for a particular set
> of performance criteria, just as they can be used to fine-tune an
> aircraft or bridge once the basic structure is designed. But not to
> design an antenna from nothing.
>
>> When did Maxwell's equations seriously get used for this?
>
>
> They were used long ago as the basis of equations more directly
> applicable to antenna analysis, and those equations are still used by
> modern computer programs. In that sense, Maxwell's equations are still

> being used, although not directly.
>
>> What suggested a tin can could become an antenna?
>
>
> It's obvious to anyone who understands the most basic of principles. Any
> conductor can act as an antenna. A tin can is a conductor.
>
>> How did anyone think up the idea of a microwave antenna?
>
>
> Actually, some of the first experiments with radio waves by Heinrich
> Hertz were done in the microwave region, so some of the very first
> antennas were microwave antennas. As for modern microwave antennas, once
> you have microwave energy (which first became available at high power
> levels with the invention of the cavity magnetron in 1940), the
> need for an antenna becomes obvious.
>
>> I would think that in the case of antennas that are used for different
>> parts of the EM spectrum a driving force would be the consideration of
>> the wave itself. For example, it would seem unlikely
>> an x-ray antenna (I believe there is such a thing on one of the space
>> satellites used in astronomy) would be anything like one used to
>> receive TV. Certainly the 'antenna' to collect visible light is
>> different than that for AM radio.
>
>
> All antennas obey the same fundamental physical laws. But you're correct
> that the wavelength of the signal to be transmitted or
> received plays a big role in determining which antenna designs are
> practical and optimum. That's just one of the many factors that have to
> be considered when designing an antenna. All bridges obey the same
> physical laws, but the optimum design for a bridge crossing a creek is
> quite different from one crossing the Golden Gate.
>
> In fact, if you change "antenna" to "bridge" in your questions, you'll
> probably find most of the answers to be pretty obvious.
>
> Roy Lewallen, W7EL
Thanks. Well said. Makes sense to me.
I have a very modest understanding of how antennas work, but from my
simplistic view I just find it a bit odd that if one thinks of an EM wave
shape and content (electric and magnetic) to all sorts of radiation that to
observe much of this radiation different devices are required. From my
underdeveloped perspective, I'd probably trying to design everything with
some wild combinations of dipoles. Maybe I'm thinking of (hoping for) some
grand unified radio or telescope (and methodology) that sucks up any EM wave
one can throw at it. One size fits all. Apparently, we've got a long way to
go on that. :-)

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3863. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 14:20:05 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <cd2mo1lntbr5huct8cjvgcp8c5h39enp71@4ax.com>
Source record: 67360

On Mon, 28 Nov 2005 12:05:15 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

> ...Maybe I'm thinking of (hoping for) some grand
> unified radio or telescope (and methodology) that
> sucks up any EM wave one can throw at it. One size
> fits all. Apparently, we've got a long way to go
> on that. :-)

The methodology (and perhaps the viewpoint) you are
looking for is... Optics.

From an Optics viewpoint, you're born with two antennas
in your head (that you are using to read this).

From an Optics viewpoint, a hole in a piece of cardboard
is an antenna (an aperture).

From an Optics viewpoint, radio antennas (monopoles,
dipoles, yagis, Sterba curtains) are just minor
peculiarities one encounters when wavelength becomes
"human-sized".

From an Optics viewpoint, we've been at this for an
awfully long time. Maxwell's equations and quantum
mechanics are just frosting on a very large cake. A
great deal of Physics has been devoted to studying
electromagnetic radiation over the centuries.

Unfortunately, the study of Optics is not for the
faint of heart. It leads directly into the heart of
the Physical Universe and things tend to get very
messy, and very mathematical. However, even from
the periphery, the insights are rewarding. Every
time you pick up a camera, you think "antenna".
Every time you see an incandescent lamp, you think
"antennas" (jillions of them). Every time you see
a satellite dish, you think "telescope". And so on...

Jim, K7JEB

3864. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 14:33:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmf4fr$4cu$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67361

"Saandy wrote

> you can't measure SWR.
==========

I am pleased you agree with me.

==========
> You can CALCULATE the SWR using the formula.
==========

But of what use is the SWR it after you have calculated it?

To what transmission line does it apply? Where is it? What are the locations of max-volts and min-volts? It does NOT apply to the line between transmitter and antenna. I suggest it exists only in your imagination. ;o)

It is the name of "SWR Meter" which leads to confusion, misunderstandings and arguments. The name says the instrument does something which it does not do. With the help of old-wives, novices are led astray and are stuck with incorrect ideas about standing-waves for the rest of the lives.

Just change the name to TLI (Transmitter Loading Indicator) which is what it is and does very well. The true meaning and associations of SWR will then emerge and all will be flooded with the light of reason.

Reg, G4FGQ.

3865. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 15:20:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PeFif.18860$D13.4424@newssvr11.news.prodigy.com>
Source record: 67362

K7JEB wrote:
> From an Optics viewpoint, we've been at this for an
> awfully long time. Maxwell's equations and quantum
> mechanics are just frosting on a very large cake. A
> great deal of Physics has been devoted to studying
> electromagnetic radiation over the centuries.

In particular:
An understanding of how RF reflections can be eliminated
by a 1/4WL series matching section can be had from
understanding how a 1/4WL layer of thin-film on glass can
eliminate coherent light reflections from the surface of
the thin-film. The irradiance equations which predict the
power distribution of light waves undergoing interference
can be used to understand RF energy flow in a transmission
line with reflections. Staring at oneself in a mirror
should convince any skeptical RF engineer that reflected
energy actually makes a round trip to the reflection point
and back and doesn't flow directly from the image-source
to the eye (or to the circulator load resistor). :-)
--
73, Cecil http://www.qsl.net/w5dxp

3866. Re: vert dipole vs vert

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 16:31:35 UTC
From: dt@dt.prohosting.com
Message-ID: <uu0dwvimw.fsf@dt.prohosting.com>
Source record: 67363

>>>>> "ml" == ml <m@di.net> writes:

ml> i was trying to figure loosly in real world case what the
ml> difference would be (generally speaking) between say a
ml> verticle all band commercial antenna on my roof (of my tall
ml> apt building) i'd naturally install it's radial kit

ml> vs

ml> a equal all band (yeah i know it'd be tall) virticle dipole
ml> (tweeked w/a tuner sgc at feedpoint

The commercial vertical probably uses traps or other means to act like a quarter wave ground plane on all bands. This would be roughly equivalent, performance-wise, to a separate vertical dipole cut for each band.

The issue with using the tuner is that a tall dipole used on a high frequency will throw a lot of energy up at high angles. On 15 and 10 meters, you'd probably rather have a nice low angle pattern. Then again, when those bands are open, you can usually afford to have an inefficient antenna as propagation tends to be excellent.

So, if you're looking to put up something fast and cheap, the dipole and tuner idea can certainly work. If you do that, try to keep the feed line perpendicular as long as you can before it drops down.

David
N5IZU
--
M.C. Escher had to walk to school, uphill both ways.

3867. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 16:55:40 UTC
From: richardharrison@webtv.net
Message-ID: <7955-438B368C-194@storefull-3256.bay.webtv.net>
Source record: 67364

Wayne Watson wrote:
"What about the underlying methodology behind this?"

Please refer to the 3rd. edition of "Antennas for All Applications", by John D. Kraus with a host of other professors, for answers to nearly all your questions. Kraus organizes antennas by types.

The dipole is the simplest complete antenna. But, the first practical antenna was patented by Marconi. He was interested in communications over the ocean, so only 1/2 of a dipole is needed. The return circuit is provided by the ocean. Sea water is nearly lossless.

Marconi imagined the antenna as a capacitor plate.. Then he discovered the antenna worked about as well with just the connectng wires inplace, without the plate. As the 19th century turned into the 20th century, Marconi spanned the Atlantic with signals from his antennas.

Best regards, Richard Harrison, KB5WZI

3868. Send spam this way

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 17:36:02 UTC
From: Christopher O'Callaghan <d.ocallaghan@iolfree.ie>
Message-ID: <dmff5uinv1@reader01.news.esat.net>
Source record: 67365

sallowswayne@aol.com

send all the spam you want to this address..I can then forward this to piss
of my enemy.....

3869. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 17:50:10 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <NqHif.46193$qw.19121@fed1read07>
Source record: 67366

I think many antenna designs arose as a matter of "necessity is the mother of invention"

For example here is a Yagi antenna quote from URL:

http://ieee.cincinnati.fuse.net/newsletters/200405.pdf

At Tohoku, Yagi initiated a research program in radio-electronics drawing on what he had learned from Barkhausen, Fleming, and Pierce. Other members of the faculty and advanced students, including Okabe and Shintaro Uda, became participants in a collective research effort. A perceived need for better communication between islands and with ships led them to focus on short wave communication with directive antennas. The Yagi group received financial support for the research from a private foundation in Sendai. In February 1926, Yagi and Uda published their first report on the wave projector antenna in a Japanese publication.

For the Cubical Quad see URL:

http://www.antennex.com/preview/Jan501/quad1.htm

Clarence Moore, the station engineer at HCJB in Quito, and some colleagues took along with them a stack of antenna and engineering texts and a Bible on a Sabbatical in 1942. Their urgent goal was to come up with an antenna that wouldn't consume itself by corona discharge when fed with high power, as was happening to their Yagi, at the high Andean altitude of their station. A full wave loop solved the problem.

Some remarkable antenna designs today because of the need to fit an antenna on a cell phone.

For direction finding, loops, interferometers, etc were needed

ETC
--
CL -- I doubt, therefore I might be !

"Wayne Watson" <sierra_mtnview@earthlink.net> wrote in message news:o4qif.1890$Hk1.1683@newsread1.news.pas.earthlink.net...
>I hardly know where to start with this topic. If one picks up some of the
> fairly popular (available?) books on the matter, the authors invariably
> start throwing different types of antennas at the reader, yagi, helical,
> dipole, folded dipole, parabolic, loop, dish, microwave, quads, etc. For
> example, I'm looking at an older book on the topic I bought some 20 years
> ago, The Radio Amateur Handbook by Orr and Cowan. The book is basically
> for
> builders. Many such books are. What about the underlying methodology

> behind
> this? More generally, here's my question.
>
> I would guess that in the beginning (late 1800s) the simple dipole was it.
> As years passed, the complexity of antennas has increased. What was the
> driving force for these changes? For example, how did the inventor of the
> Yagi (Yagi-Uda) ever dream up the idea for the antenna? Was it the
> application of theory or did he just get lucky? In fact, is there some
> underlying theory that drives the design of antennas? For example, the
> computation of radiation patterns. I'm sure these days the computer would
> be
> an aid, but what theory and application drove the development of varied
> designs before 1960? When did Maxwell's equations seriously get used for
> this? What suggested a tin can could become an antenna? How did anyone
> think
> up the idea of a microwave antenna?
>
> I would think that in the case of antennas that are used for different
> parts
> of the EM spectrum a driving force would be the consideration of the wave
> itself. For example, it would seem unlikely an x-ray antenna (I believe
> there is such a thing on one of the space satellites used in astronomy)
> would be anything like one used to receive TV. Certainly the 'antenna' to
> collect visible light is different than that for AM radio.
>
> --
> Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
> (121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
> Obz Site: 39&#65533; 15' 7" N, 121&#65533; 2' 32" W, 2700 feet
>
> Traveling in remote places in the winter. What's the best
> tool to carry with you? An axe.
> -- Survivorman, Discovery (SCI) Channel
>
> Web Page: <home.earthlink.net/~mtnviews>
>
>
>

3870. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 17:54:35 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <vvHif.6543$6e5.3440@trnddc09>
Source record: 67367

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dmf4fr$4cu$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Saandy wrote
>
>> you can't measure SWR.
> ==
>
> I am pleased you agree with me.
>
> ==
>> You can CALCULATE the SWR using the formula.
> ==
>
> But of what use is the SWR it after you have calculated it?
>
> To what transmission line does it apply? Where is it? What are the
> locations of max-volts and min-volts? It does NOT apply to the line
> between transmitter and antenna. I suggest it exists only in your
> imagination. ;o)
>
> It is the name of "SWR Meter" which leads to confusion,
> misunderstandings and arguments. The name says the instrument does
> something which it does not do. With the help of old-wives, novices
> are led astray and are stuck with incorrect ideas about standing-waves
> for the rest of the lives.
>
> Just change the name to TLI (Transmitter Loading Indicator) which is
> what it is and does very well. The true meaning and associations of
> SWR will then emerge and all will be flooded with the light of reason.
> ----
> Reg, G4FGQ.

Hi Reg

I recognize that you know far more about VSWR and measuring complex load
impedances than I do.
I'm writing this to represent the "other side" of an arguement that states
that VSWR *cant* be measured. I claim that VSWR *can* be measured and that
VSWR can be used to identify the impedance terminating the transmission
line.

Jerry

3871. Beginners Antenna Quest's (for listening only)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 18:45:38 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <4vOdnaymcczQzRbenZ2dnUVZ_sudnZ2d@comcast.com>
Source record: 67368

Hello:

Really new at this, and not really savy on antennas at all.
Trying to learn, but sure is a complicated subject.

Do sw listening only, just about anywhere below 30 MHz. No preferred
direction.
No transmitting.

Presently have a "random length" horiz. wire running around the inside of my
attic. Live in a typical New England colonial.
Goes around the 4 walls, and is stapled every few feet to a wooden roof
support joist.
Probably about 40' x 25' x40' x 25' approximately.

Not connected at the end, so I guess can't be considered a true loop.

Questions:

a. Does stapling to the wood degrade performance ? (wire is insulated)

b. Does the roof degrade performance ? How about when wet ?

c. Would you expect considerably better performance if this exact same
configuration was outdoors, at the same height ?

d. Would it be better if it were soldered back at the beginning, thus
making a true horiz loop (with about a 10 foot vertical run to the receiver
? Why ?

And I guess i should ask: For a single straight random length wire, is the
most sensitivity perpendicular to the wire direction ?
(assuming20 feet off theground, and perhaps 60 feet in length)

Would you expect this to be much better than the indoor configuration I now
have ? Why ?

Is there a good pix on the web showing the lobes for this configuration;
looked, but couldn't find a simple enough one for me to really understand.

Much thanks; appreciate the help,
B.

3872. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 18:51:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <6llif.25353$Zv5.17910@newssvr25.news.prodigy.net>
Source record: 67369

Jerry Martes wrote:
> I claim that VSWR *can* be measured and that
> VSWR can be used to identify the impedance terminating the transmission
> line.

The tuner SWR meter only indicates the SWR on the 50 ohm coax
between the transmitter and the tuner. However, I have an SWR
meter on the antenna side of my tuner and it does indeed indicate
the SWR on my transmission line.

XMTR--SWR meter#1--tuner--SWR meter#2--50 ohm coax to a G5RV

SWR meter#2 does indeed indicate the SWR on the coax feed to
my G5RV. It obviously does not indicate the SWR at the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

3873. Re: Station ground/2nd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 18:55:08 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-EE938B.09553028112005@netnews.worldnet.att.net>
Source record: 67370

In article <438A539F.B05A771D@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
wrote:

> Cecil Moore wrote:
> >
> > Irv Finkleman wrote:
> > > Why not run two ground wires in parallel -- one twice as long as the
> > > other? When one is Hi-Z the other will be Lo-Z and vice versa.
> >
> > That will help on some frequencies but it is akin to trying to
> > erect a 1/2WL fan dipole for all frequencies - can't be done. Sooner
> > or later, you will run into a frequency where length #1 is N*1/4WL
> > and length #2 is (N+1)1/4WL. "It's not nice to fool Mother Nature."
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> OK then, I'll use 3 wires and take my chances! :-)
>
> Irv

If you are on in a building that has prestressed concrete floors,
and coloums, try using the ReBar in the concrete as your RF Ground.
When I built my house on a concrete slab, before the pour I brought
up a steel strap bonded to the rebar and steel mesh in the radio room.
it was a very effective RF Ground clear down to 500Khz.

Bruce in alaska
--
add a <2> before @

3874. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 19:15:44 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmftg8bcb1@news.service.uci.edu>
Source record: 67282

Roy Lewallen wrote:

> Most authors explain how a wave is generated, then resort to reciprocity
> to explain the reception process. But a clear and simple direct
> explanation appears in Bailey, _TV and Other Receiving Antennas_ (pp.
> 141-2), of what happens when an electromagnetic wave strikes a conductor:
>
> "The second, and equally important effect [the first being reflection of
> much of the incident energy] is that some energy /does/ enter the outer
> skin of the conductor. That part of the energy, which is not reflected,
> must enter the conductor. The conditions at the surface of the
> conductor, as we have already seen, give rise to a small resultant
> electric vector and a large resultant magnetic vector. The presence of
> these at the conductor is direct evidence that power is entering the
> conductor. The small electric vector acts on the internal electrons of
> the conductor and impresses a direction force, tending to drive the
> electrons along the skin of the conductor in the direction of the
> electric vector. But from experience we know that /no/ electrons can
> ever be caused to move without gradually establishing their own magnetic
> field, and this usually takes /time/. The motion of electrons (which is
> electric current by definition) never takes place without the magnetic
> field. How, then, is the electric vector from the electromagnetic wave
> going to put these electrons in motion? It can only do so because the
> electromagnetic wave /also supplies a magnetic vector/ as well as an
> electric vector. And the value of this magnetic vector is exactly
> proportioned to supply just the right amount of magnetic field energy
> which the electrons require for immediate motion. Thus the electrons do
> not have to establish their own magnetic field, since this field is
> supplied by the electromagnetic wave. Hence, electromagnetic wave energy
> entering the conductor establishes immediate motion of electrons /along/
> the conductor, the direction of motion at any instant corresponding to
> the direction of the electric vector. If the electric vector changes
> direction, the electrons will follow suit."

Hi Roy -

It's certainly true that a moving charge generates a magnetic field, so perhaps I'm reading it wrong. But it appears to me that Mr. Bailey is arguing here that an electron cannot be compelled to move simply by the application of an electric field. Do you think that is what he is saying? Do you agree?

> Other posters have correctly pointed out that an antenna doesn't and
> can't receive a signal solely due to the E field;

Given the statement below, I would be interested to know how anyone
could have tested the claim. ;-)

> a time-changing E
> field can't exist without an accompanying time-changing H field.

> Roy Lewallen, W7EL

Jim Kelley, AC6XG

> Paul Taylor wrote:
>
>> Hi,
>>
>> I am looking for an explanation of how an antenna receives a signal due
>> to the E-field of an electromagnetic wave.
>> I have looked in some books, and can understand transmission, but the
>> books I have looked in don't explain reception.
>> I have found an explanation of how the H-field induces a signal in a loop
>> antenna: a changing magnetic flux will induce a current.
>> But what about the E-field and a dipole antenna? I guess that the E-field
>> causes electrons to move in the antenna wire, because in a solid
>> conductor, electrons will move until the E-field inside the solid is
>> cancelled out?
>>
>> I have googled but having difficulty finding a good explanation. Any
>> pointers?
>>
>> Thanks & regards,
>>
>> Paul.
>>

3875. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 19:36:28 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5kmmo1tmlbj5s3chhgqi5a0a7tk35ggj4s@4ax.com>
Source record: 67371

On Mon, 28 Nov 2005 17:54:35 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

>that VSWR *cant* be measured. I claim that VSWR *can* be measured and that
>VSWR can be used to identify the impedance terminating the transmission
>line.

Jerry, unless you redefine the term "impedance", you cannot generally
measure impedance with a typical reflectometer style SWR meter.

Impedance is a complex quantity (ie with real and imaginary parts).
There are an infinite number of different impedances (being
combinations of the real and imaginary parts) that could cause a given
SWR on a given line in most cases. (The exception is the case when
VSWR=1, you do know the impedance, it is the nominal Zo for which the
instrument was calibrated.)

Whilst you can work out the SWR that will result from a specific
impedance on a specific Zo line, you cannot do the inverse, you don't
have enough information.

Owen
--

3876. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 19:52:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmfvq4chf1@news.service.uci.edu>
Source record: 67283

Reg Edwards wrote:

> It is impossible for an E-field to exist without an H-field.

Must have been before electrostatics was invented. :-)

ac6xg

3877. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 20:10:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmfo75$pf1$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67372

"Jerry Martes" wrote
> I'm writing this to represent the "other side" of an arguement
that states
> that VSWR *cant* be measured. I claim that VSWR *can* be measured
and that
> VSWR can be used to identify the impedance terminating the
transmission
> line.
==========

The only way to measure SWR on a transmission line is to run a voltmeter along it. At least TWO measurements are needed. Not ONE. And line length is involved.

The voltmeter readings will indeed tell you what the SWR is. But nothing else. It will be possible to calculate from the readings and the distance between max and min what the velocity of propagation is.

But it is essential to add extra critical information before anything else can be deduced. Without this EXTRA information knowledge of the SWR (if it can be obtained) is useless. The so-called SWR meter does not and cannot provide this information.

To calculate the terminating impedances from the SWR it is neccsary also to know the line impedance, its velocity and the exact locations of the max-volts and min-volts relative to the ends. The meter will not tell you.

And the foregoing is on a line which exists only in one's imagination.

I am sorry to repeat, the indications of the SWR meter apply only to the input impedance of the line from the transmitter to the antenna. The meter, in itself, tells you nothing about what is happening to conditions along the line. It certainly tells you nothing about the antenna's input impedance which is of primary interest.

IF, BY SOME MEANS, YOU CAN MEASURE SWR, then there is much more information needed before the performance of the system can be predicted.

The funny thing is - the performance of the system can be deduced from the extra information without reference to the SWR. The whole business is laughable.

Just change the name of the meter and all will become clear.

Reg, G4FGQ.

3878. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 20:15:30 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmg17h$d6j$1@news.service.uci.edu>
Source record: 67286

Roy Lewallen wrote:
> Jim Kelley wrote:
>
>>
>> Hi Roy -
>>
>> It's certainly true that a moving charge generates a magnetic field,
>> so perhaps I'm reading it wrong. But it appears to me that Mr. Bailey
>> is arguing here that an electron cannot be compelled to move simply by
>> the application of an electric field. Do you think that is what he is
>> saying? Do you agree?
>
>
> No, I don't believe he's saying that. He says,
>
> >> The small electric vector acts on the internal electrons of
> >> the conductor and impresses a direction force, tending to drive the
> >> electrons along the skin of the conductor in the direction of the
> >> electric vector. . .

Yes. But then he goes on to say,

> How, then, is the electric vector from the electromagnetic wave going to put these electrons in motion?

That's what I was referring to. Do you understand why he would pose this question if he believed he had already given the answer in the paragraph you quoted? He shoulda quit while he was ahead maybe? ;-)

Thanks,

Jim Kelley, AC6XG

3879. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 20:45:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <R%Jif.34188$6e1.6245@newssvr14.news.prodigy.com>
Source record: 67373

Owen Duffy wrote:

> <j.jmartes@verizon.net> wrote:
>>that VSWR *cant* be measured. I claim that VSWR *can* be measured and that
>>VSWR can be used to identify the impedance terminating the transmission
>>line.
>
> Jerry, unless you redefine the term "impedance", you cannot generally
> measure impedance with a typical reflectometer style SWR meter.

Here's how I do it, Owen. I modified my SWR meter to tell me
if the voltage sample is leading or lagging the current sample
and if the voltage sample is greater or less than the current
sample. Given the SWR is ratioed to 50 ohms, that's all I need.
I adjust the length of my feedline until I find a current maximum
point and the rest is easy.
--
73, Cecil http://www.qsl.net/w5dxp

3880. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 20:49:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <73Kif.34189$6e1.12840@newssvr14.news.prodigy.com>
Source record: 67374

Reg Edwards wrote:
> The only way to measure SWR on a transmission line is to run a
> voltmeter along it.

Reg, what about Rho = SQRT(P-/P+) and SWR=(1+Rho)/(1-Rho)?
--
73, Cecil http://www.qsl.net/w5dxp

3881. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 21:05:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmfrf6$gc7$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67375

"Cecil Moore" wrote
> The tuner SWR meter only indicates the SWR on the 50 ohm coax
> between the transmitter and the tuner. However, I have an SWR
> meter on the antenna side of my tuner and it does indeed indicate
> the SWR on my transmission line.
>
> XMTR--SWR meter#1--tuner--SWR meter#2--50 ohm coax to a G5RV
>
> SWR meter#2 does indeed indicate the SWR on the coax feed to
> my G5RV. It obviously does not indicate the SWR at the antenna.
==========

Cec, you are not telling the whole truth.

The meter tells you nothing about the important main G5RV transmission line. ie., the SWR on the ladder line between the end of the coax and the antenna. Neither can it tell you what the antenna input impedance is.

There are other ways of finding the input impedance of the G5RV antenna and its effect on line SWR if you should ever be sufficiently interested. You could use a computer program. ;o)

Reg.

3882. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 21:07:39 UTC
From: Over The Hill <conrad.h@canada.com>
Message-ID: <wkKif.2339$wf2.255928@news20.bellglobal.com>
Source record: 67278

Roy Lewallen wrote:

<snip>

> How is any creative design accomplished? How did Armstrong come up with
> the idea for FM, Watt for the steam engine? I've spent most of my career
> doing circuit design, and it requires a deep knowledge of theory, but
> also involves a creative synthesis not unlike what an artist has in
> deciding what to paint or an architect in deciding what form a building
> will take.

<snip>

Probably as well put as I've ever seen it and absolutely true.

Look at antennas such as Log Periodic, Slot, Turnstile. The design
Initially required more creative juices than engineering know-how. The
engineering came after they were visually created in the mind. I know
that to be a fact with the slot antenna. Some of the best engineers I
have known, are those who visualize the function and then confirm it
through calculation and measurement. In my opinion, these people are
more like artists than engineers.
For example, many people can put paint to canvas technically however,
only an artist can use the paint to create what appears to be a living
thing. The same holds true for engineers. The capable ones have the
knowledge base. However, the really really good ones have something
extra which is learned from books. Those are the special ones, the
inventors.

--
Over The Hill

The question of whether computers can think is like the question of
whether submarines can swim.

Edsgar Dijkstra

3883. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 21:12:07 UTC
From: Over The Hill <conrad.h@canada.com>
Message-ID: <HoKif.2340$wf2.256437@news20.bellglobal.com>
Source record: 67279

Over The Hill wrote:
> However, the really really good ones have something
> extra which is learned from books. Those are the special ones, the
> inventors.

Sorry, should read:

> However, the really really good ones have something
> extra which is *not* learned from books. Those are the special
ones, the
> inventors.

--
Over The Hill

The question of whether computers can think is like the question of
whether submarines can swim.

Edsgar Dijkstra

3884. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 21:14:32 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <p7smo1dbt3fhe0norf6vcebn767ptub8e9@4ax.com>
Source record: 67276

On Mon, 28 Nov 2005 20:45:37 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>
>> <j.jmartes@verizon.net> wrote:
>>>that VSWR *cant* be measured. I claim that VSWR *can* be measured and that
>>>VSWR can be used to identify the impedance terminating the transmission
>>>line.
>>
>> Jerry, unless you redefine the term "impedance", you cannot generally
>> measure impedance with a typical reflectometer style SWR meter.
>
>Here's how I do it, Owen. I modified my SWR meter to tell me
>if the voltage sample is leading or lagging the current sample
>and if the voltage sample is greater or less than the current
>sample. Given the SWR is ratioed to 50 ohms, that's all I need.
>I adjust the length of my feedline until I find a current maximum
>point and the rest is easy.

Nice try Cecil.

Note Jerry's statement: "VSWR can be used to identify the impedance terminating the transmission line".

Your method, impractical as it is, means you have found a point where the impedance at the instrument terminals is purely resistive, and a minimum, and you are correct that you could calculate the value of that resistance. That measurement does not tell you the "impedance terminating the transmission line" unless the line is of zero length. You could make another measurement with another instrument (line length using a ruler) and using other knowledge, calculate the "impedance terminating the transmission line".

In a practical situation, there is a risk that there is current flowing on the outer of a coaxial line or unbalance current in the case of an open wire line. In that case, changing the feedline length may affect the load impedance at the end of the line, so your proposed method may alter the very thing you are "measuring".

Knowledge of the SWR AND the position of the standing wave pattern wrt the load AND the loss characteristics of the line is enough information to determine the "impedance terminating the transmission line"... but a typical reflectometer SWR meter does not measure all of those things.

Owen
--

3885. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 21:17:38 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <htsmo1hq7jsl9fi6lqj55gofsl801kcff5@4ax.com>
Source record: 67277

On Mon, 28 Nov 2005 21:14:32 GMT, Owen Duffy <owen@no.where> wrote:

>Knowledge of the SWR AND the position of the standing wave pattern wrt
>the load AND the loss characteristics of the line is enough
>information to determine the "impedance terminating the transmission
>line"... but a typical reflectometer SWR meter does not measure all of
>those things.

Sorry, that should read:

Knowledge of the SWR AND the position of the standing wave pattern wrt
the load AND the transmission characteristics of the line is enough
information to determine the "impedance terminating the transmission
line"... but a typical reflectometer SWR meter does not measure all of
those things.

Owen
--

3886. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 21:24:57 UTC
From: Over The Hill <conrad.h@canada.com>
Message-ID: <JAKif.2345$wf2.257439@news20.bellglobal.com>
Source record: 67281

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> The only way to measure SWR on a transmission line is to run a
>> voltmeter along it.
>
>
> Reg, what about Rho = SQRT(P-/P+) and SWR=(1+Rho)/(1-Rho)?

If you know the forward and reflected power, VSWR can be calculated as
follows:

VSWR=(1+sqrt Pr/Pi) / (1-sqrt Pr/Pi)

I believe.

--
Over The Hill

The question of whether computers can think is like the question of
whether submarines can swim.

Edsgar Dijkstra

3887. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 21:29:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmfsrj$kh6$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67280

> Reg, what about Rho = SQRT(P-/P+) and SWR=(1+Rho)/(1-Rho)?
==========
Cec, That's a calculation, merely arithmetic, not a measurement.

It applies only to a long line lossless line which does not exist but
Zo must be 50 ohms. And nobody has the foggiest idea where max-volts
and min-volts are located. And so the calculated information is
useless except for trolling on newsgroups. ;o)

Reg.

3888. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 22:19:39 UTC
From: Over The Hill <conrad.h@canada.com>
Message-ID: <%nLif.2366$wf2.263110@news20.bellglobal.com>
Source record: 67285

Reg Edwards wrote:
>>Reg, what about Rho = SQRT(P-/P+) and SWR=(1+Rho)/(1-Rho)?
>
> ==========
> Cec, That's a calculation, merely arithmetic, not a measurement.
>
> It applies only to a long line lossless line which does not exist but
> Zo must be 50 ohms. And nobody has the foggiest idea where max-volts
> and min-volts are located. And so the calculated information is
> useless except for trolling on newsgroups. ;o)
> ----
> Reg.

Here are several VSWR measurement techniques. They are real they are
valid and I used them for years. VSWR is a *very* important parameter,
especially when dealing with high power systems.

http://people.deas.harvard.edu/~jones/es151/lab_assign/lab_assign_3_98.pdf

--
Over The Hill

The question of whether computers can think is like the question of
whether submarines can swim.

Edsgar Dijkstra

3889. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 22:31:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11on1ad29qr1841@corp.supernews.com>
Source record: 67284

Jim Kelley wrote:
>
> Hi Roy -
>
> It's certainly true that a moving charge generates a magnetic field, so
> perhaps I'm reading it wrong. But it appears to me that Mr. Bailey is
> arguing here that an electron cannot be compelled to move simply by the
> application of an electric field. Do you think that is what he is
> saying? Do you agree?

No, I don't believe he's saying that. He says,

>> The small electric vector acts on the internal electrons of
>> the conductor and impresses a direction force, tending to drive the
>> electrons along the skin of the conductor in the direction of the
>> electric vector. . .

Roy Lewallen, W7EL

3890. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 23:04:55 UTC
From: jgboyles@aol.com
Message-ID: <1133219095.939791.234890@z14g2000cwz.googlegroups.com>
Source record: 67287

Reg Edwards wrote:
> > Reg, what about Rho = SQRT(P-/P+) and SWR=(1+Rho)/(1-Rho)?
> ==========
> Cec, That's a calculation, merely arithmetic, not a measurement.
>
> It applies only to a long line lossless line which does not exist but
> Zo must be 50 ohms. And nobody has the foggiest idea where max-volts
> and min-volts are located. And so the calculated information is
> useless except for trolling on newsgroups. ;o)
> ----
> Reg.
Hi Reg, Do you advocate changing the measurement and calaculation that all our handy little Antenna Analyzers report as SWR to TLI? That would cost a lot to re-tool. My MFJ-259, and I think you have stated that you have one also, reports lots of useful info, and uses a bridge, a PIC, and a neat display. SWR as well as many other parameters are measured indirectly, and calculated with the Micro. You could make the agrument that all the other stuff the Analyzer reports needs to be more descriptive, but it would cost too much to change. If you read the manual, and know what the displays on any meter really means, then why change anything?
Gary N4AST

3891. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 23:52:40 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cLMif.27743$tV6.23349@newssvr27.news.prodigy.net>
Source record: 67288

Owen Duffy wrote:
> Your method, impractical as it is, ...

"My method" was in widespread use before I was born. I learned
it from my Elmer in the early 50's. He was always looking for
that "magic" current maximum point to feed from his link
coupled tank circuit.

> ... means you have found a point where
> the impedance at the instrument terminals is purely resistive, and a
> minimum, and you are correct that you could calculate the value of
> that resistance. That measurement does not tell you the "impedance
> terminating the transmission line" unless the line is of zero length.

A transmission line transforms the impedance in a predictable
manner given the transmission line specifications. One can
backtrack the SWR spiral on a Smith Chart to get a reasonable
estimate for the antenna impedance. The impedances for my dipole
calculated in such a manner are pretty close to the ones predicted
by EZNEC.

> In that case, changing the feedline length
> may affect the load impedance at the end of the line, ...

The load impedance is what it is, virtually unaffected by
feedline length.

> ... so your proposed
> method may alter the very thing you are "measuring".

Virtually every time one makes a measurement, one alters the
very thing that one is measuring. That's just a fact of life
and not a valid reason to give up trying to make measurements.
--
73, Cecil http://www.qsl.net/w5dxp

3892. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-28 23:54:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vb5no1tifrf716dvufb315nvvvhvv6ocni@4ax.com>
Source record: 67289

On Mon, 28 Nov 2005 12:15:30 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>> How, then, is the electric vector from the electromagnetic wave going to put these
electrons in motion?
>
>That's what I was referring to. Do you understand why he would pose
>this question

As already stated:
>>But from experience we know that /no/ electrons can
>>ever be caused to move without gradually establishing their own magnetic
>>field, and this usually takes /time/.
The need for time (impedance) is accommodated by the wave:
>> It can only do so because the electromagnetic wave
>>/also supplies a magnetic vector/ as well as an electric vector.

The phase of the re-radiated signal is a function of the path length.
If the path signal required the electric potential to sustain movement
(no other motive force available), that would add an additional phase
retardation that is not observed.

Observation of what does occur is other wise described by Bailey as
>>from experience we know....

Roy's quote comes from a nascent discussion of the topic of Reception
that has a complete, later chapter devoted to it.

73's
Richard Clark, KB7QHC

3893. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 00:18:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <97Nif.27749$tV6.26014@newssvr27.news.prodigy.net>
Source record: 67290

Reg Edwards wrote:

>>Reg, what about Rho = SQRT(P-/P+) and SWR=(1+Rho)/(1-Rho)?
>
> It applies only to a long line lossless line which does not exist but
> Zo must be 50 ohms.

Let's say we have the following system configuration with
a 1:1 choke at '+':

100W XMTR---50 ohm coax---+---300 ohm twinlead---...
Pfor1=100w--> Pfor2-->
<--Pref1=0w <--Pref2

What's the forward power on the 300 ohm twinlead?
What's the reflected power on the 300 ohm twinlead?
What's the SWR on the 300 ohm twinlead?
--
73, Cecil http://www.qsl.net/w5dxp

3894. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 01:28:24 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Y8Oif.2924$HC2.352@trnddc06>
Source record: 67291

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dmfo75$pf1$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Jerry Martes" wrote
>> I'm writing this to represent the "other side" of an arguement
> that states
>> that VSWR *cant* be measured. I claim that VSWR *can* be measured
> and that
>> VSWR can be used to identify the impedance terminating the
> transmission
>> line.
> ==
>
> The only way to measure SWR on a transmission line is to run a
> voltmeter along it. At least TWO measurements are needed. Not ONE.
> And line length is involved.
>
> The voltmeter readings will indeed tell you what the SWR is. But
> nothing else. It will be possible to calculate from the readings and
> the distance between max and min what the velocity of propagation is.
>
> But it is essential to add extra critical information before anything
> else can be deduced. Without this EXTRA information knowledge of the
> SWR (if it can be obtained) is useless. The so-called SWR meter does
> not and cannot provide this information.
>
> To calculate the terminating impedances from the SWR it is neccsary
> also to know the line impedance, its velocity and the exact locations
> of the max-volts and min-volts relative to the ends. The meter will
> not tell you.
>
> And the foregoing is on a line which exists only in one's imagination.
>
> I am sorry to repeat, the indications of the SWR meter apply only to
> the input impedance of the line from the transmitter to the antenna.
> The meter, in itself, tells you nothing about what is happening to
> conditions along the line. It certainly tells you nothing about the
> antenna's input impedance which is of primary interest.
>
> IF, BY SOME MEANS, YOU CAN MEASURE SWR, then there is much more
> information needed before the performance of the system can be
> predicted.
>
> The funny thing is - the performance of the system can be deduced

> from the extra information without reference to the SWR. The whole
> business is laughable.
>
> Just change the name of the meter and all will become clear.
> ----
> Reg, G4FGQ.

Hi Reg

I have no understanding of why you find it important to state things that are not true about VSWR. VSWR *can* be measured. It is clear to me that you know that the Complex Impedance terminating a transmission line can determined by measuring the VSWR. Sure, it requires the position of the voltage mins (or maxs) be identified, with the load and then with a short ckt., and a Smith chart to be used for quick/easy identification of the load impedance. But, is that so much calculation that you find it necessary to state " IF, BY SOME MEANS, YOU CAN MEASURE SWR, then there is much more
> information needed before the performance of the system can be
> predicted".

The load impedance isnt "predicted". It is actually *determined* with an accuracy associated with the precision of the test equipment.

I consider measuring VSWR on a transmission line to be an excellent method of determining load impedance.

Jerry

Jerry

3895. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 01:56:35 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <krcno1lerq8n8hadhtob7gg67o5oanvqsa@4ax.com>
Source record: 67292

On Mon, 28 Nov 2005 23:52:40 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:

>> that resistance. That measurement does not tell you the "impedance
>> terminating the transmission line" unless the line is of zero length.
>
>A transmission line transforms the impedance in a predictable
>manner given the transmission line specifications. One can
>backtrack the SWR spiral on a Smith Chart to get a reasonable
>estimate for the antenna impedance. The impedances for my dipole

To do that, you need to determine the position of the standing wave pattern with respect to the load, and a typical reflectometer style SWR meter does not do that. You could put a ruler to the line, but you are using another instrument to make a another measurement that the reflectometer could not make.

It is misleading to suggest that a reflectometer style SWR meter alone is useful for determining the impede dance of a load connected to the meter by a length of transmission line, save possibly the case when VSWR=1 and the line is low loss and Zo is the same as the calibration Z of the SWR meter.

Owen
--

3896. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 02:47:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <rjPif.34255$6e1.26957@newssvr14.news.prodigy.com>
Source record: 67293

Owen Duffy wrote:
> To do that, you need to determine the position of the standing wave
> pattern with respect to the load, and a typical reflectometer style
> SWR meter does not do that.

Yes it does, if one has the ability to vary the length of the feedline
until a current maximum point (minimum SWR) is known to be located at
the balun/choke. I do it everytime I get on the air. That's how I tune
my antenna system and I don't use any conventional tuner at all.

> It is misleading to suggest that a reflectometer style SWR meter alone
> is useful for determining the impedance of a load connected to the
> meter by a length of transmission line, save possibly the case when
> VSWR=1 and the line is low loss and Zo is the same as the calibration
> Z of the SWR meter.

Not misleading at all. I do it all the time. I know the exact length,
velocity factor, and Z0 of my feedline. I know an SWR current maximum
point is located at my choke. I know if it is greater than, less than,
or equal to 50 ohms. It is a rather simple-minded process to accurately
estimate the antenna feedpoint impedance given everything I know. You
should try it sometime. Even if I didn't know if the current maximum
impedance was lower than or higher than 50 ohms, there would only be
two possible antenna impedances. EZNEC has a perfect track record in
predicting which of those two antenna impedances actually exists.
--
73, Cecil http://www.qsl.net/w5dxp

3897. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 02:58:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ctgno1p8magui960tqcjp1iq7sbcb0727s@4ax.com>
Source record: 67294

Have it your way Cecil...

Owen
--

3898. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 03:38:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmgifv$ql3$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67295

Cecil, there's no need to rack your brains for hours trying to deduce
the antenna input impedance from the input impedance of the
transmission line. There's a computer program which will tell you the
exact answer in milliseconds. Download program ZL_Zin from website
below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

3899. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 04:09:43 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <bwQif.34268$6e1.14518@newssvr14.news.prodigy.com>
Source record: 67296

Jim Kelley wrote:
> Reg Edwards wrote:
>
>> It is impossible for an E-field to exist without an H-field.
>
>
> Must have been before electrostatics was invented. :-)
>
> ac6xg
>
>

How do you make an electrostatic radio wave?
73,
Tom Donaly, KA6RUH

3900. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 04:28:22 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <GNQif.2331$Hk1.2249@newsread1.news.pas.earthlink.net>
Source record: 67297

Richard Harrison wrote:

> Wayne Watson wrote:
> "What about the underlying methodology behind this?"
>
> Please refer to the 3rd. edition of "Antennas for All Applications", by
> John D. Kraus with a host of other professors, for answers to nearly all
> your questions. Kraus organizes antennas by types.
>
> The dipole is the simplest complete antenna. But, the first practical
> antenna was patented by Marconi. He was interested in communications
> over the ocean, so only 1/2 of a dipole is needed. The return circuit is
> provided by the ocean. Sea water is nearly lossless.
>
> Marconi imagined the antenna as a capacitor plate.. Then he discovered
> the antenna worked about as well with just the connectng wires inplace,
> without the plate. As the 19th century turned into the 20th century,
> Marconi spanned the Atlantic with signals from his antennas.
>
> Best regards, Richard Harrison, KB5WZI
>

A book by that title was not found on Amazon. You're not thinking of the
latest edition of his "Antennas" are you?

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3901. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 04:29:22 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <COQif.2332$Hk1.1106@newsread1.news.pas.earthlink.net>
Source record: 67298

Caveat Lector wrote:

> I think many antenna designs arose as a matter of "necessity is the mother
> of invention"
>
> For example here is a Yagi antenna quote from URL:
>
> http://ieee.cincinnati.fuse.net/newsletters/200405.pdf
>
> At Tohoku, Yagi initiated a research program in radio-electronics drawing on
> what he had learned from Barkhausen, Fleming, and Pierce. Other members of
> the faculty and advanced students, including Okabe and Shintaro Uda, became
> participants in a collective research effort. A perceived need for better
> communication between islands and with ships led them to focus on short wave
> communication with directive antennas. The Yagi group received financial
> support for the research from a private foundation in Sendai. In February
> 1926, Yagi and Uda published their first report on the wave projector
> antenna in a Japanese publication.
>
> For the Cubical Quad see URL:
>
> http://www.antennex.com/preview/Jan501/quad1.htm
>
> Clarence Moore, the station engineer at HCJB in Quito, and some colleagues
> took along with them a stack of antenna and engineering texts and a Bible on
> a Sabbatical in 1942. Their urgent goal was to come up with an antenna that
> wouldn't consume itself by corona discharge when fed with high power, as was
> happening to their Yagi, at the high Andean altitude of their station. A
> full wave loop solved the problem.
>
> Some remarkable antenna designs today because of the need to fit an antenna
> on a cell phone.
>
> For direction finding, loops, interferometers, etc were needed
>
> ETC
Yes, those are interesting insights. Kraus in "Antennas" offers several.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.

-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3902. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 04:38:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmgm00$jg4$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67299

Cec,

The meter indicates SWR on the 50-ohm coax between meter and transmitter. It HAS to be 50-ohm coax. Any other impedance and you get the wrong answer. Without measurement of Zo = 50 ohms it can only be assumed.

You then include in the calculation the measurement or assumption of the Zo of the 50-ohm coax, and the measurement or assumption of Zo of the twin-line, and the forward and reverse powers, and the SWR on the twin line can be deduced or assumed.

But if you think you are measuring SWR on anything you are cheating and fooling yourself.

In your particular case an assumptiom of Zo = 450 ohms for the twinline would be very much in error because both you and I know you have measured Zo to be 380 ohms. I can tell you what the SWR is on YOUR feedline without getting out of this armchair. I don't need to know your meter readings. ;o)

Reg.

3903. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 05:50:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <luqno11ouf8tlt86l7f6gn4simu6ot943j@4ax.com>
Source record: 67300

On Tue, 29 Nov 2005 04:28:22 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

>A book by that title was not found on Amazon. You're not thinking of the
>latest edition of his "Antennas" are you?

Hi OM,

Amazon is a poor start. Try a real book vendor:
http://www.alibris.com/search/search.cfm?qwork=349517&wtit=%22Antennas%20for%20All%20Applications&ptit=Antennas%20for%20All%20Applications&pauth=Kraus%2C%20John%20Daniel%2C%20and%20Leet%2C%20Kenneth%20J&pisbn=&pqty=3&pqtynew=3&pbest=84%2E18&pbestnew=84%2E18&matches=3&qsort=r&cm_re=works*listing*title
where there are three available. You may not like the price, however.

73's
Richard Clark, KB7QHC

3904. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 07:01:24 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438be391@fidonet.org>
Source record: 67301

"Jim Kelley" bravely wrote to "All" (28 Nov 05 11:52:53)
--- on the heady topic of "Re: Antenna reception theory"

JK> From: Jim Kelley <jwkelley@nospam.edu>
JK> Xref: core-easynews rec.radio.amateur.antenna:220506

JK> Reg Edwards wrote:

> It is impossible for an E-field to exist without an H-field.

JK> Must have been before electrostatics was invented. :-)

Yes, but you are changing the topic into static fields. We were
discussing changing electric fields, not statics but dynamics!

A*s*i*m*o*v

... "Hey, I'm just this guy, see?" --Zaphod Beeblebrox

3905. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 07:19:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmgvej$104$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67302

"Jerry Martes" wrote
> I have no understanding of why you find it important to state things
that
> are not true about VSWR.

==========
Jerry,

It is important because the SWR meter is EDUCATIONAL. It is more than a pair of red and green LED's on our automatic tuners.

All along I have stated that the name of the so-called SWR meter should be changed. Other more technical statements have been made to convince they whose state of mind prevents agreement.

Remarkably few people disagree with my technical statements but offer no reasons for disagreement or prove me to be incorrect.

SWR meters are by far the most prevelent topic on amateur radio newsgroups. It appears time and time again in contexts which demonstrate it to be a source of misunderstandings, arguments and general confusion.

I maintain that the instrument's name is the root cause of the problems. It does not do what its name says it does. This inevitably leads people, not just novices and CB-ers, into incorrect channels of thought which become deeply ingrained. It unnecessarily introduces SWR into discussions which actually have nothing to do with SWR. And worst of all, when operating equipment, it causes people to have problems which either don't exist or are different to what people imagine they are. Mis-education is the keyword.

Re-naming should begin in amateur radio handbooks and similar publications. Editors should be the first to be educated.

SWR meters are seldom mentioned as such in professional text books. They are given other more correct names. Terman manages very well wthout them. But there's nothing wrong with his bibles. (Yes, I know they probably hadn't been invented in his day.)

Perhaps when our Chinese friends enter the amateur radio market, manufacturers' wisdom will allow the light of reason to shine through. But they will have to get a move on. I can foresee the time when automatic tuners are universal and the only meter on black boxes will be the S-meter.

I don't doubt that you thoroughly understand how the so-called SWR meter works. But even the present discussion is enough to demonstrate that a simple change is needed. In the end it all reduces to economics and survival of the fittest argument.

Reg, G4FGQ

3906. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 07:31:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmh049$2gd$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67303

Gerry,

The load is the antenna - about which the SWR meter knows absolutely nothing. All the the meter has to work with is the input impedance of the tuner or the transmission line.

Line input Z = R+jX and to aggravate matters the meter discards all information about X.

Reg.

3907. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 07:46:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmh11e$d49$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67304

Cecil, I note you have changed the name from "SWR Meter" to "Forward &
Reverse Power Meter", a procedure I have been recommending for years.
Congratulations!

Although I am not altogether happy with your choice of new name.

Reg.

3908. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 08:43:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11oo55f1oquge13@corp.supernews.com>
Source record: 67305

Jim Kelley wrote:
>
> Roy Lewallen wrote:
>
>> Jim Kelley wrote:
>>
>>>
>>> Hi Roy -
>>>
>>> It's certainly true that a moving charge generates a magnetic field,
>>> so perhaps I'm reading it wrong. But it appears to me that Mr.
>>> Bailey is arguing here that an electron cannot be compelled to move
>>> simply by the application of an electric field. Do you think that is
>>> what he is saying? Do you agree?
>>
>>
>>
>> No, I don't believe he's saying that. He says,
>>
>> >> The small electric vector acts on the internal electrons of
>> >> the conductor and impresses a direction force, tending to drive the
>> >> electrons along the skin of the conductor in the direction of the
>> >> electric vector. . .
>
>
> Yes. But then he goes on to say,
>
>> How, then, is the electric vector from the electromagnetic wave going
>> to put these electrons in motion?
>
>
> That's what I was referring to. Do you understand why he would pose
> this question if he believed he had already given the answer in the
> paragraph you quoted? He shoulda quit while he was ahead maybe? ;-)

Well, it's obvious that an electric field can move an electron. The Lorentz force law tells us how much force results from a given E field, and we can get the resulting acceleration from Newtonian physics. An everyday example is an oscilloscope deflection system which uses an electric field to deflect electrons. (Actually, modern digital scopes typically use raster displays with magnetic deflection -- but many of still have older analog types with electric field deflection.)

But if the antenna conductor were perfect, no E field at all could exist at the wire surface regardless of the amplitude of the E field of the

oncoming wave. The wave's E field therefore couldn't directly influence the electrons in the (perfect) conductor. Only the H field of the wave, then, can induce a current in the perfect conductor. The direct influence of the E field on an imperfect conductor would be highly dependent on the conductivity of the wire, and I'd guess it would be very small compared to the influence of the H field from a typical oncoming wave on an electron in a good conductor. Maybe that's what he was saying.

Roy Lewallen, W7EL

3909. C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 11:36:09 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <J2Xif.3283$A23.819@newsread2.news.pas.earthlink.net>
Source record: 67306

I bought this antenna on a 30 day trial, and just got it about 12 hours ago. So far I'm not at all impressed. I live about 150 miles from an AM station, at 810, in the SF/SJ Bay Area, which has a marginal signal, but usually listenable. Putting a new PSU in a PC about a month ago increased the noise in AM radios 70-100' from the PC to an almost unacceptable level. I had hoped the antenna would boost the signal enough to knock down the noise. There are times when I can get a good signal from the station, but certainly less frequently than before.

The antenna consists of three parts: a 600-1800 KHz control dial, a ferrite antenna and something called the antenna element. The latter is about 8" long by 3" by 1.5" (high). The idea is that one puts the ferrite antenna very near the radio and the antenna element in some other spot, then adjusts the control dial to the max strength. I detect zero change in any AM signal from the (C. Crane) radio anywhere on the dial. The antenna element can be grounded. I modestly did this by hooking a wire (alligator clips) from the element to the ground socket of an AC outlet (nail in the socket). No change. BTW, when I was doing the experiment last evening, the signal was pretty decent during that period. In fact, quite listenable. All this without the device though.

I'll continue to experiment, but so far not so good. Comments?
--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3910. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 11:53:07 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1133265187.699270.146870@o13g2000cwo.googlegroups.com>
Source record: 67307

...if already going into it, a little bit of history.
when the cows had bigger heads and the air was greener, there was no such thing as coax. what we used was the ubiquitous ladder wire, with an unknown impedance and with a frequency response depending on what the Gods ate at lunch! the VSWR story was not invented yet.
What we did was one of two things: either tune the system for maximum current in the line or else used a light bulb in conjunction with a small light bulb and tuned for maximum brilliance. in neither case was SWR involved in the mess.
the whole SWR uproar began after WW2 with the advent of coax and the new fangled theories. that was also the time when all kind of directional couplers came up.in due time a few wise guys developed all kinds of theories on the subject, and manged to convey the impression that SWR is king! nothing further from truth. what's really true is that reflections can cause the apparent impedance at the network's input to differ from Zo. SO WHAT? if you can adjust your matching network between the transmitter and the line for a match what do you care?
actually the hitch is that, with a high SWR on the line, the losses go up. if the cable can take it, without melting no harm's done: whatever remains will get radiated. this was the good pint of open feeders: the losses were very low. an SWR fo 10 and more was insignificant from the losses' point ov view.
Guys, leave it alone! Just make sure that the SWR is a reasonable value, something that the transmitter can handle and leave it at that.
Saandy 4Z5KS

Reg Edwards wrote:
> "Saandy wrote
>
> > you can't measure SWR.
> ==
>
> I am pleased you agree with me.
>
> ==
> > You can CALCULATE the SWR using the formula.
> ==
>
> But of what use is the SWR it after you have calculated it?
>
> To what transmission line does it apply? Where is it? What are the
> locations of max-volts and min-volts? It does NOT apply to the line
> between transmitter and antenna. I suggest it exists only in your

> imagination. ;o)
>
> It is the name of "SWR Meter" which leads to confusion,
> misunderstandings and arguments. The name says the instrument does
> something which it does not do. With the help of old-wives, novices
> are led astray and are stuck with incorrect ideas about standing-waves
> for the rest of the lives.
>
> Just change the name to TLI (Transmitter Loading Indicator) which is
> what it is and does very well. The true meaning and associations of
> SWR will then emerge and all will be flooded with the light of reason.
> ----
> Reg, G4FGQ.

3911. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 11:53:13 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1133265193.300163.189900@g44g2000cwa.googlegroups.com>
Source record: 67308

...if already going into it, a little bit of history.
when the cows had bigger heads and the air was greener, there was no such thing as coax. what we used was the ubiquitous ladder wire, with an unknown impedance and with a frequency response depending on what the Gods ate at lunch! the VSWR story was not invented yet.
What we did was one of two things: either tune the system for maximum current in the line or else used a light bulb in conjunction with a small light bulb and tuned for maximum brilliance. in neither case was SWR involved in the mess.
the whole SWR uproar began after WW2 with the advent of coax and the new fangled theories. that was also the time when all kind of directional couplers came up.in due time a few wise guys developed all kinds of theories on the subject, and manged to convey the impression that SWR is king! nothing further from truth. what's really true is that reflections can cause the apparent impedance at the network's input to differ from Zo. SO WHAT? if you can adjust your matching network between the transmitter and the line for a match what do you care?
actually the hitch is that, with a high SWR on the line, the losses go up. if the cable can take it, without melting no harm's done: whatever remains will get radiated. this was the good pint of open feeders: the losses were very low. an SWR fo 10 and more was insignificant from the losses' point ov view.
Guys, leave it alone! Just make sure that the SWR is a reasonable value, something that the transmitter can handle and leave it at that.
Saandy 4Z5KS

Reg Edwards wrote:
> "Saandy wrote
>
> > you can't measure SWR.
> ==
>
> I am pleased you agree with me.
>
> ==
> > You can CALCULATE the SWR using the formula.
> ==
>
> But of what use is the SWR it after you have calculated it?
>
> To what transmission line does it apply? Where is it? What are the
> locations of max-volts and min-volts? It does NOT apply to the line
> between transmitter and antenna. I suggest it exists only in your

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> It is the name of "SWR Meter" which leads to confusion,
> misunderstandings and arguments. The name says the instrument does
> something which it does not do. With the help of old-wives, novices
> are led astray and are stuck with incorrect ideas about standing-waves
> for the rest of the lives.
>
> Just change the name to TLI (Transmitter Loading Indicator) which is
> what it is and does very well. The true meaning and associations of
> SWR will then emerge and all will be flooded with the light of reason.
> ----
> Reg, G4FGQ.

3912. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 14:07:16 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <51ooo1d1k89d5tif3s29h1uqe41e2uranc@4ax.com>
Source record: 67309

On Tue, 29 Nov 2005 11:36:09 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

> excerpted...
>
>I'll continue to experiment, but so far not so good. Comments?

You've already got an 8" ferrite bar antenna in the C.Crane radio;
perhaps the twin-doozie deal just doesn't add that much.

bob
k5qwg

3913. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 14:14:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <XmZif.26387$Zv5.20043@newssvr25.news.prodigy.net>
Source record: 67310

Owen Duffy wrote:
> Have it your way Cecil...

I hope you now see the advantage of being able to vary the
length of the ladder-line until a current maximum point is
located at the choke-balun. Knowing the impedance is purely
resistive and relatively low allows me to read it with my
MFJ-259B. That resistive point is on the ladder-line SWR circle
on the Smith Chart. An arc of the SWR circle is the known length
of the feedline which gives me the feedpoint impedance of the
antenna (and can be adjusted for losses).
--
73, Cecil http://www.qsl.net/w5dxp

3914. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 14:28:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <VzZif.26389$Zv5.9524@newssvr25.news.prodigy.net>
Source record: 67311

Richard Clark wrote:

> <wolf_tracks@invalid.com> wrote:
>>A book by that title was not found on Amazon. You're not thinking of the
>>latest edition of his "Antennas" are you?

"for all applications" is part of a subtitle.

> Amazon is a poor start. Try a real book vendor:
> http://www.alibris.com/search/search.cfm?qwork=349517&wtit=%22Antennas%20for%20All%20Applications&ptit=Antennas%20for%20All%20Applications&pauth=Kraus%2C%20John%20Daniel%2C%20and%20Leet%2C%20Kenneth%20J&pisbn=&pqty=3&pqtynew=3&pbest=84%2E18&pbestnew=84%2E18&matches=3&qsort=r&cm_re=works*listing*title
> where there are three available. You may not like the price, however.

Prices ($31) are good here:
http://dogbert.abebooks.com/servlet/SearchResults?y=11&isbn=0072321032&x=44
--
73, Cecil http://www.qsl.net/w5dxp

3915. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 15:02:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <X3_if.19420$BZ5.18814@newssvr13.news.prodigy.com>
Source record: 67312

Reg Edwards wrote:
> You then include in the calculation the measurement or assumption of
> the Zo of the 50-ohm coax, and the measurement or assumption of Zo of
> the twin-line, and the forward and reverse powers, and the SWR on the
> twin line can be deduced or assumed.

Actually, nowadays I use my MFJ-259B to read the resistance at
the choke-balun where I have adjusted the ladder-line length to
guarantee the existence of a current maximum point. It's actually
easier to do than to write about it. An assumption that Z0=50 ohms
is not necessary.

> But if you think you are measuring SWR on anything you are cheating
> and fooling yourself.

I actually have an SWR meter calibrated for balanced 380 ohms but it's
in a box somewhere in my garage. I found my indirect measurements to
be entirely accurate enough. In general, if one can isolate the problem
to 10% of the Smith Chart, one can solve any problem by tweaking.

Speaking of indirect measurements - let's say the feedline Z0 is 380
ohms with a VF of 0.9 and a length of 90 ft. The measured resistance
at the current maximum point is 30 ohms on 7.15 MHz. The SWR on the
ladder-line is 380/30 = 12.7:1. The feedline is 0.727 wavelengths
long. Plot the point 30/380 = 0.079 + j0 on a Smith Chart. Draw an
SWR circle through that point. Backtrack from that point around the
circle for 0.727 wavelengths and there's your antenna feedpoint
impedance (neglecting losses). Losses can be taken into account by
using SWR spirals instead of SWR circles. And of course, all of this
is done by a computer program after just a few seconds of data entry.
--
73, Cecil http://www.qsl.net/w5dxp

3916. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 15:03:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <k5_if.19422$BZ5.15226@newssvr13.news.prodigy.com>
Source record: 67313

Asimov wrote:
> Yes, but you are changing the topic into static fields. We were
> discussing changing electric fields, not statics but dynamics!

When is someone going to come up with a context-free language?
--
73, Cecil http://www.qsl.net/w5dxp

3917. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 15:06:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <78_if.19423$BZ5.11218@newssvr13.news.prodigy.com>
Source record: 67314

Reg Edwards wrote:
> Line input Z = R+jX and to aggravate matters the meter discards all
> information about X.

All the more reason to feed the line at a current maximum point
where X is known to be zero.
--
73, Cecil http://www.qsl.net/w5dxp

3918. Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 15:15:37 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <11oos4qo1fo1dd2@corp.supernews.com>
Source record: 67315

I'm inside an office inside an old brick and steel factory and can get very little AM reception, only a few of the stations located in the same city. I ran RG6-U coax to the roof of the factory (appx.100ft) and considered buying a loop antenna but at this groups suggestion connected the coax to a long wire. The stations I'm interested in are Indianapolis 1070kc and Chicago 670kc & 1000kc. I installed 200ft of #12ga insulated wire that is orientated in line with these 2 cities and 6' above the roof at the terminations and 3-4' in the center. I grounded the coax shield at the roof and in my office and I'm using a GE Superadio III on batteries. I can get these stations fine in the daytime with a reasonable amount of static but at night the static increases severely. Is there anything else I can do to make this a better antenna.

Thanks in Advance
Jeff

3919. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 15:16:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <kh_if.19424$BZ5.9885@newssvr13.news.prodigy.com>
Source record: 67316

Reg Edwards wrote:

> Cecil, I note you have changed the name from "SWR Meter" to "Forward &
> Reverse Power Meter", a procedure I have been recommending for years.
> Congratulations!

I think that was probably used to describe the Bird which,
to the best of my knowledge, has no SWR scale on the meter
face.

Now my Autek WM-1 actually has an "SWR meter" on the front
panel in addition to the "watt meter". I don't use a tuner
and it computes the actual SWR on the RG-213 going to my G5RV.
I achieve an SWR very close to 1:1 on the RG-213 on all HF bands
by varying the length of the balanced series section. 36 feet
of ladder-line works for 40m and 17m, my two favorite bands.
--
73, Cecil http://www.qsl.net/w5dxp

3920. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 15:20:29 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1l_if.19425$BZ5.1171@newssvr13.news.prodigy.com>
Source record: 67317

W. Watson wrote:
> Putting a new PSU in a PC about a month ago
> increased the noise in AM radios 70-100' from the PC to an almost
> unacceptable level.

Why do you think that's a radio problem? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3921. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 15:48:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <hL_if.19430$BZ5.629@newssvr13.news.prodigy.com>
Source record: 67318

Saandy , 4Z5KS wrote:
> What we did was one of two things: either tune the system for maximum
> current in the line or else used a light bulb in conjunction with a
> small light bulb and tuned for maximum brilliance. in neither case was
> SWR involved in the mess.

It was around 1949 when I started hanging out at W5OLV's
shack. He had a homebrew 1625 transmitter with a parallel
tank circuit. The plug-in tank coil had a few turns of wire
wrapped around the bottom and that was the transmitter output.
He didn't use a tuner. He had a pickup loop that he slid up
and down the line until he located a current maximum point.
He cut the line at that point and fed it directly from the
transmitter. He added or subtracted turns on the plug-in coil
until he was satisfied. I didn't really understand what he was
doing until I studied the Smith Chart in college almost ten years
later. I now use that same basic technique with my 50 ohm
SGC-500 amplifier.
--
73, Cecil http://www.qsl.net/w5dxp

3922. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 16:31:40 UTC
From: richardharrison@webtv.net
Message-ID: <28496-438C826C-805@storefull-3257.bay.webtv.net>
Source record: 67319

Roy, W7EL wrote:
"But, if the antenna conductor were perfect, no E field at all could exist at the wire surface regardless of the magnitude of the E field of the oncoming wave."

If we have a non-varying E field, a perfect conductor in the field would have the same voltage everywhere due to the short-circuit connecting all points.

But, an electromagnetic wave sweeping the wire has an alternating electric field. Its phase is uniform (the same) across the wavefront because all points are equidistant from the source. A wire parallel to the E vector would simultaneously experience the same E field force throughout its length. "No E field at all could exist at the wire surface regardless of the magnitude of the E field of the oncoming wave,"

Why must the wire be perfect?

Best regards, Richard Harrison, KB5WZI

3923. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 17:16:58 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <ZcKdneDicvRpERHenZ2dnUVZ_sednZ2d@web-ster.com>
Source record: 67320

W. Watson wrote:
> I bought this antenna on a 30 day trial, and just got it about 12 hours
> ago. So far I'm not at all impressed. I live about 150 miles from an AM
> station, at 810, in the SF/SJ Bay Area, which has a marginal signal, but
> usually listenable. Putting a new PSU in a PC about a month ago
> increased the noise in AM radios 70-100' from the PC to an almost
> unacceptable level. I had hoped the antenna would boost the signal
> enough to knock down the noise. There are times when I can get a good
> signal from the station, but certainly less frequently than before.
>
> The antenna consists of three parts: a 600-1800 KHz control dial, a
> ferrite antenna and something called the antenna element. The latter is
> about 8" long by 3" by 1.5" (high). The idea is that one puts the
> ferrite antenna very near the radio and the antenna element in some
> other spot, then adjusts the control dial to the max strength. I detect
> zero change in any AM signal from the (C. Crane) radio anywhere on the
> dial. The antenna element can be grounded. I modestly did this by
> hooking a wire (alligator clips) from the element to the ground socket
> of an AC outlet (nail in the socket). No change. BTW, when I was doing
> the experiment last evening, the signal was pretty decent during that
> period. In fact, quite listenable. All this without the device though.
>
> I'll continue to experiment, but so far not so good. Comments?

I'd change the power supply to a better brand.

Generally if you have atmospheric or man-made noise increasing the antenna efficiency is just going to increase the noise along with the signal.

You could try to make a directional antenna; this would increase your desired signal more than your noise.

The antenna would have to be big, however. The wavelength at 800kHz is somewhere around 370 meters and you'd need to use around 1/4 of this.

You could try to feed power supply noise to the radio antenna at just the right amplitude and phase to null it out. This would be a good subject for an undergraduate or even a Master's thesis in EE but probably not a good thing to do in practice.

You could attempt to shield it. Rat Shack has some clamp-on ferrites, you could put one of these on your power cord close to the end that plugs into the power supply. You could also make sure that the PC case is well shielded.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3924. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 17:54:45 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <FB0jf.7008$6e5.33@trnddc09>
Source record: 67321

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dmgvej$104$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
>
> "Jerry Martes" wrote
>> I have no understanding of why you find it important to state things
> that
>> are not true about VSWR.
>
> ==========
> Jerry,
>
> It is important because the SWR meter is EDUCATIONAL. It is more than
> a pair of red and green LED's on our automatic tuners.
>
> All along I have stated that the name of the so-called SWR meter
> should be changed. Other more technical statements have been made to
> convince they whose state of mind prevents agreement.
>
> Remarkably few people disagree with my technical statements but offer
> no reasons for disagreement or prove me to be incorrect.
>
> SWR meters are by far the most prevelent topic on amateur radio
> newsgroups. It appears time and time again in contexts which
> demonstrate it to be a source of misunderstandings, arguments and
> general confusion.
>
> I maintain that the instrument's name is the root cause of the
> problems. It does not do what its name says it does. This inevitably
> leads people, not just novices and CB-ers, into incorrect channels of
> thought which become deeply ingrained. It unnecessarily introduces
> SWR into discussions which actually have nothing to do with SWR. And
> worst of all, when operating equipment, it causes people to have
> problems which either don't exist or are different to what people
> imagine they are. Mis-education is the keyword.
>
> Re-naming should begin in amateur radio handbooks and similar
> publications. Editors should be the first to be educated.
>
> SWR meters are seldom mentioned as such in professional text books.
> They are given other more correct names. Terman manages very well
> wthout them. But there's nothing wrong with his bibles. (Yes, I know
> they probably hadn't been invented in his day.)
>
> Perhaps when our Chinese friends enter the amateur radio market,

> manufacturers' wisdom will allow the light of reason to shine through.
> But they will have to get a move on. I can foresee the time when
> automatic tuners are universal and the only meter on black boxes will
> be the S-meter.
>
> I don't doubt that you thoroughly understand how the so-called SWR
> meter works. But even the present discussion is enough to demonstrate
> that a simple change is needed. In the end it all reduces to
> economics and survival of the fittest argument.
> ----
> Reg, G4FGQ

Naw Reg, I dont have the slightest idea how a "VSWR meter" works. I was too quick with my response about the worth of VSWR. I thought the discussion was aimed toward the VSWR itself.
I've got to re-read that story about Silence is Golden and put it to practice.

Jerry

3925. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 18:01:23 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmi51jfug1@news.service.uci.edu>
Source record: 67322

Tom Donaly wrote:
> Jim Kelley wrote:
>
>> Reg Edwards wrote:
>>
>>> It is impossible for an E-field to exist without an H-field.
>>
>>
>>
>> Must have been before electrostatics was invented. :-)
>>
>> ac6xg
>>
>>
>
> How do you make an electrostatic radio wave?
> 73,
> Tom Donaly, KA6RUH

Certainly you're aware that radio waves don't have a monopoly on E fields, Tom.

73, jk

3926. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 18:09:37 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmi5h2$g7o$1@news.service.uci.edu>
Source record: 67323

Roy Lewallen wrote:

> Well, it's obvious that an electric field can move an electron. The
> Lorentz force law tells us how much force results from a given E field,
> and we can get the resulting acceleration from Newtonian physics. An
> everyday example is an oscilloscope deflection system which uses an
> electric field to deflect electrons. (Actually, modern digital scopes
> typically use raster displays with magnetic deflection -- but many of
> still have older analog types with electric field deflection.)

Yes, I thought that much was obvious as well.

> But if the antenna conductor were perfect, no E field at all could exist
> at the wire surface regardless of the amplitude of the E field of the
> oncoming wave. The wave's E field therefore couldn't directly influence
> the electrons in the (perfect) conductor. Only the H field of the wave,
> then, can induce a current in the perfect conductor. The direct
> influence of the E field on an imperfect conductor would be highly
> dependent on the conductivity of the wire, and I'd guess it would be
> very small compared to the influence of the H field from a typical
> oncoming wave on an electron in a good conductor. Maybe that's what he
> was saying.
>
> Roy Lewallen, W7EL

It could be what he was saying. But conductors are are called
conductors for a reason, and it's not necessarily because they conduct
magnetic fields well.

73, ac6xg

3927. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 18:17:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xW0jf.34376$6e1.14230@newssvr14.news.prodigy.com>
Source record: 67324

Jim Kelley wrote:
> Certainly you're aware that radio waves don't have a monopoly on E
> fields, Tom.

But they should have a monopoly on threads in this newsgroup. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3928. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 18:26:08 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmi6g0gog1@news.service.uci.edu>
Source record: 67325

Asimov wrote:

> "Jim Kelley" bravely wrote to "All" (28 Nov 05 11:52:53)
> --- on the heady topic of "Re: Antenna reception theory"
>
> JK> From: Jim Kelley <jwkelley@nospam.edu>
> JK> Xref: core-easynews rec.radio.amateur.antenna:220506
>
> JK> Reg Edwards wrote:
>
> > It is impossible for an E-field to exist without an H-field.
>
> JK> Must have been before electrostatics was invented. :-)
>
>
> Yes, but you are changing the topic into static fields. We were
> discussing changing electric fields, not statics but dynamics!

But do you agree that it's not impossible for an E field to exist
without an H field?

ac6xg

3929. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 18:37:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <pd1jf.34379$6e1.5666@newssvr14.news.prodigy.com>
Source record: 67176

Jim Kelley wrote:
> But do you agree that it's not impossible for an E field to exist
> without an H field?

Depends upon the context. I suspect he was talking within the
context of RF EM waves? Is it possible for an RF E-field to
exist without an RF H-field?
--
73, Cecil http://www.qsl.net/w5dxp

3930. re: inter-reaction of hf antennas on a small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 18:41:48 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1133289708.761566.263730@g44g2000cwa.googlegroups.com>
Source record: 67177

Dear Group,
I have two "main" antennas that I use in my small
lot. About 1/8 0f an acre
or say 70ft. wide by 140ft. deep. There are utility lines on one
side of my property.
One of the antennas is a full-wave loop for 80m. It is up about
30ft.,and feed at the
feedpoint by a 4/1 balun into good coax to the shack. The other
antenna is a dipole;
140ft long feed by ladderline to the shack. I have a tower(60ft)
and a couple of small
uhf and vhf beams also.
My question IS how are the near-fields and the far fields
INTEREACTING with the other
antennas ? What does one antenna DO the the transmit or recieve of
the other ?
How close can these antennas be to each other? What problems will
I get because
there is NOT enough space inbetween the elements ?

Paladin

3931. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 19:04:47 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndop9if.30qn.bit-bucket@shell.config.com>
Source record: 67178

On Tue, 29 Nov 2005 10:15:37 -0500, Jeff Dieterle wrote:
> I'm inside an office inside an old brick and steel factory and can get very
> little AM reception, only a few of the stations located in the same city. I
> ran RG6-U coax to the roof of the factory (appx.100ft) and considered buying
> a loop antenna but at this groups suggestion connected the coax to a long
> wire. The stations I'm interested in are Indianapolis 1070kc and Chicago
> 670kc & 1000kc. I installed 200ft of #12ga insulated wire that is orientated
> in line with these 2 cities and .....
^^^^^^^
???????

In-line? The wire should be broadside to the desired path of propagation.

> ... I can get these stations fine
> in the daytime with a reasonable amount of static but at night the static
> increases severely. Is there anything else I can do to make this a better
> antenna.

You never mention how far away you are from "... Indianapolis 1070kc and
Chicago 670kc & 1000kc." That'll have a LARGE bearing on the day/night
reception question.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

3932. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 19:09:32 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndop9rc.30qn.bit-bucket@shell.config.com>
Source record: 67179

On Tue, 29 Nov 2005 11:36:09 GMT, W. Watson wrote:
> I bought this antenna on a 30 day trial, and just got it about 12 hours ago.
> So far I'm not at all impressed. I live about 150 miles from an AM station,
> at 810, in the SF/SJ Bay Area, which has a marginal signal, but usually
> listenable. Putting a new PSU in a PC about a month ago increased the noise
> in AM radios 70-100' from the PC to an almost unacceptable level. I had
> hoped the antenna would boost the signal enough to knock down the noise.

The 'noise' is _also_ a signal -- just one that nobody wants to receive.
The "C. Crane's Twin Ferrite Antenna" happily 'improves' the reception
of the noise -- in addition to the signal(s) you desire.

Let me guess: That PSU was "Made in China".

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

3933. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 19:22:42 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dmi9q2$1ed2$1@f04n12.cac.psu.edu>
Source record: 67180

Tom Donaly wrote:
> Jim Kelley wrote:
>
>> Reg Edwards wrote:
>>
>>> It is impossible for an E-field to exist without an H-field.
>>
>>
>>
>> Must have been before electrostatics was invented. :-)
>>
>> ac6xg
>>
>>
>
> How do you make an electrostatic radio wave?

Wave to it first?

- 73 de Mike KB3EIA -

3934. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 19:27:29 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dmia31$1gha$1@f04n12.cac.psu.edu>
Source record: 67181

W. Watson wrote:

> I bought this antenna on a 30 day trial, and just got it about 12 hours
> ago. So far I'm not at all impressed. I live about 150 miles from an AM
> station, at 810, in the SF/SJ Bay Area, which has a marginal signal, but
> usually listenable. Putting a new PSU in a PC about a month ago
> increased the noise in AM radios 70-100' from the PC to an almost
> unacceptable level. I had hoped the antenna would boost the signal
> enough to knock down the noise. There are times when I can get a good
> signal from the station, but certainly less frequently than before.

Any rf noise put out by the computer ps is going to be picked up by
your antenna as well as the radio station you are trying to hear. So a
better antenna (if your new one is indeed better) wil just pick up
stronger power supply noise. It's moslty a null situation.

What you need to do is get that power supply fixed or replaced

- 73 de Mike KB3EIA -

3935. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 19:31:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11opb3rakuceo3d@corp.supernews.com>
Source record: 67182

Richard Harrison wrote:
> Roy, W7EL wrote:
> "But, if the antenna conductor were perfect, no E field at all could
> exist at the wire surface regardless of the magnitude of the E field of
> the oncoming wave."
>
> If we have a non-varying E field, a perfect conductor in the field would
> have the same voltage everywhere due to the short-circuit connecting all
> points.
>
> But, an electromagnetic wave sweeping the wire has an alternating
> electric field. Its phase is uniform (the same) across the wavefront
> because all points are equidistant from the source. A wire parallel to
> the E vector would simultaneously experience the same E field force
> throughout its length. "No E field at all could exist at the wire
> surface regardless of the magnitude of the E field of the oncoming
> wave,"
>
> Why must the wire be perfect?

A time-varying E field can exist in a non-perfect conductor; it cannot exist in a perfect conductor. You can find the explanation for why this is in any electromagnetics text.

Roy Lewallen, W7EL

3936. Re: inter-reaction of hf antennas on a small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 19:36:54 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dmiakm$1ghc$1@f04n12.cac.psu.edu>
Source record: 67183

Paladin wrote:

> Dear Group,
> I have two "main" antennas that I use in my small
> lot. About 1/8 0f an acre
> or say 70ft. wide by 140ft. deep. There are utility lines on one
> side of my property.
> One of the antennas is a full-wave loop for 80m. It is up about
> 30ft.,and feed at the
> feedpoint by a 4/1 balun into good coax to the shack. The other
> antenna is a dipole;
> 140ft long feed by ladderline to the shack. I have a tower(60ft)
> and a couple of small uhf and vhf beams also.
> My question IS how are the near-fields and the far fields
> INTEREACTING with the other antennas ? What does one antenna DO the
> the transmit or recieve of
> the other ? How close can these antennas be to each other?

Interesting. During the PAQSO party we had a similar situation as we
were operating 2 stations simultaneously.

As far as I know, the answer is "not much" on transmit. Less on
recieve. Now if you are trying to use both stations at the same time,
there can be a lot of problems. Our antennas were a tribander used on 20
meters, and a 40 meter dipole. We were both running power, and the 40
meter station was reaking havoc with me on 20 meters. I made a stub to
put on the 20 meter rig, and all was harmony.

The distance from the dipole to the tribander was areound 40 feet at
closest rotation angle.

>What problems will I get because there is NOT enough space in between the elements ?

Do you mean on the beams?

3937. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 19:42:05 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmiaueird1@news.service.uci.edu>
Source record: 67184

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> But do you agree that it's not impossible for an E field to exist
>> without an H field?
>
>
> Depends upon the context. I suspect he was talking within the
> context of RF EM waves?

That's certainly a context where an E field is always accompanied by an H field. But the statement as it was written is nevertheless untrue. That was my only point.

> Is it possible for an RF E-field to
> exist without an RF H-field?

Seems to beg an obvious answer. But the question brings up a point that people seem to be missing here. An E field is an E field - there are not different 'kinds' of E fields. The field itself is the same, whether it varies in time or not. A non-zero dE/dt allows for some of the more interesting properties to have non-zero solutions, but the fields themselves are not unique. I hope that concept isn't too controversial for this group. If it is, I will strive to keep such ideas to myself in the future.

ac6xg

3938. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 20:09:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Mz2jf.21279$7h7.4412@newssvr21.news.prodigy.com>
Source record: 67185

Jim Kelley wrote:
> The field itself is the same, whether it varies in time or not.

I wonder if that's true when taken out of context? :-)

I'm no physicist but wouldn't a static electric field
be made up of virtual photons while a dynamic electric
field would be made up of non-virtual photons?
--
73, Cecil http://www.qsl.net/w5dxp

3939. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 20:28:02 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmidki$k5n$1@news.service.uci.edu>
Source record: 67186

Cecil Moore wrote:
> Jim Kelley wrote:
>
>> The field itself is the same, whether it varies in time or not.
>
>
> I wonder if that's true when taken out of context? :-)
>
> I'm no physicist but wouldn't a static electric field
> be made up of virtual photons while a dynamic electric
> field would be made up of non-virtual photons?

Non-virtual photons, as opposed virtual non-photons I presume. I think physicists know they're going to have to wait until they get to the pearly gates before they can really learn what "electric fields are made out of". ;-)

73, jk

3940. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 20:37:00 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <i3dpo1db80g8faaflj8rku47adoj4v2bj8@4ax.com>
Source record: 67187

On Tue, 29 Nov 2005 14:14:15 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Have it your way Cecil...
>
>I hope you now see the advantage of being able to vary the
>length of the ladder-line until a current maximum point is
>located at the choke-balun. Knowing the impedance is purely
>resistive and relatively low allows me to read it with my
>MFJ-259B. That resistive point is on the ladder-line SWR circle
>on the Smith Chart. An arc of the SWR circle is the known length
>of the feedline which gives me the feedpoint impedance of the
>antenna (and can be adjusted for losses).

Cecil, you have a single solution, and you are inclined to transform every problem to require that single solution (read your posts).

Whilst step variable length transmission lines have application, they are not the solution to every problem, or indeed, to many problems. You are not the originator, nor the only user of such.

Since you mention the Smith chart, you are a champion of operating transmission lines at very high VSWR, and yet would suggest that a Smith chart can give you an adequate solution for the losses. That says more of what you consider adequate than the suitability of the Smith chart as a solver of that type of problem, especially in this day and age. I suggest that the Smith chart loss solution is adequate when you can ignore the losses.

I can visualise you sitting amidst an expensive heap of inch size pieces of LDF5-50 and a Bird 43, slide rule and Smith chart, with a caption "It is possible, and it is practical!".

Yes, you could say that I understand the advantages of a step variable length transmission line. It is probably why they are used as much as they are.

Owen
--

3941. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 20:40:18 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmiebi$kh4$1@news.service.uci.edu>
Source record: 67189

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> Certainly you're aware that radio waves don't have a monopoly on E
>> fields, Tom.
>
>
> But they should have a monopoly on threads in this newsgroup. :-)

Methinks you ridicule the optically disinclined, Cecil.

ac6xg

3942. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 20:46:24 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1efpo153ju7lgkn5hai1otaifo83rqi3u0@4ax.com>
Source record: 67188

On Tue, 29 Nov 2005 15:02:15 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Reg Edwards wrote:
>> You then include in the calculation the measurement or assumption of
>> the Zo of the 50-ohm coax, and the measurement or assumption of Zo of
>> the twin-line, and the forward and reverse powers, and the SWR on the
>> twin line can be deduced or assumed.
>
>Actually, nowadays I use my MFJ-259B to read the resistance at
>the choke-balun where I have adjusted the ladder-line length to
>guarantee the existence of a current maximum point. It's actually
>easier to do than to write about it. An assumption that Z0=50 ohms
>is not necessary.
>
>> But if you think you are measuring SWR on anything you are cheating
>> and fooling yourself.
>
>I actually have an SWR meter calibrated for balanced 380 ohms but it's
>in a box somewhere in my garage. I found my indirect measurements to
>be entirely accurate enough. In general, if one can isolate the problem
>to 10% of the Smith Chart, one can solve any problem by tweaking.
>
>Speaking of indirect measurements - let's say the feedline Z0 is 380
>ohms with a VF of 0.9 and a length of 90 ft. The measured resistance
>at the current maximum point is 30 ohms on 7.15 MHz. The SWR on the
>ladder-line is 380/30 = 12.7:1. The feedline is 0.727 wavelengths
>long. Plot the point 30/380 = 0.079 + j0 on a Smith Chart. Draw an
>SWR circle through that point. Backtrack from that point around the
>circle for 0.727 wavelengths and there's your antenna feedpoint
>impedance (neglecting losses). Losses can be taken into account by
>using SWR spirals instead of SWR circles. And of course, all of this
>is done by a computer program after just a few seconds of data entry.

So what is the answer to your example, the load Z, with and without
consideration of the losses?
--

3943. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 21:01:43 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438cb5c1@fidonet.org>
Source record: 67190

"Jim Kelley" bravely wrote to "All" (29 Nov 05 10:26:08)
--- on the heady topic of "Re: Antenna reception theory"

JK> From: Jim Kelley <jwkelley@nospam.edu>
JK> Xref: core-easynews rec.radio.amateur.antenna:220548

JK> Asimov wrote:

> "Jim Kelley" bravely wrote to "All" (28 Nov 05 11:52:53)
> --- on the heady topic of "Re: Antenna reception theory"
>
> JK> From: Jim Kelley <jwkelley@nospam.edu>
> JK> Xref: core-easynews rec.radio.amateur.antenna:220506
>
> JK> Reg Edwards wrote:
>
> > It is impossible for an E-field to exist without an H-field.
>
> JK> Must have been before electrostatics was invented. :-)
>
>
> Yes, but you are changing the topic into static fields. We were
> discussing changing electric fields, not statics but dynamics!

JK> But do you agree that it's not impossible for an E field to exist
JK> without an H field?

A static E field can exist alone but to detect it requires something
like a field-mill which basically converts it into a changing EM field
that can be readily detected. A simple field-mill is basically a
rapidly spinning antenna. Relativity at work.

A*s*i*m*o*v

... The truth is WAY out there!

3944. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 21:01:47 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438cb5c2@fidonet.org>
Source record: 67191

"Tim Wescott" bravely wrote to "All" (29 Nov 05 09:16:58)
--- on the heady topic of "Re: C. Crane's Twin Ferrite Antenna"

TW> From: Tim Wescott <tim@seemywebsite.com>
TW> Xref: core-easynews rec.radio.amateur.antenna:220543

[,,,]
TW> Generally if you have atmospheric or man-made noise increasing the
TW> antenna efficiency is just going to increase the noise along with the
TW> signal.

TW> You could try to make a directional antenna; this would increase your
TW> desired signal more than your noise.
[,,,]

I wonder if it would help putting up a short vertical and summing its
signal with such polarity that it cancels the noise from the main
directive antenna? This on the theory that most man-made noise is
by its nature vertically polarized.

A*s*i*m*o*v

... If you're not making waves, you're not rowing the boat

3945. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 21:35:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <FQ3jf.34404$6e1.32987@newssvr14.news.prodigy.com>
Source record: 67192

Owen Duffy wrote:
> So what is the answer to your example, the load Z, with and without
> consideration of the losses?

Sorry, I just got a new Dell and don't have my software loaded.
A quick pencil whipping of a Smith Chart graph yields a
load around 1140 - j1900 ohms which would be about right
for a 145 ft. dipole on 40m.
--
73, Cecil http://www.qsl.net/w5dxp

3946. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 21:43:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <FX3jf.34406$6e1.6360@newssvr14.news.prodigy.com>
Source record: 67193

Owen Duffy wrote:
> Cecil, you have a single solution, and you are inclined to transform
> every problem to require that single solution (read your posts).

No, my solution allows me to pull Reg's leg in arguments about
SWR meters since I don't use a tuner. :-) My solution also allows
me to get by without a 500 watt tuner for my SGC-500. The other
advantages are just frosting on the cake.
--
73, Cecil http://www.qsl.net/w5dxp

3947. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 21:43:49 UTC
From: richardharrison@webtv.net
Message-ID: <26586-438CCB95-839@storefull-3253.bay.webtv.net>
Source record: 67194

Reg, G4FGQ wrote:
"It is impossible for an E-field to exist without an H-field."

Agreed.

By definition an electromagnetic wave includes an electric component and a magnetic component. That does not mean the components are inseparable.

The purpose of a Faraday screen is to eliminate capacitive coupling while permitting magnetic coupling.

I`ve worked in several medium wave broadcast plants. In these, each tower was coupled through a 1:1 air-core transformer to its transmission line. The transformer consisted of two identical coils, one on either side of a Faraday screen. The coils shared a cmmon axis.

Electrically, the transformer was transparent at the transmitting frequency. It coupled the transmitting frequency as if the transformer did not exist to impede. Its purpose was to eliminate capacitive coupling, The Faraday screen provided a place where electric field lines are shunted to ground.
The problem with capacitive coupling between a transmitter and a tower is that the higher the frequency, the less the reactance or opposition. The coupling is better through a capacitance to the harmonics of a frequency than it is for the fundamental. The Faraday screen removes this unwanted bias for imroved harmonic propagation.

A side effect of the Faraday screen is that it removes lightning strokes before they reach the transmission line from the tower.

The Faraday screen looks like a metal rake. Its back where the teeth or tines join is firmly grounded. The teeth are open-circuited. Current cannot circulate between and through the teeth, so no counter electromotive force can be generated to oppose magnetic coupling between primary and secondary coils. The rake is transparent for magnetic coupling but it is a stopper for electric coupling.

By complete shielding, that is metalllically enclosihng one or both coils of an impedance coupling pair, magneric coupling between them can be practically eliminated. A coupling capacitor between the coils allows only the electric field to be effective. There`s no magnetic field involved.

I`m no advocate of the E-H antenna, but the electric and magnetic components of a wave are easily separated.

Best regards, Richard Harrison, KB5WZI

3948. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 22:27:17 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3fkpo1578sa6nejfr47umsq10d970jqjkc@4ax.com>
Source record: 67195

On Tue, 29 Nov 2005 21:35:33 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> So what is the answer to your example, the load Z, with and without
>> consideration of the losses?
>
>Sorry, I just got a new Dell and don't have my software loaded.
>A quick pencil whipping of a Smith Chart graph yields a
>load around 1140 - j1900 ohms which would be about right
>for a 145 ft. dipole on 40m.

You didn't differentiate between the lossy and lossless solutions. The difference isn't very much, I figure about 1100-j2000 vs 1000-j2170 which is real hard to resolve on the Smith chart. Smith chart programs solve the same tranmission line problems as underlies the Smith chart, but using a program provides much higher resolution, and the convenience and accuracy benefit of not having to find the solution in a normalised domain.

The Smith chart does not directly indicate the mismatch loss in the general case.

My online calculator at http://www.vk1od.net/tl/tllce.php produces an answer (considering loss) of 422.87-j1441.91 if the transmission line was 90' Wireman 552 and using Wes's characterisation of 552 for derivation of the fundamental line parameters (slightly different Zo to yours). Indicated line loss is 0.93 dB. (SWR is not used to arrive at the solution.)

Dan's TLD gives 432.7-j1459.0 using a slightly different transmission line approximation, and independently deriving the model from Wes's characterisation. Indicated line loss is 0.93 dB.

This demonstrates the sensitivity of the result to very slight variations in line parameters, consideration of loss, and the approximations used in modelling.

Owen
--

3949. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 22:30:16 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <YD4jf.4462$P33.992@trnddc01>
Source record: 67196

"Owen Duffy" <owen@no.where> wrote in message
news:1efpo153ju7lgkn5hai1otaifo83rqi3u0@4ax.com...
> On Tue, 29 Nov 2005 15:02:15 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>Reg Edwards wrote:
>>> You then include in the calculation the measurement or assumption of
>>> the Zo of the 50-ohm coax, and the measurement or assumption of Zo of
>>> the twin-line, and the forward and reverse powers, and the SWR on the
>>> twin line can be deduced or assumed.
>>
>>Actually, nowadays I use my MFJ-259B to read the resistance at
>>the choke-balun where I have adjusted the ladder-line length to
>>guarantee the existence of a current maximum point. It's actually
>>easier to do than to write about it. An assumption that Z0=50 ohms
>>is not necessary.
>>
>>> But if you think you are measuring SWR on anything you are cheating
>>> and fooling yourself.
>>
>>I actually have an SWR meter calibrated for balanced 380 ohms but it's
>>in a box somewhere in my garage. I found my indirect measurements to
>>be entirely accurate enough. In general, if one can isolate the problem
>>to 10% of the Smith Chart, one can solve any problem by tweaking.
>>
>>Speaking of indirect measurements - let's say the feedline Z0 is 380
>>ohms with a VF of 0.9 and a length of 90 ft. The measured resistance
>>at the current maximum point is 30 ohms on 7.15 MHz. The SWR on the
>>ladder-line is 380/30 = 12.7:1. The feedline is 0.727 wavelengths
>>long. Plot the point 30/380 = 0.079 + j0 on a Smith Chart. Draw an
>>SWR circle through that point. Backtrack from that point around the
>>circle for 0.727 wavelengths and there's your antenna feedpoint
>>impedance (neglecting losses). Losses can be taken into account by
>>using SWR spirals instead of SWR circles. And of course, all of this
>>is done by a computer program after just a few seconds of data entry.
>
> So what is the answer to your example, the load Z, with and without
> consideration of the losses?

Hi Owen

Did you mean to write the load impedance as 0.079 + j0? Or did you mean
0.079 + j1?

Jerry

3950. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 22:36:22 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <GJ4jf.84042$QM5.66467@tornado.socal.rr.com>
Source record: 67197

W. Watson wrote:
>
> I'll continue to experiment, but so far not so good. Comments?

As others have said, you should try to attenuate the noise at its source. If it is radiated, you need a better PSU. If it is coming out on the PCs AC line, line filters might help.

If the PC and KGO are not in the same direction, some sort of directional antenna might help.

Of course, the ultimate solution would be to move to SF and get a really big signal. But there are problems with that, too: I live abt 3-4 miles west of KNX (50 KW, 1070 KHz) and my problem is avoiding it, not making it stonger :)

Phil

3951. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 22:40:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11opm73g4plt772@corp.supernews.com>
Source record: 67198

I'm afraid your Faraday screen might not work quite like you think it does.

In the vicinity of the screen, the E field is indeed reduced. However, you haven't stripped off the E field from the EM wave, or separated it. The E field is largely reflected from the screen, but out of phase with the original wave. So the E/H ratio is smaller on *both* sides of the screen. Close to the screen, much of the energy formerly in the E field has been transferred to the H field. But as you go beyond the screen in either direction, you'll find the E field increasing and the H field decreasing as the energy redistributes itself. Within a short distance (typically considerably less than a wavelength, but depending on the size of the screen), the ratio of E/H will again be close to 377 ohms, assuming air is the surrounding medium. The Faraday screen works in the broadcast application only because the "shielded" component is close to the screen, where the E/H ratio is low.

In other words, you can modify the E/H ratio in a small region of space by moving the energy from one to the other. But you can't separate the two components or eliminate one or the other.

This is of course referring to time-varying, not static, fields. Reg's statement is technically false, since he didn't say whether the fields are time-varying -- static E and H fields can independently exist. But time-varying E and H fields, which I'm sure is what he meant, can't.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Reg, G4FGQ wrote:
> "It is impossible for an E-field to exist without an H-field."
>
> Agreed.
>
> By definition an electromagnetic wave includes an electric component and
> a magnetic component. That does not mean the components are inseparable.
>
> The purpose of a Faraday screen is to eliminate capacitive coupling
> while permitting magnetic coupling.
>
> I`ve worked in several medium wave broadcast plants. In these, each
> tower was coupled through a 1:1 air-core transformer to its transmission
> line. The transformer consisted of two identical coils, one on either
> side of a Faraday screen. The coils shared a cmmon axis.
>
> Electrically, the transformer was transparent at the transmitting
> frequency. It coupled the transmitting frequency as if the transformer

> did not exist to impede. Its purpose was to eliminate capacitive
> coupling, The Faraday screen provided a place where electric field lines
> are shunted to ground.
> The problem with capacitive coupling between a transmitter and a tower
> is that the higher the frequency, the less the reactance or opposition.
> The coupling is better through a capacitance to the harmonics of a
> frequency than it is for the fundamental. The Faraday screen removes
> this unwanted bias for imroved harmonic propagation.
>
> A side effect of the Faraday screen is that it removes lightning strokes
> before they reach the transmission line from the tower.
>
> The Faraday screen looks like a metal rake. Its back where the teeth or
> tines join is firmly grounded. The teeth are open-circuited. Current
> cannot circulate between and through the teeth, so no counter
> electromotive force can be generated to oppose magnetic coupling between
> primary and secondary coils. The rake is transparent for magnetic
> coupling but it is a stopper for electric coupling.
>
> By complete shielding, that is metalllically enclosihng one or both
> coils of an impedance coupling pair, magneric coupling between them can
> be practically eliminated. A coupling capacitor between the coils allows
> only the electric field to be effective. There`s no magnetic field
> involved.
>
> I`m no advocate of the E-H antenna, but the electric and magnetic
> components of a wave are easily separated.
>
> Best regards, Richard Harrison, KB5WZI
>

3952. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 22:46:41 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmiloh$nu5$1@news.service.uci.edu>
Source record: 67199

"Asimov" wrote:

> A static E field can exist alone but to detect it requires something
> like a field-mill which basically converts it into a changing EM field
> that can be readily detected. A simple field-mill is basically a
> rapidly spinning antenna. Relativity at work.

It's similar in some ways to a method for detecting magnetic fields used prior to the advent of Hall effect devices. Not sure how it relates to relativity.

Perhaps it's true that an electric field is simpler create than to detect by direct means. But it isn't really any more difficult than, for example, measuring power by direct means. I think Ben Franklin measured the E field in a Leyden Jar by calibrating the leaf displacement caused by the Coulomb force resulting from the electric field between the two similarly charged surfaces.

jk

3953. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 23:12:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Uf5jf.26479$Zv5.16509@newssvr25.news.prodigy.net>
Source record: 67200

Jerry Martes wrote:
> Did you mean to write the load impedance as 0.079 + j0? Or did you mean
> 0.079 + j1?

0.079 + j0 is the normalized impedance at a current
maximum point at the transmitter. The load impedance
is not given.
--
73, Cecil http://www.qsl.net/w5dxp

3954. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 23:31:38 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <ux5jf.7079$6e5.4923@trnddc09>
Source record: 67201

"Cecil Moore" <mycall@arrl.net> wrote in message
news:Uf5jf.26479$Zv5.16509@newssvr25.news.prodigy.net...
> Jerry Martes wrote:
>> Did you mean to write the load impedance as 0.079 + j0? Or did you
>> mean 0.079 + j1?
>
> 0.079 + j0 is the normalized impedance at a current
> maximum point at the transmitter. The load impedance
> is not given.
> --
> 73, Cecil http://www.qsl.net/w5dxp

I have *no* excuse for my not being able to read and think. i did
re-read the post and see whats being done.

Jerry

3955. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-29 23:43:06 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <el5jf.13254$F73.12675@trnddc03>
Source record: 67202

"Tim Wescott" <tim@seemywebsite.com> wrote in message
news:ZcKdneDicvRpERHenZ2dnUVZ_sednZ2d@web-ster.com...
> W. Watson wrote:
>> I bought this antenna on a 30 day trial, and just got it about 12 hours
>> ago. So far I'm not at all impressed. I live about 150 miles from an AM
>> station, at 810, in the SF/SJ Bay Area, which has a marginal signal, but
>> usually listenable. Putting a new PSU in a PC about a month ago increased
>> the noise in AM radios 70-100' from the PC to an almost unacceptable
>> level. I had hoped the antenna would boost the signal enough to knock
>> down the noise. There are times when I can get a good signal from the
>> station, but certainly less frequently than before.
>>
>> The antenna consists of three parts: a 600-1800 KHz control dial, a
>> ferrite antenna and something called the antenna element. The latter is
>> about 8" long by 3" by 1.5" (high). The idea is that one puts the ferrite
>> antenna very near the radio and the antenna element in some other spot,
>> then adjusts the control dial to the max strength. I detect zero change
>> in any AM signal from the (C. Crane) radio anywhere on the dial. The
>> antenna element can be grounded. I modestly did this by hooking a wire
>> (alligator clips) from the element to the ground socket of an AC outlet
>> (nail in the socket). No change. BTW, when I was doing the experiment
>> last evening, the signal was pretty decent during that period. In fact,
>> quite listenable. All this without the device though.
>>
>> I'll continue to experiment, but so far not so good. Comments?
>
> I'd change the power supply to a better brand.
>
> Generally if you have atmospheric or man-made noise increasing the antenna
> efficiency is just going to increase the noise along with the signal.
>
> You could try to make a directional antenna; this would increase your
> desired signal more than your noise.
>
> The antenna would have to be big, however. The wavelength at 800kHz is
> somewhere around 370 meters and you'd need to use around 1/4 of this.
>
The ferrite antennas are already directional. That is one of their
advantages.

> You could try to feed power supply noise to the radio antenna at just the
> right amplitude and phase to null it out. This would be a good subject
> for an undergraduate or even a Master's thesis in EE but probably not a
> good thing to do in practice.

These devices are well known and sold at least by 2 ham manufacturers- MFJ and Timewave(?).

Dale W4OP

3956. Stacking Satellite VHF and UHF F9FT Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 00:41:40 UTC
From: alain@alain.it
Message-ID: <1133311300.421664.127270@g44g2000cwa.googlegroups.com>
Source record: 67203

Hello all,

I actually own a 2x9 VHF and a 2x19 UHF by F9FT (Tonna).
Since I need better performance (especially on VHF) for LEO operations
I was thinking about stacking another antenna identical to the one I
already have.
The suggested stacking distance is 2.77 m. Since I am doing this
upgrade I tought about stacking another UHF antenna too so that I would
have an horizontal mast 3 meters long, with the VHF yagis at the ends
and the UHF yagis in the middle.

I have some questions:
1) Will the UHF yagis create troubles to the VHF since they are in the
middle?
2) What kind of real performance increase will I experience on VHF?
3) Can I couple the vertical elements with a coupler and the horizontal
elements with another coupler and then apply a RCHP/LCHP coupling
harness like I would normally do on a single antenna?

Thanks

Alain De Carolis
iz6byy ww3ww

3957. Re: Stacking Satellite VHF and UHF F9FT Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 02:34:38 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <1761b$438d0fc1$97d56a33$7844@ALLTEL.NET>
Source record: 67204

If everything is perfect, you will have an additional 3 dB gain.

<alain@alain.it> wrote in message
news:1133311300.421664.127270@g44g2000cwa.googlegroups.com...
> Hello all,
>
> I actually own a 2x9 VHF and a 2x19 UHF by F9FT (Tonna).
> Since I need better performance (especially on VHF) for LEO operations
> I was thinking about stacking another antenna identical to the one I
> already have.
> The suggested stacking distance is 2.77 m. Since I am doing this
> upgrade I tought about stacking another UHF antenna too so that I would
> have an horizontal mast 3 meters long, with the VHF yagis at the ends
> and the UHF yagis in the middle.
>
> I have some questions:
> 1) Will the UHF yagis create troubles to the VHF since they are in the
> middle?
> 2) What kind of real performance increase will I experience on VHF?
> 3) Can I couple the vertical elements with a coupler and the horizontal
> elements with another coupler and then apply a RCHP/LCHP coupling
> harness like I would normally do on a single antenna?
>
> Thanks
>
> Alain De Carolis
> iz6byy ww3ww
>

3958. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 02:49:53 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <lr8jf.2151$YT3.286@newsread3.news.pas.earthlink.net>
Source record: 67205

Cecil Moore wrote:
> W. Watson wrote:
>
>> Putting a new PSU in a PC about a month ago increased the noise in AM
>> radios 70-100' from the PC to an almost unacceptable level.
>
>
> Why do you think that's a radio problem? :-)
When I turn the computer off, the radio station noise drops dramatically. It doesn't matter if I use AC or DC. I can detect the large noise change in my car from the garage.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3959. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 02:54:34 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <Kv8jf.2154$YT3.16@newsread3.news.pas.earthlink.net>
Source record: 67206

Tim Wescott wrote:

> W. Watson wrote:
>
>> I bought this antenna on a 30 day trial, and just got it about 12
>> hours ago. So far I'm not at all impressed. I live about 150 miles
... snip

>> during that period. In fact, quite listenable. All this without the
>> device though.
>>
>> I'll continue to experiment, but so far not so good. Comments?
>
>
> I'd change the power supply to a better brand.
>
> Generally if you have atmospheric or man-made noise increasing the
> antenna efficiency is just going to increase the noise along with the
> signal.
>
> You could try to make a directional antenna; this would increase your
> desired signal more than your noise.
>
> The antenna would have to be big, however. The wavelength at 800kHz is
> somewhere around 370 meters and you'd need to use around 1/4 of this.
>
> You could try to feed power supply noise to the radio antenna at just
> the right amplitude and phase to null it out. This would be a good
> subject for an undergraduate or even a Master's thesis in EE but
> probably not a good thing to do in practice.
>
> You could attempt to shield it. Rat Shack has some clamp-on ferrites,
> you could put one of these on your power cord close to the end that
> plugs into the power supply. You could also make sure that the PC case
> is well shielded.
>
I tried the RS ferrites and they made no change. I even took barbell weights
and put them on the AC line of the PC. Zippo. If I hadn't already spent $60
for the new PSU six weeks ago, I might think of buying a much better one.

In some way this may be circuit dependent. I do believe I plugged in my
other PC to the same socket and had the same experience; however, when it's
plugged into its normal socket, there is no noticeable change.

Interestingly, bad weather moved in yesterday and today, and reception from the station has been quite good with the normal antenna. This stuff can get pretty strange.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39i¿½ 15' 7" N, 121i¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3960. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 02:57:14 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <438D1515.2030703@invalid.com>
Source record: 67207

Allodoxaphobia wrote:

> On Tue, 29 Nov 2005 11:36:09 GMT, W. Watson wrote:
>
>>I bought this antenna on a 30 day trial, and just got it about 12 hours ago.
>>So far I'm not at all impressed. I live about 150 miles from an AM station,
>>at 810, in the SF/SJ Bay Area, which has a marginal signal, but usually
>>listenable. Putting a new PSU in a PC about a month ago increased the noise
>>in AM radios 70-100' from the PC to an almost unacceptable level. I had
>>hoped the antenna would boost the signal enough to knock down the noise.
>
>
> The 'noise' is _also_ a signal -- just one that nobody wants to receive.
> The "C. Crane's Twin Ferrite Antenna" happily 'improves' the reception
> of the noise -- in addition to the signal(s) you desire.
>
> Let me guess: That PSU was "Made in China".
>
> Jonesy
Yes, you absolutely guessed the right country. I called the tech support and
they were less than useful. I asked about a circuit diagram. Sorry, we don't
have one to give out.

The trick here is that I see absolutely no change at all. One would think
maybe the volume might increase, but nay.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3961. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 02:59:54 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <KA8jf.2157$YT3.1758@newsread3.news.pas.earthlink.net>
Source record: 67208

Michael Coslo wrote:

> W. Watson wrote:
>
>> I bought this antenna on a 30 day trial, and just got it about 12
>> hours ago. So far I'm not at all impressed. I live about 150 miles
>> from an AM station, at 810, in the SF/SJ Bay Area, which has a
>> marginal signal, but usually listenable. Putting a new PSU in a PC
>> about a month ago increased the noise in AM radios 70-100' from the PC
>> to an almost unacceptable level. I had hoped the antenna would boost
>> the signal enough to knock down the noise. There are times when I can
>> get a good signal from the station, but certainly less frequently than
>> before.
>
>
> Any rf noise put out by the computer ps is going to be picked up by
> your antenna as well as the radio station you are trying to hear. So a
> better antenna (if your new one is indeed better) wil just pick up
> stronger power supply noise. It's moslty a null situation.
>
> What you need to do is get that power supply fixed or replaced
>
> - 73 de Mike KB3EIA -
>
I think the only solutions to the PSU problem is to buy a much better one.
As I mention above, that's probably a losing proposition. I doubt after 6
weeks they would take it back. It might be worth a try though. Note my
comment above to someone a few moments ago that this seems to be a household
circuit dependent problem. Another PC in the same room works fine until I
plug it into the socket that I first noticed the problem.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3962. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 03:02:10 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <SC8jf.2160$YT3.1674@newsread3.news.pas.earthlink.net>
Source record: 67209

Phil Wheeler wrote:

> W. Watson wrote:
>
>>
>> I'll continue to experiment, but so far not so good. Comments?
>
>
> As others have said, you should try to attenuate the noise at its
> source. If it is radiated, you need a better PSU. If it is coming out
> on the PCs AC line, line filters might help.
>
> If the PC and KGO are not in the same direction, some sort of
> directional antenna might help.
>
> Of course, the ultimate solution would be to move to SF and get a really
> big signal. But there are problems with that, too: I live abt 3-4 miles
> west of KNX (50 KW, 1070 KHz) and my problem is avoiding it, not making
> it stonger :)
>
> Phil
Yes, I've had that experience with close stations. You can probably listen
to it through the bed springs. :-)

Attempts to shield the AC with the RS ferrite block and a barbell weight
failed. See comment about household circuit dependency in my just posted
responses above yours.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3963. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 03:05:03 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <zF8jf.84064$QM5.35861@tornado.socal.rr.com>
Source record: 67210

W. Watson wrote:
>
> In some way this may be circuit dependent. I do believe I plugged in my
> other PC to the same socket and had the same experience; however, when
> it's plugged into its normal socket, there is no noticeable change.
>

Grounding issue?

3964. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 03:06:18 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <KG8jf.84065$QM5.28921@tornado.socal.rr.com>
Source record: 67211

W. Watson wrote:
> Phil Wheeler wrote:
>
>> W. Watson wrote:
>>
>>>
>>> I'll continue to experiment, but so far not so good. Comments?
>>
>>
>>
>> As others have said, you should try to attenuate the noise at its
>> source. If it is radiated, you need a better PSU. If it is coming
>> out on the PCs AC line, line filters might help.
>>
>> If the PC and KGO are not in the same direction, some sort of
>> directional antenna might help.
>>
>> Of course, the ultimate solution would be to move to SF and get a
>> really big signal. But there are problems with that, too: I live abt
>> 3-4 miles west of KNX (50 KW, 1070 KHz) and my problem is avoiding it,
>> not making it stonger :)
>>
>> Phil
>
> Yes, I've had that experience with close stations. You can probably
> listen to it through the bed springs. :-)
>

I hope not: Still use a water bed :)

> Attempts to shield the AC with the RS ferrite block and a barbell weight
> failed. See comment about household circuit dependency in my just posted
> responses above yours.
>

Got it!

3965. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 03:41:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mp7qo19tvtgvau814qib5gg4b132crk5vr@4ax.com>
Source record: 67212

On Wed, 30 Nov 2005 02:54:34 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

>Interestingly, bad weather moved in yesterday and today, and reception from
>the station has been quite good with the normal antenna. This stuff can get
>pretty strange.

Classic indication of a bad ground, or a ground loop.

73's
Richard Clark, KB7QHC

3966. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 03:42:32 UTC
From: dplatt@radagast.org
Message-ID: <11oq7t8ks5btc2d@corp.supernews.com>
Source record: 67213

In article <Kv8jf.2154$YT3.16@newsread3.news.pas.earthlink.net>,
W. Watson <wolf_tracks@invalid.com> wrote:

>I tried the RS ferrites and they made no change. I even took barbell weights
>and put them on the AC line of the PC. Zippo. If I hadn't already spent $60
>for the new PSU six weeks ago, I might think of buying a much better one.

Ferrites clamped around the power cable will help with common-mode RF
noise. They won't do anything to help cancel out differential-mode
noise.

It'd probably be beneficial for you to try to get a robust powerline
noise filter. These will filter out both common-mode noise, and
differential noise as well.

Unfortunately, it's possible that the new power supply is radiating RF
directly, rather than feeding it back into the mains. If so, nothing
other than replacing it, or switching to a PC case with better
shielding, is likely to help the problem.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3967. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 03:44:17 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <le9jf.2748$Hk1.601@newsread1.news.pas.earthlink.net>
Source record: 67214

Richard Clark wrote:

> On Wed, 30 Nov 2005 02:54:34 GMT, "W. Watson"
> <wolf_tracks@invalid.com> wrote:
>
>
>>Interestingly, bad weather moved in yesterday and today, and reception from
>>the station has been quite good with the normal antenna. This stuff can get
>>pretty strange.
>
>
> Classic indication of a bad ground, or a ground loop.
>
> 73's
> Richard Clark, KB7QHC
If so, how do I track it down?

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3968. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 04:02:20 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <_dmdnW6NerbRuRDeRVn-ug@adelphia.com>
Source record: 67215

W. Watson wrote:
> Michael Coslo wrote:
>
>> W. Watson wrote:
>>
>>> I bought this antenna on a 30 day trial, and just got it about 12
>>> hours ago. So far I'm not at all impressed. I live about 150 miles
>>> from an AM station, at 810, in the SF/SJ Bay Area, which has a
>>> marginal signal, but usually listenable. Putting a new PSU in a PC
>>> about a month ago increased the noise in AM radios 70-100' from the
>>> PC to an almost unacceptable level. I had hoped the antenna would
>>> boost the signal enough to knock down the noise. There are times when
>>> I can get a good signal from the station, but certainly less
>>> frequently than before.
>>
>>
>>
>> Any rf noise put out by the computer ps is going to be picked up
>> by your antenna as well as the radio station you are trying to hear.
>> So a better antenna (if your new one is indeed better) wil just pick
>> up stronger power supply noise. It's moslty a null situation.
>>
>> What you need to do is get that power supply fixed or replaced
>>
>> - 73 de Mike KB3EIA -
>>
> I think the only solutions to the PSU problem is to buy a much better
> one. As I mention above, that's probably a losing proposition. I doubt
> after 6 weeks they would take it back. It might be worth a try though.
> Note my comment above to someone a few moments ago that this seems to be
> a household circuit dependent problem. Another PC in the same room works
> fine until I plug it into the socket that I first noticed the problem.

Hmmm, just maybe, you might be able to ditch it as a warranty item.
Dunno tho' as it will depend on the outfit that sold it to you. I don't
know if you are a Ham or not, but if you are, you might play the part 15
card, as they are required to not interfere. I suspect that a 160 meter
rig might catch the same interference.

It is kind of a drag though, since IIRC a noisy switcher Power supply
is hard to fix. Good luck!

- 73 de Mike KB3EIA -

3969. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 04:14:39 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <mc9qo1dpnusnjhlrb09j7rd6he455klq4j@4ax.com>
Source record: 67216

On Wed, 30 Nov 2005 03:02:10 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

>Phil Wheeler wrote:
>
>> W. Watson wrote:
>>
>>>
>>> I'll continue to experiment, but so far not so good. Comments?
>>
>>
>> As others have said, you should try to attenuate the noise at its
>> source. If it is radiated, you need a better PSU. If it is coming out
>> on the PCs AC line, line filters might help.
>>
>> If the PC and KGO are not in the same direction, some sort of
>> directional antenna might help.
>>
>> Of course, the ultimate solution would be to move to SF and get a really
>> big signal. But there are problems with that, too: I live abt 3-4 miles
>> west of KNX (50 KW, 1070 KHz) and my problem is avoiding it, not making
>> it stonger :)
>>
>> Phil
>Yes, I've had that experience with close stations. You can probably listen
>to it through the bed springs. :-)
>
>Attempts to shield the AC with the RS ferrite block and a barbell weight
>failed. See comment about household circuit dependency in my just posted
>responses above yours.

Wayne,
You may wish to get one of those $5 circuit analyzers from your local
Lowe's/Home Depot/Tools R Us (yes, I realize this probably means a
drive to Grass Valley) and check for open ground connections on all
your sockets. I had grounding issues at my home and after getting a
shock while adjusting the hot water in the shower brought in an
electrician. He found many problems such as the hot and return
shorting on the bathtub (behind the wall of course where it can't be
seen) and most of my outlets did not have a ground. Had the house
re-wired and it got a bit more RF friendly - hope you find your issue
and don't have to rewire the house.

BTW, Nevada City is a nice place to call home - if you bump into
Mayor Arnett tell him that Howard from LA says hi.

Howard

3970. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 04:21:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7N9jf.21327$7h7.17117@newssvr21.news.prodigy.com>
Source record: 67217

W. Watson wrote:
> Cecil Moore wrote:
>> Why do you think that's a radio problem? :-)
>
> When I turn the computer off, the radio station noise drops
> dramatically. It doesn't matter if I use AC or DC. I can detect the
> large noise change in my car from the garage.

That sounds like a computer problem, not a radio problem.
What am I missing?
--
73, Cecil http://www.qsl.net/w5dxp

3971. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 04:34:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11oqaunilqhkn99@corp.supernews.com>
Source record: 67218

Dave Platt wrote:
> In article <Kv8jf.2154$YT3.16@newsread3.news.pas.earthlink.net>,
> W. Watson <wolf_tracks@invalid.com> wrote:
>
>
>>I tried the RS ferrites and they made no change. I even took barbell weights
>>and put them on the AC line of the PC. Zippo. If I hadn't already spent $60
>>for the new PSU six weeks ago, I might think of buying a much better one.
>
>
> Ferrites clamped around the power cable will help with common-mode RF
> noise. They won't do anything to help cancel out differential-mode
> noise.

Differential mode radiation is almost never a problem in situations like this. The differential mode component of the noise, by definition, is from equal and opposite noise currents on the two conductors (of the power line, for example). For this mode, the conductors comprise a transmission line, and radiation will be extremely small because the fields from the two very close and parallel conductors are equal in magnitude and opposite in direction.

Ferrites are a good suggestion, but the ones commonly used for RFI suppression are of a ferrite type which doesn't have an awful lot of attenuation as low as the AM broadcast band. Best would be some Fair-Rite 70 series, or other ferrite with an initial permeability of several thousand. Best would be to get a large core and wrap multiple turns on it with the power cord, as close to the PC as possible. This way, you get a lot more impedance than clamping cores onto the wire, since the impedance is proportional to the square of the number of turns. That is, 10 turns on a single core gives you the same impedance as 100 of the same cores clamped onto the cable.

> It'd probably be beneficial for you to try to get a robust powerline
> noise filter. These will filter out both common-mode noise, and
> differential noise as well.

A good power line filter isn't a bad idea, but differential mode filtering won't make any appreciable difference.
>
> Unfortunately, it's possible that the new power supply is radiating RF
> directly, rather than feeding it back into the mains. If so, nothing
> other than replacing it, or switching to a PC case with better
> shielding, is likely to help the problem.

To radiate any significant amount of energy requires some sort of antenna, so a power supply won't radiate much on its own. The trick, then, is to prevent the noise from getting from its source to the antenna. The most likely antenna is the power line, but any other wires connected to the computer can also serve this function. I'd start by disconnecting everything from the computer except the power line, getting the noise down with ferrites or a power line filter, then connecting one thing at a time and applying ferrites to the other wires as required. If wires inside the computer are acting as the antenna, the computer box should contain the noise to a high degree -- if you still have noise with only the power line connected and filtered, check the integrity of the computer case. Look for any seams that don't have good metal-to-metal contact between pieces.

Roy Lewallen, W7EL

3972. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 06:03:43 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <84gqo1pg64hh6n170mup6h0unn7g6tstil@4ax.com>
Source record: 67219

On Tue, 29 Nov 2005 22:30:16 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

> Did you mean to write the load impedance as 0.079 + j0? Or did you mean
>0.079 + j1?

I didn't write that, it was Cecil, and j0 would be correct.

Owen
--

3973. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 07:10:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bsiqo15obmpqea45ra0bl8v9l98q87128l@4ax.com>
Source record: 67220

On Wed, 30 Nov 2005 03:44:17 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

>If so, how do I track it down?

Hi OM,

You have already related other experience where you shared the same circuit as a noisy source (sharing the same circuit is easily identifiable as being on the same breaker). Moving to another circuit can be a solution. If it provides relief, then noise was coming by conduction (through the wires) rather than radiation (over the air).

Insofar as your specific weather related symptoms, this is usually related to a loose and corroded ground connection. The first place to start is with your panel's service ground. If you have other ground rods, then check them and INSURE they are also connected to the service ground.

In your shack, do not daisy-chain grounds - use a star configuration. However, you will probably still have mixed grounds with equipment interconnections (and some of them are obvious and in your face and are still invisible). That is OK if you also have the individual equipments grounded in that star configuration. One of those invisible gotchas is the equipment interface to a computer, with a dial-up modem, its connection to the phone line and its own ground (if in fact it exists). This ground path is one you stare at every day and never see - unless lightning is looking for ground in through it and into your shack.

To "track it down" requires that you pull every plug, break every breaker and listen (you will need a battery powered, ungrounded receiver that exhibits the problem to do this). Replace each one at a time until you re-achieve your problem - take one step back and focus there.

73's
Richard Clark, KB7QHC

3974. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 07:21:06 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns971DED8B77F7Fdoldridgsprintca@24.71.223.159>
Source record: 67221

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in news:dmf4fr$4cu$1
@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com:

>
> "Saandy wrote
>
>> you can't measure SWR.
> ==
>
> I am pleased you agree with me.
>
> ==
>> You can CALCULATE the SWR using the formula.
> ==
>
> But of what use is the SWR it after you have calculated it?
>
> To what transmission line does it apply? Where is it? What are the
> locations of max-volts and min-volts? It does NOT apply to the line
> between transmitter and antenna. I suggest it exists only in your
> imagination. ;o)

Heh heh. I remember one time a friend of mine was wailing that his fancy new outdoor 2m antenna wasn't working as good as the indoor mag-mount on a pie plate that he had been using.

I asked about his installation and he informed me that the antenna was properly installed and that the SWR was 1 to 1. So I inquired further. He was using a bridge to measure reflected power at the transmitter. And there really wasn't any. Then I asked him what he was using for transmission line. Turns out it was about 75 feet of cheap RG58. So I told him to take it off the antenna and see what the bridge said with no antenna. It climbed all the way to 1.2 to 1. In short, the coax was simply eating the power. Changing it out to better quality line proved to be the answer there.

SWR is so overrated. I'm in the process of putting together a modest balcony-based HF station. I'm much more interested in the efficiency of loading coils than in actual SWR on the coax. A 3-to-1 SWR on coax is meaningless at 80 meters. It adds only a fraction of a decibel to losses, even in RG58. But your transmitter might not like the complex load it is seeing at the end of that coax, hence the utility of a tuning device. Back in the day, I used to just ignore such issues because my transmitters had pretty good output tuning networks. But with the advent of broadbanded solid state finals, it is necessary to match the radio to

the transmission line's complex input impedance.

--
Dave Oldridge+
ICQ 1800667

3975. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 12:01:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmk4be$88n$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67222

"Saandy , wrote
> Guys, leave it alone! Just make sure that the SWR is a reasonable
> value, something that the transmitter can handle and leave it at
that.
==========
Saandy,

You are a man after my own heart.

I would further simplify it. No need to mention SWR. It is
meaningless. Just make sure the transmitter is loaded with about 50
ohms and leave it at that.

To make things nice and tidy, just change the name of the meter to TLI
= Transmitter Loading Indicator.

Reg, G4FGQ

3976. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 13:00:56 UTC
From: Over The Hill <conrad.h@canada.com>
Message-ID: <dohjf.5746$wf2.523709@news20.bellglobal.com>
Source record: 67223

Saandy , 4Z5KS wrote:
> ...if already going into it, a little bit of history.
> when the cows had bigger heads and the air was greener, there was no
> such thing as coax. what we used was the ubiquitous ladder wire, with
> an unknown impedance and with a frequency response depending on what
> the Gods ate at lunch! the VSWR story was not invented yet.
> What we did was one of two things: either tune the system for maximum
> current in the line or else used a light bulb in conjunction with a
> small light bulb and tuned for maximum brilliance. in neither case was
> SWR involved in the mess.
> the whole SWR uproar began after WW2 with the advent of coax and the
> new fangled theories. that was also the time when all kind of
> directional couplers came up.in due time a few wise guys developed all
> kinds of theories on the subject, and manged to convey the impression
> that SWR is king! nothing further from truth. what's really true is
> that reflections can cause the apparent impedance at the network's
> input to differ from Zo. SO WHAT? if you can adjust your matching
> network between the transmitter and the line for a match what do you
> care?
> actually the hitch is that, with a high SWR on the line, the losses go
> up. if the cable can take it, without melting no harm's done: whatever
> remains will get radiated. this was the good pint of open feeders: the
> losses were very low. an SWR fo 10 and more was insignificant from the
> losses' point ov view.
> Guys, leave it alone! Just make sure that the SWR is a reasonable
> value, something that the transmitter can handle and leave it at that.
> Saandy 4Z5KS

Some of what you say is very true. Especially in the world of HAM radio. How ever, this being an open forum, truth is of great importance. Your thesis on the "whys" of the importance of vswr measurements are incorrect in some areas.
Yes, importance grew with the advent of coaxial lines simply because of the relatively small distances between inner and outer conductors. That part is true.

However, until you've seen a 6" universal coaxial transmission line with no insulators or inner conductor remaining over a 350" run, I guess you can't really appreciate the need for monitoring and maintaining good "system" vswr characteristics.

Now to the measuring of said vswr. It can be done. In the broadcast world it's accomplished through the measurement of "Return Loss". By measuring the system return loss at the line input (generator end) and deducting twice the line attenuation, we get an indication of the load

return loss thesis value is easily converted to vswr.

Return Loss:
This is the dB value of absolute reflection coefficient.
It is rather curious concept of transmission engineering.
This loss value becomes 0 for 100% reflection and becomes infinite for
an ideal connection.

RL = 20log((VSWR+1) / (VSWR-1))

Voltage Standing Wave Ratio (VSWR):
This is the ratio of maximum voltage to minimum voltage
in standing wave pattern.
It varies from +1 to infinite.

VSWR = (1+(10^RL/20)) / ((10^RL/20)-1)

These are good and valid measurements which should be performed at
initial installation of the system and periodically verified throughout
the system life.

Return Loss/VSWR is only one of many measurements that should be
periodically done. DC measurements such as megger. LO-Ohms are also
very important.

--
Over The Hill

The question of whether computers can think is like the question of
whether submarines can swim.

Edsgar Dijkstra

3977. website about DXpeditions ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 13:17:31 UTC
From: Thierry <->
Message-ID: <438da66c$1@news.vo.lu>
Source record: 67224

Hi,

Simple question,

Is there somewhere on the Internet a website dedicated to the release of stories about DXpeditions (I think well to ARRL but their text is quite small), there are CQ and QST but its on paper and not dedicated, but rather a website covering most of these activities and in anotehr way that simply listing the date of their QRV (membres, qsl, date, story, rig, etc, etc) ?

Thanks in advance

Thierry
ON4SKY
http://www.astrosurf.org/lombry

--
Auteur de "Un si�cle de Physique, 1- La Physique Quantique", AEGEUS, 2005
My FAQ : http://www.astrosurf.org/lombry/faq-lombry.htm

3978. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 13:17:56 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <8Ehjf.2255$YT3.1169@newsread3.news.pas.earthlink.net>
Source record: 67225

Mike Coslo wrote:

> W. Watson wrote:
>
>> Michael Coslo wrote:
>>
>>> W. Watson wrote:
>>>
>>>> I bought this antenna on a 30 day trial, and just got it about 12
>>>> hours ago. So far I'm not at all impressed. I live about 150 miles
>>>> from an AM station, at 810, in the SF/SJ Bay Area, which has a
>>>> marginal signal, but usually listenable. Putting a new PSU in a PC
>>>> about a month ago increased the noise in AM radios 70-100' from the
>>>> PC to an almost unacceptable level. I had hoped the antenna would
>>>> boost the signal enough to knock down the noise. There are times
>>>> when I can get a good signal from the station, but certainly less
>>>> frequently than before.
>>>
>>>
>>>
>>>
>>> Any rf noise put out by the computer ps is going to be picked up
>>> by your antenna as well as the radio station you are trying to hear.
>>> So a better antenna (if your new one is indeed better) wil just pick
>>> up stronger power supply noise. It's moslty a null situation.
>>>
>>> What you need to do is get that power supply fixed or replaced
>>>
>>> - 73 de Mike KB3EIA -
>>>
>> I think the only solutions to the PSU problem is to buy a much better
>> one. As I mention above, that's probably a losing proposition. I doubt
>> after 6 weeks they would take it back. It might be worth a try though.
>> Note my comment above to someone a few moments ago that this seems to
>> be a household circuit dependent problem. Another PC in the same room
>> works fine until I plug it into the socket that I first noticed the
>> problem.
>
>
>
> Hmmm, just maybe, you might be able to ditch it as a warranty item.
> Dunno tho' as it will depend on the outfit that sold it to you. I don't
> know if you are a Ham or not, but if you are, you might play the part 15
> card, as they are required to not interfere. I suspect that a 160 meter

> rig might catch the same interference.
>
> It is kind of a drag though, since IIRC a noisy switcher Power
> supply is hard to fix. Good luck!
>
> - 73 de Mike KB3EIA -

I'm tempted, but somehow your message gave me another idea. I think I'm going to take the PC to an entirely different location miles from here and see if get the same problem.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3979. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 13:26:37 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <hMhjf.3661$A23.2841@newsread2.news.pas.earthlink.net>
Source record: 67226

Howard wrote:

> On Wed, 30 Nov 2005 03:02:10 GMT, "W. Watson"
> <wolf_tracks@invalid.com> wrote:
>
>
>>Phil Wheeler wrote:
>>
>>
>>>W. Watson wrote:
>>>
>>>
>>>>I'll continue to experiment, but so far not so good. Comments?
>>>
>>>
>>>As others have said, you should try to attenuate the noise at its
>>>source. If it is radiated, you need a better PSU. If it is coming out
>>>on the PCs AC line, line filters might help.
>>>
>>>If the PC and KGO are not in the same direction, some sort of
>>>directional antenna might help.
>>>
>>>Of course, the ultimate solution would be to move to SF and get a really
>>>big signal. But there are problems with that, too: I live abt 3-4 miles
>>>west of KNX (50 KW, 1070 KHz) and my problem is avoiding it, not making
>>>it stonger :)
>>>
>>>Phil
>>
>>Yes, I've had that experience with close stations. You can probably listen
>>to it through the bed springs. :-)
>>
>>Attempts to shield the AC with the RS ferrite block and a barbell weight
>>failed. See comment about household circuit dependency in my just posted
>>responses above yours.
>
>
> Wayne,
> You may wish to get one of those $5 circuit analyzers from your local
> Lowe's/Home Depot/Tools R Us (yes, I realize this probably means a
> drive to Grass Valley) and check for open ground connections on all
> your sockets. I had grounding issues at my home and after getting a
> shock while adjusting the hot water in the shower brought in an
> electrician. He found many problems such as the hot and return

> shorting on the bathtub (behind the wall of course where it can't be
> seen) and most of my outlets did not have a ground. Had the house
> re-wired and it got a bit more RF friendly - hope you find your issue
> and don't have to rewire the house.
>
> BTW, Nevada City is a nice place to call home - if you bump into
> Mayor Arnett tell him that Howard from LA says hi.
>
> Howard
Ah, you know about us. I'm not a ham, but I will be speaking to our local club in January about radio astronomy. I used to have my hair cut by the former mayor. I'll have to ask my present barber if he frequents her shop. Maybe he attends the ham meetings. I only go to them when I want to promote RA, which has been 3 times. Although I went a few weeks ago to find out if anyone had a Icom R7000 rcvr. No luck. However, my opportunity to buy one disappeared within a few days of that meeting.

I may have one of those analyzers here somewhere. Lowe's is a long way from here, but we have one very good hardware store that would be a good candidate.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3980. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 13:33:20 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <AShjf.3663$A23.273@newsread2.news.pas.earthlink.net>
Source record: 67227

Cecil Moore wrote:

> W. Watson wrote:
>
>> Cecil Moore wrote:
>>
>>> Why do you think that's a radio problem? :-)
>>
>>
>> When I turn the computer off, the radio station noise drops
>> dramatically. It doesn't matter if I use AC or DC. I can detect the
>> large noise change in my car from the garage.
>
>
> That sounds like a computer problem, not a radio problem.
> What am I missing?
Probably nothing. However, I'd be willing to bet that I wouldn't have this
problem if I were 100 miles closer to the radio station. The Crane device
has been so ineffective its baffling as an issue aside from the one about my
radio. I built an FM signal booster when I was 14 that showed more promise.
Well, I've got 28 more days to return it. If it shows nothing more, I will
be out about $7.00 for return postage--rental fee?

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

3981. Screwed up.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 14:40:14 UTC
From: TNT <tnt@comcast.net>
Message-ID: <WNKdnYiL8PpSJBDenZ2dnUVZ_tmdnZ2d@comcast.com>
Source record: 67228

After installing a 2 meter horz and a 6 meter horz beam, our mask was too short and the 2 meter beam was only 23" away from the 6 meter and the preformance for the 2 meter antenna sucked. I knew it should have been at least 40 " away. Now we are going to put up a cross boom, 10 feet across,and mount the antennas on each end, any thing to look for for other screwups?

3982. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 15:12:19 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438daf1f@fidonet.org>
Source record: 67229

"Jim Kelley" bravely wrote to "All" (29 Nov 05 14:46:41)
--- on the heady topic of "Re: Antenna reception theory"

JK> From: Jim Kelley <jwkelley@nospam.edu>
JK> Xref: core-easynews rec.radio.amateur.antenna:220573

JK> "Asimov" wrote:

> A static E field can exist alone but to detect it requires something
> like a field-mill

JK> It's similar in some ways to a method for detecting magnetic fields
JK> used prior to the advent of Hall effect devices. Not sure how it
JK> relates to relativity.

I think a saturable core can be used to measure a static magnetic
field. Early computer magnetic core memories worked like this.

Relativity transforms static fields into dynamic fields by adding a
velocity component to the measurement.

JK> Perhaps it's true that an electric field is simpler create than to
JK> detect by direct means. But it isn't really any more difficult than,
JK> for example, measuring power by direct means. I think Ben Franklin
JK> measured the E field in a Leyden Jar by calibrating the leaf
JK> displacement caused by the Coulomb force resulting from the electric
JK> field between the two similarly charged surfaces.

That Leyden Jar experiment was measuring charges not the E field
itself. An E field doesn't require the exchange of charges.
I wonder if it is possible to directly measure an E field by the
effect of the virtual quanta in its close vicinity?

A*s*i*m*o*v

... Quoting one is plagiarism. Quoting many is research.

3983. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 15:27:25 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <11orh6rkdfkqj6a@corp.supernews.com>
Source record: 67230

Ya I know, if I move it to right angles the length will shorten to around
40ft. Do you think it would make much difference ?
"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrndop9if.30qn.bit-bucket@shell.config.com...
> On Tue, 29 Nov 2005 10:15:37 -0500, Jeff Dieterle wrote:
>> I'm inside an office inside an old brick and steel factory and can get
>> very
>> little AM reception, only a few of the stations located in the same
>> city. I
>> ran RG6-U coax to the roof of the factory (appx.100ft) and considered
>> buying
>> a loop antenna but at this groups suggestion connected the coax to a long
>> wire. The stations I'm interested in are Indianapolis 1070kc and Chicago
>> 670kc & 1000kc. I installed 200ft of #12ga insulated wire that is
>> orientated
>> in line with these 2 cities and .....
> ^^^^^^^
> ???????
>
> In-line? The wire should be broadside to the desired path of propagation.
>
>
>> ... I can get these stations fine
>> in the daytime with a reasonable amount of static but at night the static
>> increases severely. Is there anything else I can do to make this a
>> better
>> antenna.
>
> You never mention how far away you are from "... Indianapolis 1070kc and
> Chicago 670kc & 1000kc." That'll have a LARGE bearing on the day/night
> reception question.
>
> Jonesy
> --
> Marvin L Jones | jonz | W3DHJ | linux
> Pueblo, Colorado | @ | Jonesy | OS/2 __
> 38.24N 104.55W | config.com | DM78rf | SK

3984. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 15:53:50 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <iWjjf.28789$tV6.19633@newssvr27.news.prodigy.net>
Source record: 67231

> I wonder if it is possible to directly measure an E field by the
> effect of the virtual quanta in its close vicinity?

If the effect of virtual quanta could be measured,
would they still be virtual?
--
73, Cecil http://www.qsl.net/w5dxp

3985. Re: WorldRadio Magazine Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 16:56:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <aRkjf.21391$7h7.11857@newssvr21.news.prodigy.com>
Source record: 67232

Cecil Moore wrote:
> Part 1 of my WorldRadio Oct. 2005 energy analysis article is
> now available on my web page in Microsoft Word .doc format.

For those of you not running Microsoft Word, the article is
available in Adobe .pdf format. Please excuse the commercial
at the bottom of the pages. (I'm too cheap to buy the full
version of PDF4U.) :-)
--
73, Cecil http://www.qsl.net/w5dxp/energy.pdf

3986. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 17:08:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <f0ljf.21393$7h7.10751@newssvr21.news.prodigy.com>
Source record: 67233

Owen Duffy wrote:
> You didn't differentiate between the lossy and lossless solutions. The
> difference isn't very much, I figure about 1100-j2000 vs 1000-j2170
> which is real hard to resolve on the Smith chart.

Owen, it's pretty obvious that you were manufactured with a
lower tolerance (+/- 0.1%) than I was (+/- 20%). :-) Over on
QRZ.com, I suggested that the average amateur radio operator
has a hard time implementing a choke in a high-impedance
environment. W8JI said he could do it. I responded that, by
no stretch of the imagination, was he an "average amateur
radio operator". :-)
--
73, Cecil http://www.qsl.net/w5dxp

3987. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 17:56:52 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmkp55$3a8$1@news.service.uci.edu>
Source record: 67234

Asimov wrote:

> I think a saturable core can be used to measure a static magnetic
> field. Early computer magnetic core memories worked like this.

I was referring to the similarity to a rotating coil gaussmeter. I think what you're describing now is something more akin to the fluxgate magnetometer.

> Relativity transforms static fields into dynamic fields by adding a
> velocity component to the measurement.

I see. Is Omni magazine still in print by any chance?

> That Leyden Jar experiment was measuring charges not the E field
> itself.

Leyden jars store charge. As I said before, they produce an indication by relying on the electric field between charged surfaces and the resulting Coulomb force. The more charge stored in the jar, the greater the electric field. Charge, E field, and Coulomb force all being in proportion, the Leyden jar produces a response in proportion to all three.

jk

3988. Re: website about DXpeditions ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 18:01:29 UTC
From: Bob Nielsen <nielsen@oz.net>
Message-ID: <pan.2005.11.30.18.01.29.697156@oz.net>
Source record: 67235

On Wed, 30 Nov 2005 14:17:31 +0100, Thierry wrote:

> Hi,
>
> Simple question,
>
> Is there somewhere on the Internet a website dedicated to the release of
> stories about DXpeditions (I think well to ARRL but their text is quite
> small), there are CQ and QST but its on paper and not dedicated, but rather
> a website covering most of these activities and in anotehr way that simply
> listing the date of their QRV (membres, qsl, date, story, rig, etc, etc) ?

NG3K's Announced DX Operations page
<http://www.cpcug.org/user/wfeidt/Misc/adxo.html> lists DXpeditions and
has links to the DXpedition web page, if one exists.

73, Bob N7XY

3989. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 18:14:01 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <wXljf.4049$Et5.228801@news20.bellglobal.com>
Source record: 67237

"Jeff Dieterle" <jdieter@nospam.carlnet.org> wrote in message
news:11orh6rkdfkqj6a@corp.supernews.com...
> Ya I know, if I move it to right angles the length will shorten to around
> 40ft. Do you think it would make much difference ?
> "Allodoxaphobia" <bit-bucket@config.com> wrote in message
> news:slrndop9if.30qn.bit-bucket@shell.config.com...
>> On Tue, 29 Nov 2005 10:15:37 -0500, Jeff Dieterle wrote:
>>> I'm inside an office inside an old brick and steel factory and can get
>>> very
>>> little AM reception, only a few of the stations located in the same
>>> city. I
>>> ran RG6-U coax to the roof of the factory (appx.100ft) and considered
>>> buying
>>> a loop antenna but at this groups suggestion connected the coax to a
>>> long
>>> wire. The stations I'm interested in are Indianapolis 1070kc and Chicago
>>> 670kc & 1000kc. I installed 200ft of #12ga insulated wire that is
>>> orientated
>>> in line with these 2 cities and .....
>> ^^^^^^^
>> ???????
>>
>> In-line? The wire should be broadside to the desired path of
>> propagation.
>>
>>
>>> ... I can get these stations fine
>>> in the daytime with a reasonable amount of static but at night the
>>> static
>>> increases severely. Is there anything else I can do to make this a
>>> better
>>> antenna.
>>
>> You never mention how far away you are from "... Indianapolis 1070kc and
>> Chicago 670kc & 1000kc." That'll have a LARGE bearing on the day/night
>> reception question.
>>
>> Jonesy
>> --
>> Marvin L Jones | jonz | W3DHJ | linux
>> Pueblo, Colorado | @ | Jonesy | OS/2 __
>> 38.24N 104.55W | config.com | DM78rf | SK
>
>

One wavelength at a frequency of say 1070 kcs is a little less than 300 metres (approx 1000 feet?).
An antenna of either length will be very 'short' compared to the 'wavelengths' involved and will not be close to resonance.
e.g. For quarter wave resonance (approx 75 metres or about 250 feet; for 1070 kcs and nearly 400 feet for say 670 kcs) required.
Any 'too short' antenna will be will be badly mismatched (energy loss!) to the impedance of the co-ax.
This suggest that some kind of untuned impedance matching transformer, suitable for the frequencies in question, might be used to transfer as much energy as possible to the co-ax transmission line?
Seen this done with short 'whip' antenna operating at Broadcast Band/Medium Wave frequencies.
Transmission line should also be matched at the receiver end?
100 feet of coax at those frequencies should have low loss?

3990. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 18:20:03 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dmkqgj$d24$1@f04n12.cac.psu.edu>
Source record: 67236

W. Watson wrote:
> Cecil Moore wrote:
>
>> W. Watson wrote:
>>
>>> Cecil Moore wrote:
>>>
>>>> Why do you think that's a radio problem? :-)
>>>
>>>
>>>
>>> When I turn the computer off, the radio station noise drops
>>> dramatically. It doesn't matter if I use AC or DC. I can detect the
>>> large noise change in my car from the garage.
>>
>>
>>
>> That sounds like a computer problem, not a radio problem.
>> What am I missing?
>
> Probably nothing. However, I'd be willing to bet that I wouldn't have
> this problem if I were 100 miles closer to the radio station.

Absolutely. If the station signal is relatively stronger than the computer noise, the computer's RFI will not be so much an issue. Right now, they are about the same strength. Moving the computer will probably help a lot.

Just out of curiosity, what is the frequency of the station you are trying to recieve?

And while we are at it, is the noise on the radio in just one spot, or is it on pretty much the whole band?

- 73 de Mike KB3EIA -

3991. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 18:50:31 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <djqro1d0e4uqmttefguv63ja8iv806sfc2@4ax.com>
Source record: 67238

On Wed, 30 Nov 2005 13:26:37 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

> W. Watson wrote:
> I'll continue to experiment, but so far not
> so good. Comments?

I would like to relate my experience. As you
did, I carefully selected a new computer case
and power supply from the stock at <redacted>,
paying careful attention to the FCC logo on the
power supply. After moving the mother board
over and turning it on, it completely wiped
out reception of the local 5kW station on 550 kHz.
Fortunately, I had picked up a couple of surplus
Corcom line filters (Model # 10ESK7)at a local
hamfest three years earlier (it pays to collect
junk). I spliced it into the computer power
cord and it cured the problem completely.

I don't have any experience with the Radio
Shack line filter (Catalog # 15-1111), but it
looks like it might do the job for you.

73, Jim, K7JEB

3992. Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 19:24:47 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11orv408qms0pfd@corp.supernews.com>
Source record: 67239

I recently bought a Larsen 2m/70cm NMO mag-mount mobile antenna for my truck. It's the first time I've ever owned a mobile antenna because I don't do that much driving (I work from home). I don't have a mobile radio in the truck, I just have an HT.

What I wanted to do was hook up my Icom W32A to the mobile antenna when I'm in the truck. So, I put the mag-mount on the middle of the pickup roof and started driving. I compared the mobile Larsen antenna to my Diamond RH77CA HT antenna. What I noticed is that with the Diamond antenna on the HT inside the truck, it consistently pulls in more signal (on both bands) than the Larsen mobile outside the truck. The Diamond antenna is of course an HT antenna, so it's optimized for HT use.

Is this normal behavior for a mobile antenna hooked up to an HT? If it's not normal, then this is not that great of a mobile antenna.

Rod KI7CQ

3993. Re: Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 19:34:04 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <NvKdnR9-7PNAYxDeRVn-rQ@comcast.com>
Source record: 67240

There is something wrong in your setup or installation.

I use the Larsen dual band with great success!!

Do you have pinched coax? Do you have a broken coax connector? How is
the coax run from outside to inside?

Can you give us some details?

Rod Maupin wrote:

> I recently bought a Larsen 2m/70cm NMO mag-mount mobile antenna for my
> truck. It's the first time I've ever owned a mobile antenna because I don't
> do that much driving (I work from home). I don't have a mobile radio in the
> truck, I just have an HT.
>
> What I wanted to do was hook up my Icom W32A to the mobile antenna when I'm
> in the truck. So, I put the mag-mount on the middle of the pickup roof and
> started driving. I compared the mobile Larsen antenna to my Diamond RH77CA
> HT antenna. What I noticed is that with the Diamond antenna on the HT
> inside the truck, it consistently pulls in more signal (on both bands) than
> the Larsen mobile outside the truck. The Diamond antenna is of course an HT
> antenna, so it's optimized for HT use.
>
> Is this normal behavior for a mobile antenna hooked up to an HT? If it's
> not normal, then this is not that great of a mobile antenna.
>
> Rod KI7CQ
>
>

3994. Re: WorldRadio Magazine Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 19:34:50 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11orvmp8ac1idbd@corp.supernews.com>
Source record: 67241

Nice article, Cecil.

Rod KI7CQ

3995. Re: Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 19:44:21 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11os08jsfscp90f@corp.supernews.com>
Source record: 67242

I stuck the mag mount on the roof and ran the coax in through the sliding window on the back of the cab, so as not to pinch the cable. I had to use a UHF to BNC adapter to hook the cable to the HT.

I just checked and I don't see any pinched places in the coax.

Rod

3996. Re: WorldRadio Magazine Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 19:54:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Jrnjf.21183$D13.16450@newssvr11.news.prodigy.com>
Source record: 67243

Rod Maupin wrote:
> Nice article, Cecil.

Thanks Rod. I expect to post part II to my web page at the
end of Dec. and part III at the end of Jan. The real meat
is in part II. The amazingly useful stuff is in part III
where the special-case (matched case) is actually the norm
for amateur radio operators.
--
73, Cecil http://www.qsl.net/w5dxp

3997. Re: Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 19:55:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Msnjf.21184$D13.16747@newssvr11.news.prodigy.com>
Source record: 67244

Rod Maupin wrote:
> I just checked and I don't see any pinched places in the coax.

Hang an MFJ-259B or 269 on it and find out what's wrong.
--
73, Cecil http://www.qsl.net/w5dxp

3998. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 20:06:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0k0so1hqr95fd08kelufhnn07a3mkk72s9@4ax.com>
Source record: 67245

On Wed, 30 Nov 2005 17:08:27 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen, it's pretty obvious that you were manufactured with a
>lower tolerance (+/- 0.1%) than I was (+/- 20%). :-) Over on

Perhaps...

Now, I think you have told us over several articles that you are using an SGC500 into a 30 ohm load on 7.15MHz. That 30 ohm load is a result of feeding a dipole with 90' of ladderline, which I estimate has 0.9dB of loss under those circumstances.

If your transmitter was delivering 500W to the feedline, about 100W is lost in the feeder.

Do you know how much power your amplifier delivers to the feedline? It is likely that with a load VSWR of 1.7 it may have reduced output, it is also possible that it is delivering even more than 500W to the low Z load.

Owen
--

3999. Re: Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 20:26:18 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11os2n8psrgmq3f@corp.supernews.com>
Source record: 67246

I'll have to get an MFJ meter and check it out. I've been putting off buying one anyway. Seems like they would be nice to have.

Rod

4000. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 21:01:57 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438e01a5@fidonet.org>
Source record: 67247

"Cecil Moore" bravely wrote to "All" (30 Nov 05 15:53:50)
--- on the heady topic of "Re: Antenna reception theory"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:220639

> I wonder if it is possible to directly measure an E field by the
> effect of the virtual quanta in its close vicinity?

CM> If the effect of virtual quanta could be measured,
CM> would they still be virtual?

Yes, there is a measurable force. The Casimir Effect is the action
virtual particles have on a pair of parallel metal plates, pushing
them together (only by an extremely tiny amount). This is because more
virtual particles are created outside the plates than between them.

A*s*i*m*o*v

... There are subliminal messages in Campbell's Alphabet Soup!

4001. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 21:02:01 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438e01a7@fidonet.org>
Source record: 67248

"Jim Kelley" bravely wrote to "All" (30 Nov 05 09:56:52)
--- on the heady topic of "Re: Antenna reception theory"

JK> From: Jim Kelley <jwkelley@nospam.edu>
JK> Xref: core-easynews rec.radio.amateur.antenna:220642

JK> Asimov wrote:

> I think a saturable core can be used to measure a static magnetic
> field. Early computer magnetic core memories worked like this.

JK> I was referring to the similarity to a rotating coil gaussmeter. I
JK> think what you're describing now is something more akin to the
JK> fluxgate magnetometer.

> Relativity transforms static fields into dynamic fields by adding a
> velocity component to the measurement.

JK> I see. Is Omni magazine still in print by any chance?

Omni is not my cup of tea. Much too glossy for me!
What I meant was if the person taking the measurement is in motion
relative to the field, then the field will seem to be dynamic.

A*s*i*m*o*v

... This is an SOS call from the mining ship Red Dwarf

4002. Re: inter-reaction of hf antennas on a small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 21:05:39 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1133384739.587247.226300@g14g2000cwa.googlegroups.com>
Source record: 67249

No,not the small beams. I'm mostly worried about the 2 large HF
antennas. The loop
for 80m encircles one leg of the linear-loaded dipole. I was under
the impression that
the "inside" of a loop on HF is the most important factor. I.E., a
circle is THE best loop!
The most area 'inside" makes for the best trans. and recieve.
No, I never use both at the same time. On
recieve,maybe. Do you think that
the SWR's would be different IF they weren't near each other!

Thanks for the interest !

4003. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 21:35:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <EWojf.21427$7h7.3321@newssvr21.news.prodigy.com>
Source record: 67250

Owen Duffy wrote:
> Now, I think you have told us over several articles that you are using
> an SGC500 into a 30 ohm load on 7.15MHz.

Now please be a gentleman and please don't go putting words in my mouth.
Here a quote of my exact words:

"Speaking of indirect measurements - let's say the feedline Z0 is 380
ohms with a VF of 0.9 and a length of 90 ft. The measured resistance
at the current maximum point is 30 ohms on 7.15 MHz."

Clearly, "let's say", is a hypothetical postulate. I freely admit that
I pulled those values out of thin air. Going back to my web page reveals
that the feedpoint impedance on 40m for my 130 ft. dipole was really 38
ohms. Nonetheless, I can still make my point assuming the 30 ohm value
which would have been perfectly acceptable to me.

> If your transmitter was delivering 500W to the feedline, about 100W is
> lost in the feeder.

With a 1.7:1 SWR???? Maybe you should reprogram your calculator to take
the square root???? The ratio of Pref/Pfor for an SWR of 1.7:1 is 0.067.
Methinks you might be using the voltage reflection coefficient?

500(0.067) is 34 watts, not 100 watts. The SGC-500 laughes at 34 watts
reflected. (I swear that is true. I have heard it laughing to itself in
the wee hours during a contest.) Seriously, that amp is not known as
"The Brick" just because it looks like a brick.

> Do you know how much power your amplifier delivers to the feedline? It
> is likely that with a load VSWR of 1.7 it may have reduced output, it
> is also possible that it is delivering even more than 500W to the low
> Z load.

An SWR of 1.7:1 is nothing to worry about unless you think the percentage
power reflected is the same as the percentage voltage reflected. Don't feel
bad, many others have made that same mistake. Most people are programmed not
to think within a power/energy context and it gets them into trouble with
such concepts as "reflected power just sloshes around from side-to-side" and
"gobbledegook" applied to any attempt to track energy in a transmision line.

The SGC-500 is speced to tolerate an SWR of 6:1. That means that it can
dissipate more than half of its output power and keep on ticking. I
don't recommend allowing that to happen but that spec is why I don't worry
at all about reflected power unless the SWR is in excess of 2:1.

If we keep arguing, one of us is bound to make a mistake that the other catches. I would guess that your above mistake bothers you a lot more than it bothers me. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4004. The annual Wireless Innovation Contest announces its call for entries.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 21:37:54 UTC
From: WIC'06 <darriel@winbc.org>
Message-ID: <1133386674.916004.257720@f14g2000cwb.googlegroups.com>
Source record: 67251

Get your innovation noticed. The Wireless Innovation Network of BC (WINBC), along with its key sponsors Lucent, Nokia and TELUS Mobility is now accepting entries for the Wireless Innovation Contest 2006 (WIC'06).

WIC'06 is looking for looking for wireless success stories and solutions that are tearing down barriers and showing the most promise for rapid market adoption.

With an estimated benefit valued at $100,000, WIC'06 winners are rewarded with targeted exposure in media and at trade shows, inclusion in a special case study publication, and a one-hour mentor session with the panel of judges during CTIA Wireless.

Find out more today by visiting www.winbc.org/contest.

4005. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 21:41:24 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <80pjf.21431$7h7.14676@newssvr21.news.prodigy.com>
Source record: 67252

Cecil Moore wrote:

> Owen Duffy wrote:
>> If your transmitter was delivering 500W to the feedline, about 100W is
>> lost in the feeder.
>
> With a 1.7:1 SWR???? Maybe you should reprogram your calculator to take
> the square root???? The ratio of Pref/Pfor for an SWR of 1.7:1 is 0.067.
> Methinks you might be using the voltage reflection coefficient?

Sorry, I read that as 100W lost in the amplifier. Macular Degeneration
strikes again.
--
73, Cecil http://www.qsl.net/w5dxp

4006. Re: Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 21:45:01 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <HLednYkGEKQOgBPeRVn-pw@comcast.com>
Source record: 67253

Rod Maupin wrote:

> I'll have to get an MFJ meter and check it out. I've been putting off
> buying one anyway. Seems like they would be nice to have.
>
> Rod
>
>
Check with the local Ham Club. Someone there simply has to have one. You
know, the guy, who needs everything :-)

They are very nice!! I have the MFJ 259B. [I guess I'm the guy who has
to have everything <grin>]

If you live in Southern NH, Southern Me or Northern Ma I can meet you
and run a quick test.

Contact me OFF the list if it is suitable.

4007. Re: Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 22:04:14 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11os8et3cm0o14c@corp.supernews.com>
Source record: 67254

Thanks for the offer Amos, but I live in WA state. Too far of a drive for you.

I actually have my radio club meeting tonight. So, I'll have to ask someone.

The main thing is that you told me it wasn't normal, which makes me feel better.

Rod

4008. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 22:14:55 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1c8so1tpnnqmn2at06s2djk2k240bco793@4ax.com>
Source record: 67255

On Wed, 30 Nov 2005 21:35:32 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Now, I think you have told us over several articles that you are using
>> an SGC500 into a 30 ohm load on 7.15MHz.
>
>Now please be a gentleman and please don't go putting words in my mouth.

Well, there was some uncertainty, and it is why I opened with "I
think...".

>Here a quote of my exact words:
>
>"Speaking of indirect measurements - let's say the feedline Z0 is 380
>ohms with a VF of 0.9 and a length of 90 ft. The measured resistance
>at the current maximum point is 30 ohms on 7.15 MHz."
>
>Clearly, "let's say", is a hypothetical postulate. I freely admit that
>I pulled those values out of thin air. Going back to my web page reveals
>that the feedpoint impedance on 40m for my 130 ft. dipole was really 38
>ohms. Nonetheless, I can still make my point assuming the 30 ohm value
>which would have been perfectly acceptable to me.
>
>> If your transmitter was delivering 500W to the feedline, about 100W is
>> lost in the feeder.
>
>With a 1.7:1 SWR???? Maybe you should reprogram your calculator to take
>the square root???? The ratio of Pref/Pfor for an SWR of 1.7:1 is 0.067.
>Methinks you might be using the voltage reflection coefficient?

Ok, I saw your later post where you have note that you were on the
wrong track here.

>
>500(0.067) is 34 watts, not 100 watts. The SGC-500 laughes at 34 watts
>reflected. (I swear that is true. I have heard it laughing to itself in
>the wee hours during a contest.) Seriously, that amp is not known as
>"The Brick" just because it looks like a brick.
>
>> Do you know how much power your amplifier delivers to the feedline? It
>> is likely that with a load VSWR of 1.7 it may have reduced output, it
>> is also possible that it is delivering even more than 500W to the low
>> Z load.
>
>An SWR of 1.7:1 is nothing to worry about unless you think the percentage
>power reflected is the same as the percentage voltage reflected. Don't feel

>bad, many others have made that same mistake. Most people are programmed not
>to think within a power/energy context and it gets them into trouble with
>such concepts as "reflected power just sloshes around from side-to-side" and
>"gobbledegook" applied to any attempt to track energy in a transmision line.
>
>The SGC-500 is speced to tolerate an SWR of 6:1. That means that it can
>dissipate more than half of its output power and keep on ticking. I
>don't recommend allowing that to happen but that spec is why I don't worry
>at all about reflected power unless the SWR is in excess of 2:1.

Lets leave that issue alone.

>
>If we keep arguing, one of us is bound to make a mistake that the other
>catches. I would guess that your above mistake bothers you a lot more
>than it bothers me. :-)

Well, I think we are agreed that you made a mistake in identifying a
mistake, if I am not mistaken!

No, back on track, I thought you might have measured forward and
reflected power at the amplifier output on the 30 ohm load, to deduce
the net forward power, then by allowing for the line loss, you would
have the net power at the feedpoint (most of which will be radiated in
some direction or another).

One could then calculate the performance of the feed configuration
compared to what would be delivered to an ideal nominal load with no
feed loss.

The whole excercise goes nowhere, because it seems that the 30 ohms
scenario is "hypothetical".

Owen
--

4009. Re: WorldRadio Magazine Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 22:16:35 UTC
From: Frank <frank599@nospamtelus.net>
Message-ID: <7xpjf.141728$yS6.37907@clgrps12>
Source record: 67256

>> Part 1 of my WorldRadio Oct. 2005 energy analysis article is
>> now available on my web page in Microsoft Word .doc format.
>
> For those of you not running Microsoft Word, the article is
> available in Adobe .pdf format. Please excuse the commercial
> at the bottom of the pages. (I'm too cheap to buy the full
> version of PDF4U.) :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp/energy.pdf

Thanks Cecil, very interesting. Will look forward to reading your other articles.

Regards,

Frank

4010. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 23:42:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <JNqjf.34601$6e1.20532@newssvr14.news.prodigy.com>
Source record: 67257

Owen Duffy wrote:
> Well, I think we are agreed that you made a mistake in identifying a
> mistake, if I am not mistaken!

Your original mistake was in making a posting that caused me to
misunderstand. :-) Your loss calculator gives 0.762 dB loss for
90 feet of Wireman #445 with an SWR of 12.7:1 on 7.15 MHz.

> The whole excercise goes nowhere, because it seems that the 30 ohms
> scenario is "hypothetical".

I knew it was thirty-something ohms so I said "30". It was
actually 38 ohms indicating an SWR at the source of 1.3:1.
That's acceptable losses for me. If I used an antenna tuner
to achieve a 1:1 match, it would probably be a wash.

Which is probably a good question. At what SWR should one
install an antenna tuner? My IC-706 seems perfectly
happy at 2:1.
--
73, Cecil http://www.qsl.net/w5dxp

4011. Re: vert dipole vs vert

Newsgroup: rec.radio.amateur.antenna
Date: 2005-11-30 23:51:48 UTC
From: ml <m@di.net>
Message-ID: <m-FCBAF3.18513930112005@news.verizon.net>
Source record: 67258

In article <uu0dwvimw.fsf@dt.prohosting.com>,
dt@dt.prohosting.com (David B. Thomas) wrote:

> >>>>> "ml" == ml <m@di.net> writes:
>
> ml> i was trying to figure loosly in real world case what the
> ml> difference would be (generally speaking) between say a
> ml> verticle all band commercial antenna on my roof (of my tall
> ml> apt building) i'd naturally install it's radial kit
>
> ml> vs
>
> ml> a equal all band (yeah i know it'd be tall) virticle dipole
> ml> (tweeked w/a tuner sgc at feedpoint
>
> The commercial vertical probably uses traps or other means to act like
> a quarter wave ground plane on all bands. This would be roughly
> equivalent, performance-wise, to a separate vertical dipole cut for
> each band.
>
> The issue with using the tuner is that a tall dipole used on a high
> frequency will throw a lot of energy up at high angles. On 15 and 10
> meters, you'd probably rather have a nice low angle pattern. Then
> again, when those bands are open, you can usually afford to have an
> inefficient antenna as propagation tends to be excellent.
>
> So, if you're looking to put up something fast and cheap, the dipole
> and tuner idea can certainly work. If you do that, try to keep the
> feed line perpendicular as long as you can before it drops down.
>
> David
> N5IZU

thank you very much david for your help, i was sorta thinking a
commercial one might radiate out more that way and was double checking
to see what i might have missed

appreciate the advice

tnx

4012. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 00:14:29 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <Ffrjf.2440$YT3.1667@newsread3.news.pas.earthlink.net>
Source record: 67259

Michael Coslo wrote:

> W. Watson wrote:
>
>> Cecil Moore wrote:
>>
>>> W. Watson wrote:
>>>
>>>> Cecil Moore wrote:
>>>>
>>>>> Why do you think that's a radio problem? :-)
>>>>
>>>>
>>>>
>>>>
>>>> When I turn the computer off, the radio station noise drops
>>>> dramatically. It doesn't matter if I use AC or DC. I can detect the
>>>> large noise change in my car from the garage.
>>>
>>>
>>>
>>>
>>> That sounds like a computer problem, not a radio problem.
>>> What am I missing?
>>
>>
>> Probably nothing. However, I'd be willing to bet that I wouldn't have
>> this problem if I were 100 miles closer to the radio station.
>
>
> Absolutely. If the station signal is relatively stronger than the
> computer noise, the computer's RFI will not be so much an issue. Right
> now, they are about the same strength. Moving the computer will probably
> help a lot.
>
> Just out of curiosity, what is the frequency of the station you are
> trying to recieve?
>
> And while we are at it, is the noise on the radio in just one spot,
> or is it on pretty much the whole band?
>
> - 73 de Mike KB3EIA -
>
810 AM, KGO. Good question about the width of noise. Let me check ...

I just took the radio out near the PC, and operated it on battery.

With the PC on, and moving in steps of 10KH from 700 to 900:
noise almost everywhere execpt at 830, which is about 3 miles from my house
and over a hill.

With the PC off, some noise everywhere, but 710 (station and somewhat
noisyg), 740 (station and somewhat noisy but not bad-- KCBS inSF, CA), 810
(clean), 840 (station and somewhat noisy). In other words things improved
quite a bit.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4013. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 00:20:41 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <tlrjf.2443$YT3.2280@newsread3.news.pas.earthlink.net>
Source record: 67260

K7JEB wrote:

> On Wed, 30 Nov 2005 13:26:37 GMT, "W. Watson"
> <wolf_tracks@invalid.com> wrote:
>
>
>>W. Watson wrote:
>>I'll continue to experiment, but so far not
>>so good. Comments?
>
>
> I would like to relate my experience. As you
> did, I carefully selected a new computer case
> and power supply from the stock at <redacted>,
> paying careful attention to the FCC logo on the
> power supply. After moving the mother board
> over and turning it on, it completely wiped
> out reception of the local 5kW station on 550 kHz.
> Fortunately, I had picked up a couple of surplus
> Corcom line filters (Model # 10ESK7)at a local
> hamfest three years earlier (it pays to collect
> junk). I spliced it into the computer power
> cord and it cured the problem completely.
>
> I don't have any experience with the Radio
> Shack line filter (Catalog # 15-1111), but it
> looks like it might do the job for you.
>
> 73, Jim, K7JEB
>
>
The RShk ferrite rectangles didn't help. Interesting about the Corcom
filters. I'm going down to a radio shop on Friday, HSC in Sacramento. Maybe
I can find something there.

I just checked Google with "Corcom line filters Model # 10ESK7" and found
some hits. Look like maybe they are $5.00.

Interesting finding about the width of the noise on a msg I just posted a
few minutes ago.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in remote places in the winter. What's the best
tool to carry with you? An axe.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4014. Re: Beginners Antenna Quest's (for listening only)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 00:56:32 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <4Trjf.3890$A23.1364@newsread2.news.pas.earthlink.net>
Source record: 67261

Hi "B.,"

I'll take a stab at responding to your questions. See below...

"Robert11" <rgsros@notme.com> wrote in message
news:4vOdnaymcczQzRbenZ2dnUVZ_sudnZ2d@comcast.com...
> Hello:
>
> Really new at this, and not really savy on antennas at all.
> Trying to learn, but sure is a complicated subject.
>
> Do sw listening only, just about anywhere below 30 MHz. No preferred
> direction. No transmitting.
>
> Presently have a "random length" horiz. wire running around the inside
> of my attic. Live in a typical New England colonial.
> Goes around the 4 walls, and is stapled every few feet to a wooden roof
> support joist. Probably about 40' x 25' x40' x 25' approximately.
>
> Not connected at the end, so I guess can't be considered a true loop.
>
> Questions:
>
> a. Does stapling to the wood degrade performance ? (wire is insulated)
>
No, the staples shouldn't hurt.

> b. Does the roof degrade performance ? How about when wet ?
>
A wet roof is somewhat lossy, so it certainly won't help.
But an attic antenna can still work for you, as it has for others.

> c. Would you expect considerably better performance if this exact
> same configuration was outdoors, at the same height ?
>
Yes, outdoors should be somewhat better. It might also allow a
better configuration.

> d. Would it be better if it were soldered back at the beginning, thus
> making a true horiz loop (with about a 10 foot vertical run to the
> receiver? Why ?
>
If you're talking about creating a circular monopole, no that would
not be a good idea. It would probably have much the same effect
as cutting off the far half of your wire.

> And I guess i should ask: For a single straight random length wire,
> is the most sensitivity perpendicular to the wire direction ?
> (assuming20 feet off theground, and perhaps 60 feet in length)
>
It's more complicated than that, and depends on frequency.
Don't worry about directionality unless you plan to build a
sophisticated directional antenna.

> Would you expect this to be much better than the indoor configuration
> I now have ? Why ?
>
It's not clear what "this" refers to.

> Is there a good pix on the web showing the lobes for this configuration;
> looked, but couldn't find a simple enough one for me to really understand.
>
Again, it's not clear what "this" is.

> Much thanks; appreciate the help,
> B.
>
>

4015. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 03:44:30 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <438e719e$0$47677$39cecf19@news.twtelecom.net>
Source record: 67262

Reg Edwards wrote:

> Gerry,
>
> The load is the antenna - about which the SWR meter knows absolutely
> nothing. All the the meter has to work with is the input impedance of
> the tuner or the transmission line.
>
> Line input Z = R+jX and to aggravate matters the meter discards all
> information about X.
> ----
> Reg.
>
>

The load that counts is what the transmitter sees. Which is what his instrument measures.

tom
K0TAR

4016. Re: Stacking Satellite VHF and UHF F9FT Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 04:00:03 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <438e7559$0$3761$39cecf19@news.twtelecom.net>
Source record: 67263

alain@alain.it wrote:

> Hello all,
>
> I actually own a 2x9 VHF and a 2x19 UHF by F9FT (Tonna).
> Since I need better performance (especially on VHF) for LEO operations
> I was thinking about stacking another antenna identical to the one I
> already have.
> The suggested stacking distance is 2.77 m. Since I am doing this
> upgrade I tought about stacking another UHF antenna too so that I would
> have an horizontal mast 3 meters long, with the VHF yagis at the ends
> and the UHF yagis in the middle.
>
> I have some questions:
> 1) Will the UHF yagis create troubles to the VHF since they are in the
> middle?

No.

> 2) What kind of real performance increase will I experience on VHF?

If the spacing is correct you will see roughly 3dB.

> 3) Can I couple the vertical elements with a coupler and the horizontal
> elements with another coupler and then apply a RCHP/LCHP coupling
> harness like I would normally do on a single antenna?

This doesn't match what you are speaking of in questions 1 and 2. You
cannot have the gain you desire and have the second set of antennas
differently polarized. That is a different configuration which requires
a feed that gives you circular polarization.

tom
K0TAR

> Thanks
>
> Alain De Carolis
> iz6byy ww3ww
>

4017. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 04:07:04 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <gusso11kkr7nlc7ad95itvde718e53flnc@4ax.com>
Source record: 67264

On Wed, 30 Nov 2005 23:42:33 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Well, I think we are agreed that you made a mistake in identifying a
>> mistake, if I am not mistaken!
>
>Your original mistake was in making a posting that caused me to
>misunderstand. :-) Your loss calculator gives 0.762 dB loss for
>90 feet of Wireman #445 with an SWR of 12.7:1 on 7.15 MHz.

Now, you're trying to trick me... did you mean Wireman 554?

It does show 0.76dB for 90' of 554 with a 30+j0 input Z at 7.15MHz.

The 0.9dB stated earlier was (as stated) for 552 which had a Zo closer
to your 380 ohms, whereas 554 is 360 ohms.

>
>> The whole excercise goes nowhere, because it seems that the 30 ohms
>> scenario is "hypothetical".
>
>I knew it was thirty-something ohms so I said "30". It was
>actually 38 ohms indicating an SWR at the source of 1.3:1.
>That's acceptable losses for me. If I used an antenna tuner
>to achieve a 1:1 match, it would probably be a wash.
>
>Which is probably a good question. At what SWR should one
>install an antenna tuner? My IC-706 seems perfectly
>happy at 2:1.

Given that some radios (including the IC706-IIG) reduce drive power at
high VSWR as a protection mechanism, you may want to install an ATU to
develop full power output. My recollection is that the power output of
the IC706-IIG is significantly down at VSWR=2, but it probably also
depends on the actual load impedance.

A likely scenario could be that the radio only develops 50W of output,
and only 40W makes it to the feedpoint (assuming 1dB feed loss). The
ATU might raise that to 100W of output, less tuner loss and feed loss
giving 75 to 80W at the feedpoint. Mere fraction of an S point... but
if you have a 100W transmitter, might as well use it, and besides, the
technical challenge of achieving that goal and measuring the
achievement might be part of what amateur radio is about.

Owen
--

4018. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 04:42:18 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <84vso1pf1ltnr7trci1f8iccoohvgm1h4e@4ax.com>
Source record: 67265

On Thu, 01 Dec 2005 00:20:41 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

>> I don't have any experience with the Radio
>> Shack line filter (Catalog # 15-1111), but it
>> looks like it might do the job for you.

> The RShk ferrite rectangles didn't help.
> Interesting about the Corcom filters. I'm going
> down to a radio shop on Friday, HSC in Sacramento.
> Maybe I can find something there.

Take a look at the 15-1111 on www.radioshack.com.
It is NOT a clamp-on ferrite choke, but rather
a filter like the Corcom. I just thought it might
be a bit more accessible. But if you can find a
10-amp Corcom, go for it! (Actually, a 3-amp model
should work). Anyway, your problem is definitely
solvable, and for relatively little $$$.

Jim, K7JEB

4019. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 04:46:23 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <438e802d@nntp.zianet.com>
Source record: 67266

Computers and computer components are regulated by the FCC.
They MUST NOT cause interferance to licenced radio services.
(like the radio stations you are trying to tune in.)
Make that clear to the vendor you got the power supply from!

KD5RPO

W. Watson wrote:
> Michael Coslo wrote:
>
>> W. Watson wrote:
>>
>>> I bought this antenna on a 30 day trial, and just got it about 12
>>> hours ago. So far I'm not at all impressed. I live about 150 miles
>>> from an AM station, at 810, in the SF/SJ Bay Area, which has a
>>> marginal signal, but usually listenable. Putting a new PSU in a PC
>>> about a month ago increased the noise in AM radios 70-100' from the
>>> PC to an almost unacceptable level. I had hoped the antenna would
>>> boost the signal enough to knock down the noise. There are times when
>>> I can get a good signal from the station, but certainly less
>>> frequently than before.
>>
>>
>>
>> Any rf noise put out by the computer ps is going to be picked up
>> by your antenna as well as the radio station you are trying to hear.
>> So a better antenna (if your new one is indeed better) wil just pick
>> up stronger power supply noise. It's moslty a null situation.
>>
>> What you need to do is get that power supply fixed or replaced
>>
>> - 73 de Mike KB3EIA -
>>
> I think the only solutions to the PSU problem is to buy a much better
> one. As I mention above, that's probably a losing proposition. I doubt
> after 6 weeks they would take it back. It might be worth a try though.
> Note my comment above to someone a few moments ago that this seems to be
> a household circuit dependent problem. Another PC in the same room works
> fine until I plug it into the socket that I first noticed the problem.
>
>
>

4020. using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 05:46:22 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <d76dnazFv_GvExPeRVn-ig@comcast.com>
Source record: 67267

All,

I have been trying to determine the operation of a loaded vertical on 75 meters and over a less then perfect ground. It is inconvenient to measure and change do its location.

After many attempts to solve this I have struck upon a solution to 'get close'. I have decided to build a model that works on 2 meters. This will be small enough to construct in the shack and to experiment with various 'grounds'.

What are the pit falls in doing this?

Thanks Dan kb0qil

4021. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 06:17:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cv4to1pcdbq4fuu79fh3oovtpe63jgsblm@4ax.com>
Source record: 67268

On Wed, 30 Nov 2005 21:46:22 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:
>After many attempts to solve this I have struck upon a solution to 'get close'.
>I have decided to build a model that works on 2 meters. This will be small
>enough to construct in the shack and to experiment with various 'grounds'.

Hi Dan,

One will be in the size of the components. If you use, say, 1/4 inch
tubing, then are you prepared to erect the full-scale with 10 inch
equivalents? Same goes for that coil load which is going to suffer
enormously with skin effect at 2M - unless you are going to build a
large coil at 75M.

Ground characteristics are not the same for 75M as they are at 2M.

Umm, let's see, the radiator and radials, the loading coil, ground -
have we left anything out?

73's
Richard Clark, KB7QHC

4022. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 06:46:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmm692$32r$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67269

> The load that counts is what the transmitter sees. Which is what
his
> instrument measures.
>
> tom
> K0TAR

==

I fully agree the transmitter load is what the transmitter sees.

But his meter does not measure it.

His meter simply tells him whether or not its resistance is 50 ohms.

Which is all he wants to know anyway.

Reg, G4FGQ

4023. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 07:06:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jh7to1t845743ak740rm0ld490frld3a46@4ax.com>
Source record: 67270

On Thu, 1 Dec 2005 06:46:58 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>But his meter does not measure it.

Jerry has a slotted line - described here in loving detail some time
ago. It and the meter so attached is perfectly capable of measuring
all the factors stated.

>Which is all he wants to know anyway.

which is an assumption (or a forced argument, take your pick) as he
has already reconciled any mis-understandings.

4024. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 07:52:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmma3nppn1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67271

"Richard Clark" wrote
>
> Jerry has a slotted line - described here in loving detail some time
> ago. It and the meter so attached is perfectly capable of measuring
> all the factors stated.
>
> >Which is all he wants to know anyway.
>
> which is an assumption (or a forced argument, take your pick) as he
> has already reconciled any mis-understandings.
==

Richard, please explain what purpose is served by the above message.
Am I missing something?

Reg.

4025. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 08:26:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11otcudpfmj6096@corp.supernews.com>
Source record: 67272

To make an exact scale model of an antenna, you not only have to scale all physical dimensions, but also the conductivity - the model's conductivity has to be freal/fmodel times the real conductivity. (Dielectric constant and permeability remain the same in the model as in the real antenna.) So in order to test the efficiency of various ground systems, you'll have to bury radial wires in model "dirt" which is several times more conductive than real dirt, while having the same dielectric constant as real dirt. (For example, if the real antenna is for 7 MHz, the model "dirt" will have to be about 20 times as conductive as real dirt but with the same dielectric constant.) Technically, you also have to do the same with the antenna conductor, but hopefully the conductor loss will be small enough that you won't have to worry about it. If the loading coil loss is significant, you'll have to construct a model coil with a scaled inductance but the same resistance (that is, the same Q) as the real one.

The pattern of a vertical antenna is heavily influenced by the conductivity of the ground extending several wavelengths from the antenna. So if you want to realistically evaluate the pattern, you'll need to extend your highly conductive model "dirt" to at least that distance.

Then there's the problem of measurement. Nearly everyone seriously overestimates his ability to accurately measure RF quantities such as impedance and field strength at HF. It's even more difficult at 2 meters. If you even want to attempt this, you should begin with models of several antennas of known characteristics, such as a quarter wavelength vertical and a resonant near-quarter wave vertical. See how closely your measurements agree with theoretical results. If and when you can get close agreement, then you have some chance on trusting measurements of other antennas. But even then it's not a certainty.

Those are some of the pitfalls.

Roy Lewallen, W7EL

dansawyeror wrote:
> All,
>
> I have been trying to determine the operation of a loaded vertical on 75
> meters and over a less then perfect ground. It is inconvenient to
> measure and change do its location.
>
> After many attempts to solve this I have struck upon a solution to 'get
> close'. I have decided to build a model that works on 2 meters. This
> will be small enough to construct in the shack and to experiment with

> various 'grounds'.
>
> What are the pit falls in doing this?
>
> Thanks Dan kb0qil

4026. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 09:04:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i2dto1944468v16voebh4iqdusrg7vqskq@4ax.com>
Source record: 67273

On Thu, 1 Dec 2005 07:52:23 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Richard, please explain what purpose is served by the above message.

Again? En Franï¿½aise? Auf Deutsch?

>Am I missing something?
>>On Sun, 27 Nov 2005 04:39:17 +0000 (UTC), "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com>
wrote:
>>>If the discussion should drift towards my personal character...

You have nothing left to say? ...seems bloody unlikely. Anyway, we
will hear it again soon enough. Just like the soft drink advert:
Grab your BAWLS and run and run and run!

[http://enx.org/img/bawlsarmy.jpg]

4027. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 09:53:08 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <8Kzjf.84363$QM5.38523@tornado.socal.rr.com>
Source record: 67274

BKR wrote:
> Computers and computer components are regulated by the FCC.
> They MUST NOT cause interferance to licenced radio services.
> (like the radio stations you are trying to tune in.)
> Make that clear to the vendor you got the power supply from!
>

Interesting thought but impractical. It could be the installation (e.g., grounding) vs. the supply itself. Event if the PSU itself, proving it would be a chore.

4028. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 13:20:29 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <9stto19tjms8ie9qbb6j825h18l9rdu39u@4ax.com>
Source record: 67275

I received the device and have started to use it. My only criticism so far is that the soft case is too tight to allow easy operation of the controls. I hope this will loosen up a bit with time.

It is amazing what you can learn about an antenna in such a short time!
John Ferrell W8CCW

On Fri, 04 Nov 2005 19:43:07 GMT, John Ferrell <johnferrell@sprintmail.com> wrote:

>I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF
>Analyzer.
>
John Ferrell W8CCW

4029. Re: SWR again.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 13:29:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <RUCjf.28475$Zv5.22275@newssvr25.news.prodigy.net>
Source record: 67076

Owen Duffy wrote:
> Now, you're trying to trick me... did you mean Wireman 554?

Yep, no trick, just tricky fingers, getting worse with age.

> The 0.9dB stated earlier was (as stated) for 552 which had a Zo closer
> to your 380 ohms, whereas 554 is 360 ohms.

I measured the 554 at 380 ohms. I could have been off by 5%.

> Given that some radios (including the IC706-IIG) reduce drive power at
> high VSWR as a protection mechanism, you may want to install an ATU to
> develop full power output. My recollection is that the power output of
> the IC706-IIG is significantly down at VSWR=2, but it probably also
> depends on the actual load impedance.

I have never witnessed my IC-706 folding back at any resistive
load between 25 ohms and 100 ohms. My IC-706 manual says, "When
the SWR is *higher* than approx. 2.0:1, the transceiver's power
drops to protect the final transistors."
--
73, Cecil http://www.qsl.net/w5dxp

4030. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 13:39:08 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <11otv7q7vq0a450@corp.supernews.com>
Source record: 67077

>>> You never mention how far away you are from "... Indianapolis 1070kc and
>>> Chicago 670kc & 1000kc." That'll have a LARGE bearing on the day/night
>>> reception question.
>>>
>>> Jonesy
>>> --
>>> Marvin L Jones | jonz | W3DHJ | linux
>>> Pueblo, Colorado | @ | Jonesy | OS/2 __
>>> 38.24N 104.55W | config.com | DM78rf | SK

I'm 70mi from Indy and 120mi from Chicago. Chicago 670kc is reasonable at
night 1070kc out of Indy at night is pretty bad.
Is 40ft at right angles to these signals better that 200ft parallel?

Terry wrote:

> One wavelength at a frequency of say 1070 kcs is a little less than 300
> metres (approx 1000 feet?).
> An antenna of either length will be very 'short' compared to the
> 'wavelengths' involved and will not be close to resonance.
> e.g. For quarter wave resonance (approx 75 metres or about 250 feet; for
> 1070 kcs and nearly 400 feet for say 670 kcs) required.
> Any 'too short' antenna will be will be badly mismatched (energy loss!) to
> the impedance of the co-ax.
> This suggest that some kind of untuned impedance matching transformer,
> suitable for the frequencies in question, might be used to transfer as
> much energy as possible to the co-ax transmission line?
> Seen this done with short 'whip' antenna operating at Broadcast
> Band/Medium Wave frequencies.
> Transmission line should also be matched at the receiver end?
> 100 feet of coax at those frequencies should have low loss?

any guidance on how I accomplish above impedance matching

thanks in advance
jeff

4031. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 13:41:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <N3Djf.28477$Zv5.27112@newssvr25.news.prodigy.net>
Source record: 67078

John Ferrell wrote:
> It is amazing what you can learn about an antenna in such a short
> time!

My MFJ-259B is a really handy little gadget for learning.
So is EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

4032. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 14:51:07 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <438F0DDB.1080407@comcast.net>
Source record: 67079

Roy,

Thank you. My first objective is hopefully relatively simple. I would like to determine resonance and measure Z. In order to do that I will use an HP 8405A and directional couplers. Your suggestion is to practice that on known antennas. That makes sense. Given that I have relatively good generators and can measure forward and reflected signals at the antenna, is that sufficient to measure model impedance?

Dan

Roy Lewallen wrote:
> To make an exact scale model of an antenna, you not only have to scale
> all physical dimensions, but also the conductivity - the model's
> conductivity has to be freal/fmodel times the real conductivity.
> (Dielectric constant and permeability remain the same in the model as in
> the real antenna.) So in order to test the efficiency of various ground
> systems, you'll have to bury radial wires in model "dirt" which is
> several times more conductive than real dirt, while having the same
> dielectric constant as real dirt. (For example, if the real antenna is
> for 7 MHz, the model "dirt" will have to be about 20 times as conductive
> as real dirt but with the same dielectric constant.) Technically, you
> also have to do the same with the antenna conductor, but hopefully the
> conductor loss will be small enough that you won't have to worry about
> it. If the loading coil loss is significant, you'll have to construct a
> model coil with a scaled inductance but the same resistance (that is,
> the same Q) as the real one.
>
> The pattern of a vertical antenna is heavily influenced by the
> conductivity of the ground extending several wavelengths from the
> antenna. So if you want to realistically evaluate the pattern, you'll
> need to extend your highly conductive model "dirt" to at least that
> distance.
>
> Then there's the problem of measurement. Nearly everyone seriously
> overestimates his ability to accurately measure RF quantities such as
> impedance and field strength at HF. It's even more difficult at 2
> meters. If you even want to attempt this, you should begin with models
> of several antennas of known characteristics, such as a quarter
> wavelength vertical and a resonant near-quarter wave vertical. See how
> closely your measurements agree with theoretical results. If and when
> you can get close agreement, then you have some chance on trusting
> measurements of other antennas. But even then it's not a certainty.
>
> Those are some of the pitfalls.

>
> Roy Lewallen, W7EL
>
> dansawyeror wrote:
>
>> All,
>>
>> I have been trying to determine the operation of a loaded vertical on
>> 75 meters and over a less then perfect ground. It is inconvenient to
>> measure and change do its location.
>>
>> After many attempts to solve this I have struck upon a solution to
>> 'get close'. I have decided to build a model that works on 2 meters.
>> This will be small enough to construct in the shack and to experiment
>> with various 'grounds'.
>>
>> What are the pit falls in doing this?
>>
>> Thanks Dan kb0qil

4033. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 15:00:44 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <438F101C.8070503@comcast.net>
Source record: 67080

Thank you. I am not planning to scale the model, rather I am planning to learn how to measure. My first goal is to build an antenna with a relatively low radiation resistance and measure it.

Where can I learn about the difference in ground characteristics between 75m and 2m? William Orr wrote that a cross mesh under an HF vertical approximated a perfect ground. It should be relatively easy to do the same under a 2m model. I assume that metal reference ground would react the same.

Thanks - Dan

Richard Clark wrote:
> On Wed, 30 Nov 2005 21:46:22 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>>After many attempts to solve this I have struck upon a solution to 'get close'.
>>I have decided to build a model that works on 2 meters. This will be small
>>enough to construct in the shack and to experiment with various 'grounds'.
>
>
> Hi Dan,
>
> One will be in the size of the components. If you use, say, 1/4 inch
> tubing, then are you prepared to erect the full-scale with 10 inch
> equivalents? Same goes for that coil load which is going to suffer
> enormously with skin effect at 2M - unless you are going to build a
> large coil at 75M.
>
> Ground characteristics are not the same for 75M as they are at 2M.
>
> Umm, let's see, the radiator and radials, the loading coil, ground -
> have we left anything out?
>
> 73's
> Richard Clark, KB7QHC

4034. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 15:19:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ewEjf.34705$6e1.4655@newssvr14.news.prodigy.com>
Source record: 67081

dansawyeror wrote:
> William Orr wrote that a cross mesh under an HF vertical
> approximated a perfect ground.

That's only where the mesh is installed. Ground
reflections and attenuation extend beyond the
mesh area. How high above the mesh are you going
to position the 2m antenna?
--
73, Cecil, http://www.qsl.net/w5dxp

4035. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 16:02:56 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <Q8Fjf.46403$2k6.12133@tornado.socal.rr.com>
Source record: 67082

Cecil Moore wrote:
> dansawyeror wrote:
>
>> William Orr wrote that a cross mesh under an HF vertical approximated
>> a perfect ground.
>
>

I've put up complete antenna systems that seem to approximate a perfect
ground .. some of them commercial products :)

4036. Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 16:23:30 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1133454210.047291.209170@g44g2000cwa.googlegroups.com>
Source record: 67083

I'm mulling the design/homebrewing of a hexagonal 20/17/15/12/10M wire beam a la the Traffie Hexbeam. The problem with just about all projects like this is the number of up/down iterations required to tweak the tuning of the things. Put it up, calculate the required changes in element lengths, take it down, make the adjustments, put it back up to check it again, pull it down and go thru the whole cycle ad nauseam. Pain in the tush.

I've seen suggestions here and there about simply aiming a beam vertically upward and doing all the tuning at ground level instead. Which would save an awful lot of time and effort. If it works. Does anybody around here have any experience with this method and if so how succesful was it?

Thanks,

Brian w3rv

4037. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 16:42:28 UTC
From: "Harold E. Johnson" <w4zcb@mchsi.com>
Message-ID: <UJFjf.590979$_o.422884@attbi_s71>
Source record: 67084

> I've seen suggestions here and there about simply aiming a beam
> vertically upward and doing all the tuning at ground level instead.
> Which would save an awful lot of time and effort. If it works. Does
> anybody around here have any experience with this method and if so how
> succesful was it?
>
> Thanks,
>
> Brian w3rv

Works fine with a yagi, I've always just lashed a 2 x 4 to the tower and "hung" the antenna off the side of the tower pointed straight up. There's a null off the bottom of the yagi, and it ignores the tower as well. Not sure of the topology of your "hexbeam" thingie, but if you can get it to ignore things around it, the reflector, if it's doing any reflecting at all, will remove the ground from the tuning process.

W4ZCB
>

4038. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 17:09:50 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <s1buo15inf0gth1p0ici576co32hm7khoc@4ax.com>
Source record: 67085

On 1 Dec 2005 08:23:30 -0800, "Brian Kelly" <kelly@dvol.com> wrote:

>I'm mulling the design/homebrewing of a hexagonal 20/17/15/12/10M wire
>beam a la the Traffie Hexbeam. The problem with just about all projects
>like this is the number of up/down iterations required to tweak the
>tuning of the things. Put it up, calculate the required changes in
>element lengths, take it down, make the adjustments, put it back up to
>check it again, pull it down and go thru the whole cycle ad nauseam.
>Pain in the tush.
>
>I've seen suggestions here and there about simply aiming a beam
>vertically upward and doing all the tuning at ground level instead.
>Which would save an awful lot of time and effort. If it works. Does
>anybody around here have any experience with this method and if so how
>succesful was it?
>
>Thanks,
>
>Brian w3rv

It will get you close. However it really depends on the front to
back of the antenna. Dipoles do poorly this way, 2 element beams
slightly better. I've done 3 element 6m beams with the reflector only
4ft off the ground pointing up with excellent success. Seems the
breakpoint is some where around better than 10or 12 DB F/B ratio.

You do need distance from the ground or it acts like a reflector
and messes with your measurments.

Allison

4039. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 17:11:04 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438f1f33@fidonet.org>
Source record: 67086

"Phil Wheeler" bravely wrote to "All" (01 Dec 05 09:53:08)
--- on the heady topic of "Re: C. Crane's Twin Ferrite Antenna"

PW> From: Phil Wheeler <w6tuh-ng7@yahoo.com>
PW> Xref: core-easynews rec.radio.amateur.antenna:220688

PW> BKR wrote:
> Computers and computer components are regulated by the FCC.
> They MUST NOT cause interferance to licenced radio services.
> (like the radio stations you are trying to tune in.)
> Make that clear to the vendor you got the power supply from!

PW> Interesting thought but impractical. It could be the installation
PW> (e.g., grounding) vs. the supply itself. Event if the PSU itself,
PW> proving it would be a chore.

Especially since most of the off-shore stuff may have all the right
stickers but be complete fakes of the real thing.

A*s*i*m*o*v

... We're young, rich, and full of sugar, what do we do?

4040. Re: 30/20 vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 17:16:23 UTC
From: nm5k@wt.net
Message-ID: <1133457383.520644.9950@g44g2000cwa.googlegroups.com>
Source record: 67087

For 20m I am planning a quarter wavelength vertical radiator with 4
eighth wavelength radials, mounted 12 feet high.

1/8 wl radials, with an elevated ground plane won't work
worth a hoot. They won't be resonant.

If I add another 4 radials cut an eight wavelength for 30m, will it be
easier to operate on 30?

Not really, unless you have a way to tune the radiator.
All elevated radials should be 1/4 wave long, unless a
case of using longer, such as 3/4 wave. 1/8 radials are
ok ground mount, but not elevated. Elevated radials must
be tuned and resonant to really work.
MK

4041. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 17:19:04 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <cgGjf.28513$Zv5.7890@newssvr25.news.prodigy.net>
Source record: 67088

"Brian Kelly" <kelly@dvol.com> wrote in message
news:1133454210.047291.209170@g44g2000cwa.googlegroups.com...
> I'm mulling the design/homebrewing of a hexagonal 20/17/15/12/10M wire
> beam a la the Traffie Hexbeam. The problem with just about all projects
> like this is the number of up/down iterations required to tweak the
> tuning of the things. Put it up, calculate the required changes in
> element lengths, take it down, make the adjustments, put it back up to
> check it again, pull it down and go thru the whole cycle ad nauseam.
> Pain in the tush.
>
> I've seen suggestions here and there about simply aiming a beam
> vertically upward and doing all the tuning at ground level instead.
> Which would save an awful lot of time and effort. If it works. Does
> anybody around here have any experience with this method and if so how
> succesful was it?
>
> Thanks,
>
> Brian w3rv
>

Another local Ham and I have built two monoband 20 meter versions of the
HexBeam
utilizing info from W1GQLs hexbeam website (one with PVC spreaders and one
with fiberglass rod spreaders). Neither had to be adjusted at all after the
original wire length was cut. Mine has usable tuning at just above ground
level and it's expected to get only better with height, as the other one
did. Granted, we didn't have the other band elements to fuss with. If you
can get element lengths and vertical separation distances from someone with
a working multibander chances are you won't need to do any adjusting on
those, either. W1GQL has suggested, with the finite lifespan of such
antennas and the current lowpoint of the sunspot cycle, that there is no
overwhelming need for 10, 12, and 15 meter elements for at least the next
couple of years. You might try building your antenna as a monoband 20 meter,
but construct the antenna with sufficient spreader tension and bow depth
that you can later add additional bands. The foregoing advice is free and
not necessarily valuable, but is given with friendly intent.(G) My own
fiberglass HexBeam has a 30" bow depth and I may yet attempt to add a band
or two later. Good luck with yours however you choose to build it.

Harold
KD5SAK

4042. Re: 30/20 vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 18:02:39 UTC
From: nm5k@wt.net
Message-ID: <1133457598.727325.128180@g47g2000cwa.googlegroups.com>
Source record: 67089

I'm wondering
if a short vertical with long elevated radials would result
in an "off-center-fed" vertical.

Not the way I see it, just as long as all the radials are
equal length. The reason I don't see it, is the radiation of the
radials should pretty much cancel if all are equal. Not
quite the same as the single radial in that situation.
If you had one radial, maybe so...
MK

4043. Free Catalog: Coax Cable, Connectors & Adapters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 18:08:27 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <r_Gjf.9958$Wu.9674@fed1read05>
Source record: 67090

For your free copy of our new catalog,

please email sales@AAARFProducts.com

or see www.aaarfproducts.com

or call 949 481 3154 (San Clemente, CA)

No minimum order.

No handling charges.

4044. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 18:13:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gleuo1h9vd32dhn7kah4uqs9kssaphoica@4ax.com>
Source record: 67091

On Thu, 01 Dec 2005 07:00:44 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Where can I learn about the difference in ground characteristics between 75m and 2m?

Hi Dan,

Reggie's method of measuring earth conductivity in a coaxial tube
would work in these very short wavelengths (at HF it would be a joke
due to the necessity to survey to many meters of depth beneath the
system and out beyond it).

Aside from that, you would have to scrounge the web for references;
and they are actually quite numerous, but exceedingly tedious to sift
through. Basically, perform a search on soil characteristics for
ground penetrating RADAR. There is a lot of work that starts in VHF.
From this you might anticipate most references are very military in
nature. The problem of the sift is that many of these studies are
vertical niche research and may discard the paths of your interest.

Another method would be to reverse engineer it and find the soil
characteristics by discovery. That is model your construction, and
measure it both and compare results. The difference would probably be
the soil characteristic if you pay close attention to the details of
modeling and construction both. [By modeling, I mean in software.]

73's
Richard Clark, KB7QHC

4045. Re: 30/20 vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 19:01:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <MLHjf.28519$Zv5.14973@newssvr25.news.prodigy.net>
Source record: 67092

nm5k@wt.net wrote:

> I'm wondering
> if a short vertical with long elevated radials would result
> in an "off-center-fed" vertical.
>
> Not the way I see it, just as long as all the radials are
> equal length. The reason I don't see it, is the radiation of the
> radials should pretty much cancel if all are equal. Not
> quite the same as the single radial in that situation.
> If you had one radial, maybe so...

I just ran one on EZNEC. The feedpoint is at 23 feet and there
are four 23 foot radials drooping at 45 degrees. (I already
had this one modeled.)

With a 23 foot vertical section, the feedpoint resistance is
56 ohms on 10.2 MHz. 234/10.2 = 23 feet

With a 12 foot vertical section, the feedpoint resistance is
84 ohms on 16.4 MHz. 234/16.4 = 14.2 feet, 2.2' longer than 12'.

It looks like (with slanted radials that radiate) there is an
"off-center-feed" effect, i.e. longer radials require a shortened
vertical section.
--
73, Cecil, http://www.qsl.net/w5dxp

4046. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 19:27:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11oujkns4rgt0ca@corp.supernews.com>
Source record: 67093

dansawyeror wrote:
> Roy,
>
> Thank you. My first objective is hopefully relatively simple. I would
> like to determine resonance and measure Z. In order to do that I will
> use an HP 8405A and directional couplers. Your suggestion is to practice
> that on known antennas. That makes sense. Given that I have relatively
> good generators and can measure forward and reflected signals at the
> antenna, is that sufficient to measure model impedance?

Provided that you can measure phase as well as amplitude, both with adequate accuracy, and know how to establish a reference plane by either calibration or calculation. It's not simple.

Roy Lewallen, W7EL

4047. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 19:35:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ouk434sa7itcd@corp.supernews.com>
Source record: 67094

dansawyeror wrote:
> Where can I learn about the difference in ground characteristics between
> 75m and 2m? . . .

If you want to model 75m ground, you need to begin with what you assume the ground characteristics to be at 75m. Let's say you have average ground, with conductivity of 5 mS/m and dielectric constant of 13. For your model, you'll need something with conductivity of 5 * 146/3.8 ~ 192 mS/m conductivity and dielectric constant of 13. I have no idea where you might find such a material.

>William Orr wrote that a cross mesh under an HF vertical
> approximated a perfect ground. It should be relatively easy to do the
> same under a 2m model. I assume that metal reference ground would react
> the same.

No problem approximating a perfect ground. If you have a perfect ground under your 75 meter antenna, it won't be hard to make a decent model of the perfect ground. A piece of screen or hardware cloth would do fine. The trick will be making that perfect ground under your 75 meter antenna. And unless you do, the model won't behave the same as the real antenna.

Roy Lewallen, W7EL

4048. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 20:18:33 UTC
From: richardharrison@webtv.net
Message-ID: <26586-438F5A99-1152@storefull-3253.bay.webtv.net>
Source record: 67095

Roy Lewallen wrote:
"You can find the explanation for why this is in any electromagnetic text."

I found it in Terman.

As we all know, we place correctly polarized dipoles, for example, parallel to the wavefront for maximum response. Terman confirms the electric field in this instance induces no energy in the antenna. It all comes from the magnetic field.

If antenna current flows, no matter where it comes from, loss resistance causes a voltge drop. That`s why the wire needs to be perfect. The electric field produces no voltage in the antenna because the wavefront has the same voltage across its entire surface. That`s because it all left the same point at the same time. So, a wire parallel to the front has no difference of potential induced by the wavefront`s electric field. It all must come from the mgnetic field.

On page 2 of his 1955 edition, Terman says:
"The strength of the wave measured in terms of microvolts per meter of stress in space is also exactly the same voltage that the MAGNETIC FLUX (my emphasis) of the wave induces in a conductor 1 m long when sweeping across this conductor with the velocity of light."

From the above, it is seen that the electric field is not effective in inducing current in a receiving antenna parallel to a wavefront. All the energy intercepted by the antenna is induced by the magnetic field.

Best regards, Richard Harrison, KB5WZI

4049. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 21:26:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hjnuo1d8kccg2j4ehnmgonaogjggf3d6c1@4ax.com>
Source record: 67096

On Thu, 1 Dec 2005 14:18:33 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

Hi Richard,

>If antenna current flows, no matter where it comes from, loss resistance
>causes a voltge drop. That`s why the wire needs to be perfect.

For one, there is no such thing as a perfectly conducting antenna, except where one might truncate precision and measure at D.C. Even for a perfect conductor (absolutely no Ohmic loss), it still exhibits radiative loss, and any current through this loss must exhibit a voltage (the same one described by Terman). Perhaps you intended this, but you fail to offer Rr, a significant component.

>The electric field produces no voltage in the antenna because the wavefront
>has the same voltage across its entire surface. That`s because it all
>left the same point at the same time.

An electric Dipole exhibits a loci of points in space that has the same voltage, broadside to the radiator. And this loci is orthogonal. All paired points in 3-space (in the same polarization to the dipole) exhibit a potential difference. True, at a great distance it may be meager, but the common evidence of reception proves it is adequate for detection and measurement. Your discussion above is for the insignificance of phase difference at a distance.

>From the above, it is seen that the electric field is not effective in
>inducing current in a receiving antenna parallel to a wavefront. All the
>energy intercepted by the antenna is induced by the magnetic field.

From your copy of Bailey, review the text, and reconcile his remarks.

For others following the original poster's query for a source of discussion about the physics of reception:

I would suggest reading the chapter "The Theory of Signal Interception" (all may be advised this chapter runs to 63 pages), specifically the first two sections "How the Antenna Intercepts a Signal," and "The Current Treatment" from which I will lightly quote to amplify the comments above:

"This electrical resistance is not only due to electrical conductivity of the metal of which the rod is composed but also due to other factors.... the predominant resistance is, strangely enough, largely due to the fact that no electrons can move on the antenna surface without also sending radio energy back out into

space."

By the decimation of the problem of treating a large surface as many small ones (segmenting the antenna) Bailey offers:

"At each point along this rod we can arbitrarily say that a small but finite voltage acts."

Notice the "acts" which is an initiator or causative agent, not a passive result. This is not to say such action is in isolation, Bailey clearly observes that E/H are inseparable and he offers that the wave bootstraps the antenna's response (the point of his emphasis on immediacy from Roy's Chapter 4 quote).

73's
Richard Clark, KB7QHC

4050. OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 22:02:04 UTC
From: mcalhoun@ksu.edu
Message-ID: <dmnrss$lhp@unix1.cc.ksu.edu>
Source record: 67098
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Note the multi-group posting.

For 18 years, I've been reading newgroups on Unix (or Linux) machines,
first using "rn" (readnews) and later "nn" (netnews), but now my ISP
(Kansas State University) has notified me that, because their news server
is getting old and because I'm one of only a very few users, they are
dropping the service as of 28 December.

So I need to find an alternative way of getting my daily "fix";
I sure hope someone has suggestion(s)!
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4051. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 22:07:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11out0c5oh6ghd6@corp.supernews.com>
Source record: 67097

It looks like time to remind readers that charge isn't the same as electrons. On a wire, charge moves at nearly the speed of light, while electrons only go a few miles per hour. Most of the relevant theory actually deals with the interaction of fields and charge, not fields and electrons.

Roy Lewallen, W7EL

4052. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 22:29:24 UTC
From: clifto <clifto@clifto.com>
Message-ID: <43a463-5ld.ln1@remote.clifto.com>
Source record: 67099
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

mcalhoun@ksu.edu wrote:
> So I need to find an alternative way of getting my daily "fix";
> I sure hope someone has suggestion(s)!

You can buy a super duper feed from Supernews. For less money, you can
get a good feed (text only IIRC) from news.individual.net.

Guess we're not in Kansas any more.

--
If John McCain gets the 2008 Republican Presidential nomination,
my vote for President will be a write-in for Jiang Zemin.

4053. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 22:35:27 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmnu0m$l3p$1@news.service.uci.edu>
Source record: 67101

Roy Lewallen wrote:

> It looks like time to remind readers that charge isn't the same as
> electrons. On a wire, charge moves at nearly the speed of light, while
> electrons only go a few miles per hour. Most of the relevant theory
> actually deals with the interaction of fields and charge, not fields and
> electrons.
>
> Roy Lewallen, W7EL

Good point. Charge can be holes, or electrons, or even ions. It is the fields which move at the speed of light. Charge tends to have to hang around with the charge carriers. But once a field arrives someplace, it will immediately influence the motion of charges that happen to be hanging around there locally.

ac6xg

4054. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 22:36:05 UTC
From: Bill <exray@coqui.net>
Message-ID: <5ff07$438f7ad6$4232bd6c$7468@COQUI.NET>
Source record: 67100
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

clifto wrote:

> mcalhoun@ksu.edu wrote:
>
>>So I need to find an alternative way of getting my daily "fix";
>>I sure hope someone has suggestion(s)!
>
>
> You can buy a super duper feed from Supernews. For less money, you can
> get a good feed (text only IIRC) from news.individual.net.
>
> Guess we're not in Kansas any more.
>
add teranews.com to the list

4055. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 22:40:48 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <QZKjf.592291$_o.114273@attbi_s71>
Source record: 67102
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Check out https://www.altopia.com/

"Bill" <exray@coqui.net> wrote in message
news:5ff07$438f7ad6$4232bd6c$7468@COQUI.NET...
> clifto wrote:
>
>> mcalhoun@ksu.edu wrote:
>>
>>>So I need to find an alternative way of getting my daily "fix";
>>>I sure hope someone has suggestion(s)!
>>
>>
>> You can buy a super duper feed from Supernews. For less money, you can
>> get a good feed (text only IIRC) from news.individual.net.
>>
>> Guess we're not in Kansas any more.
>>
> add teranews.com to the list

4056. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 22:59:56 UTC
From: Chuck Harris <cf-NO-SPAM-harris@erols.com>
Message-ID: <vsCdnZ28ZP3xHRLeRVn-pw@rcn.net>
Source record: 67103
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

mcalhoun@ksu.edu wrote:
> Note the multi-group posting.
>
> For 18 years, I've been reading newgroups on Unix (or Linux) machines,
> first using "rn" (readnews) and later "nn" (netnews), but now my ISP
> (Kansas State University) has notified me that, because their news server
> is getting old and because I'm one of only a very few users, they are
> dropping the service as of 28 December.
>
> So I need to find an alternative way of getting my daily "fix";
> I sure hope someone has suggestion(s)!

My ISP still provides usenet, but you can always go to google groups,
and read and post for free. There are other free news providers that
have web portals as well.

-Chuck

4057. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 23:24:52 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <fg1vo1dtt2stqurte7cjupqer73pbk15mi@4ax.com>
Source record: 67104

I agree. I took the ARRL course using EZNEC and cannot praise it
enough!
On Thu, 01 Dec 2005 13:41:01 GMT, Cecil Moore <mycall@arrl.net> wrote:

>John Ferrell wrote:
>> It is amazing what you can learn about an antenna in such a short
>> time!
>
>My MFJ-259B is a really handy little gadget for learning.
>So is EZNEC.
John Ferrell W8CCW

4058. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 23:32:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <eKLjf.25163$dO2.13269@newssvr29.news.prodigy.net>
Source record: 67105
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

mcalhoun@ksu.edu wrote:
> So I need to find an alternative way of getting my daily "fix";
> I sure hope someone has suggestion(s)!

Who's your ISP? SBCGlobal.net supplies a news-server.
Google's newsgroup server is now close to real-time.
Or try: > http://www.usenet-access.com/contactus.asp
--
73, Cecil http://www.qsl.net/w5dxp

4059. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-01 23:42:46 UTC
From: kludge@panix.com
Message-ID: <dmo1pm$ge6$1@panix2.panix.com>
Source record: 67106
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

In article <dmnrss$lhp@unix1.cc.ksu.edu>, <mcalhoun@ksu.edu> wrote:
>For 18 years, I've been reading newgroups on Unix (or Linux) machines,
>first using "rn" (readnews) and later "nn" (netnews), but now my ISP
>(Kansas State University) has notified me that, because their news server
>is getting old and because I'm one of only a very few users, they are
>dropping the service as of 28 December.

If you like using the old rn, nn, and tin servers, get a shell account
from Panix. You can telnet or ssh in from anywhere in the world, type
"rn" at the shell prompt and go. And it's ten bucks a month and the
tech support is better than you've ever had from Computer Services at KSU.
--scott
--
"C'est un Nagra. C'est suisse, et tres, tres precis."

4060. Re: Mobile 2m/70cm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 01:05:59 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <c47vo1d8ogvhar1duiumrp22dmf5on0k79@4ax.com>
Source record: 67107

On Wed, 30 Nov 2005 11:24:47 -0800, "Rod Maupin" <gridman@ywave.com>
wrote:

>I recently bought a Larsen 2m/70cm NMO mag-mount mobile antenna for my
>truck. It's the first time I've ever owned a mobile antenna because I don't
>do that much driving (I work from home). I don't have a mobile radio in the
>truck, I just have an HT.
>
>What I wanted to do was hook up my Icom W32A to the mobile antenna when I'm
>in the truck. So, I put the mag-mount on the middle of the pickup roof and
>started driving. I compared the mobile Larsen antenna to my Diamond RH77CA
>HT antenna. What I noticed is that with the Diamond antenna on the HT
>inside the truck, it consistently pulls in more signal (on both bands) than
>the Larsen mobile outside the truck. The Diamond antenna is of course an HT
>antenna, so it's optimized for HT use.
>
>Is this normal behavior for a mobile antenna hooked up to an HT? If it's
>not normal, then this is not that great of a mobile antenna.
>
>Rod KI7CQ
>

When I bought a similar antenna, a Larsen 2m/70cm mag mount (mine is
about 20 years old, but may be the same exact model as yours) anyhow,
I had to cut the vertical element with a file to get the SWR down,
using a Bird wattmeter. The antenna, as it came from the factory,
needed quite a bit of diddling before being resonant.

Have you checked SWR, and/or adjusted the vertical length?

Bob
k5qwg

4061. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 01:59:48 UTC
From: KC4IH <"ken area-net.com">
Message-ID: <NtmdncgspLgVNxLeRVn-qg@adelphia.com>
Source record: 67108

I was terribly disappointed in the MFJ case and sold it on Ebay then bought
an aluminum case off Ebay that works perfectly and has room for several
adapters and a cable or two as well as the instruction manual for the 269.
It is a great instrument but I wish they would fix the UHF switching
problem. Looks like a latching relay would solve the problem real easy, go
figure. Anyway here is a URL to one of the auctions:
http://cgi.ebay.com/NEW-ALUMINUM-HARD-SIDE-PRO-DELUXE-DIGITAL-CAMERA-CASE_W0QQitemZ7568420
345QQcategoryZ50505QQrdZ1QQcmdZViewItem

I also bought a laptop case from the same company and both were outstanding
quality. Good heavy side walls and nice interiors. Take a good look at the
interior dividers on the above auction. The 269 fits exactly.
Good luck and 73,
Ken

"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:9stto19tjms8ie9qbb6j825h18l9rdu39u@4ax.com...
>I received the device and have started to use it. My only criticism so
> far is that the soft case is too tight to allow easy operation of the
> controls. I hope this will loosen up a bit with time.
>
> It is amazing what you can learn about an antenna in such a short
> time!
> John Ferrell W8CCW
>
> On Fri, 04 Nov 2005 19:43:07 GMT, John Ferrell
> <johnferrell@sprintmail.com> wrote:
>
>>I am considering ordering the MFJ-269 HF/VHF/UHF Antenna/SWR/RF
>>Analyzer.
>>
> John Ferrell W8CCW

4062. Re: using a model

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 02:29:43 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <438FB197.10600@comcast.net>
Source record: 67109

My intent is to vary it between about 1/4 inch up to 4 inchs.

Cecil Moore wrote:
> dansawyeror wrote:
>
>> William Orr wrote that a cross mesh under an HF vertical approximated
>> a perfect ground.
>
>
> That's only where the mesh is installed. Ground
> reflections and attenuation extend beyond the
> mesh area. How high above the mesh are you going
> to position the 2m antenna?

4063. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 03:39:58 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <_jPjf.8429$wi2.4833@bignews1.bellsouth.net>
Source record: 67110
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Bill wrote:
> clifto wrote:
>
>> mcalhoun@ksu.edu wrote:
>>
>>> So I need to find an alternative way of getting my daily "fix";
>>> I sure hope someone has suggestion(s)!
>>
>>
>>
>> You can buy a super duper feed from Supernews. For less money, you can
>> get a good feed (text only IIRC) from news.individual.net.
>>
>> Guess we're not in Kansas any more.
>>
> add teranews.com to the list
teranews.com is ok, free (nominal one time setup charge)
but they go up and down like a yo-yo.

4064. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 04:13:32 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11oviiu6q6u1m31@corp.supernews.com>
Source record: 67111

Hi Roy,

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11ofpe5kh28mk09@corp.supernews.com...
> One of the reasons this is the only choice we have is that in times past,
> there were stores which did pay the employees enough to get people who
> understood the products. People would go in, get their questions answered,
> then go to the Wal-Marts and Radio Shacks to buy the item because it was
> cheaper there.

What, have you been talking to the guys at HRO again at how people will come in and get technical advice for an hour and then go home and order on-line again or something? :-)

Seriously, your point is well taken, although I'd suggest that all the product reviews you get from, e.g., Amazon.Com can actually be more useful than the information you'd get from a salesperson. There's no inherent bias (to want to sell you something), and you get to see comments from people with a wide range of background. (It's always kinda amusing to see people trash, say, some classical technical book when the real problem is that they're just not well enough educated yet to appreciate what they're reading!)

4065. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 04:19:59 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11oviv2b6n4i90@corp.supernews.com>
Source record: 67112

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:9b1io1hcv07plphfbppfdg5bc4nl4et4lp@4ax.com...
> The social cost to America from Wal*Mart's business practices is on
> the order of $1.5 Billion.

I have a suspicion that, depending on whether you're pro- or anti-Wal*Mart, that number can easily more around by an order of magnitude...

Presumably that $1.5B translates into higher taxes, right? The average person would rather pay $1 at WallyWorld and $0.25 in taxes rather than $1.10 at a different store... it's just human nature. And even if you convince the average person that their taxes are higher due to WallyWorld being around, most of them would just say to cut tax rates and hence reduce spending on whatever their favorite 'target' is -- the military for more liberally minded individuals, social programs for conservatives, etc.

> When you look at if from the Chinese
> perspective, they are getting gang-banged too. The presentation
> showed how Wal*Mart paid workers 6¢ apiece for an item selling at $12.

That strikes me as a red herring. For many products, there's very little relationship between the selling price and any one constituent cost involved in producing it, such as labor. (How much were the labor costs of the salesguy who sold you a one karat diamond ring for, say, $10,000, after all?)

4066. Re: Radio Shack and my education

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 04:23:14 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11ovj54np9jc9c1@corp.supernews.com>
Source record: 67113

"Korbin Dallas" <korbindallas@null.org> wrote in message
news:pan.2005.11.27.21.30.33.956522@null.org...
> I have never understood this Bose thing, the speakers are some of the
> worst ones on the market and they are flying out the doors all day long.

1) Many people like the sound of Bose. Regardless of how distorted that sound might be, the fact that people like it is most important. (And purposely distorting sound is very much the premise of many effects boxes used to produce music, after all!)
2) Bose does a good job of marketing their product as something that appeals to the 'hip' crowd, just like Apple has done with the iPod.

> Its all marketing BS like the Wizbang cables to hook things up.

Yep, but given that something like a stereo system is 100% a 'want' and not a 'need,' anything goes! I.e., no need for the government to regulate it, let people spend their excess cash on whatever they want...

4067. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 05:02:16 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_438fc862@fidonet.org>
Source record: 67114

"Richard Harrison" bravely wrote to "All" (01 Dec 05 14:18:33)
--- on the heady topic of "Re: Antenna reception theory"

RH> From: richardharrison@webtv.net (Richard Harrison)
RH> Xref: core-easynews rec.radio.amateur.antenna:220709

RH> Roy Lewallen wrote:
RH> "You can find the explanation for why this is in any electromagnetic
RH> text."

RH> I found it in Terman.
[,,,]
RH> From the above, it is seen that the electric field is not effective in
RH> inducing current in a receiving antenna parallel to a wavefront. All
RH> the energy intercepted by the antenna is induced by the magnetic field.

That is outright false. Because I can very easily demonstrate
detecting a static E-field by waving a sensitive probe across it.
An antenna is just a stationary probe with a moving E-field. It is
equivalent. Terman sucks.

A*s*i*m*o*v

... Horse sense is the result of stable thinking.

4068. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 05:24:42 UTC
From: Tori <Tori@tori.com>
Message-ID: <438FDA98.18A4361A@tori.com>
Source record: 67115

http://groups.google.com/

mcalhoun@ksu.edu wrote:

> Note the multi-group posting.
>
> For 18 years, I've been reading newgroups on Unix (or Linux) machines,
> first using "rn" (readnews) and later "nn" (netnews), but now my ISP
> (Kansas State University) has notified me that, because their news server
> is getting old and because I'm one of only a very few users, they are
> dropping the service as of 28 December.
>
> So I need to find an alternative way of getting my daily "fix";
> I sure hope someone has suggestion(s)!
> --
> --Myron A. Calhoun.
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4069. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 05:25:27 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <bVQjf.3429$Hk1.81@newsread1.news.pas.earthlink.net>
Source record: 67116

Richard Clark wrote:

> On Tue, 29 Nov 2005 04:28:22 GMT, "W. Watson"
> <wolf_tracks@invalid.com> wrote:
>
>
>>A book by that title was not found on Amazon. You're not thinking of the
>>latest edition of his "Antennas" are you?
>
>
> Hi OM,
>
> Amazon is a poor start. Try a real book vendor:
> http://www.alibris.com/search/search.cfm?qwork=349517&wtit=%22Antennas%20for%20All%20Applications&ptit=Antennas%20for%20All%20Applications&pauth=Kraus%2C%20John%20Daniel%2C%20and%20Leet%2C%20Kenneth%20J&pisbn=&pqty=3&pqtynew=3&pbest=84%2E18&pbestnew=84%2E18&matches=3&qsort=r&cm_re=works*listing*title
> where there are three available. You may not like the price, however.
>
> 73's
> Richard Clark, KB7QHC
Yes, that is pretty steep. However, Kraus's 3rd edition of "Antennas" is
$165. I'll be down in the SF Bay Area this weekend. Maybe I can find it at a
library down there, or arrange to get an interlibrary loan. I use albris on
occasion. Glad you reminded me of it.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in arid or desert country? Check your
boots well to see if you have a scorpion in them.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4070. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 05:30:24 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <QZQjf.3430$Hk1.3217@newsread1.news.pas.earthlink.net>
Source record: 67117

Cecil Moore wrote:

> Richard Clark wrote:
>
>> <wolf_tracks@invalid.com> wrote:
>>
>>> A book by that title was not found on Amazon. You're not thinking of
>>> the latest edition of his "Antennas" are you?
>
>
> "for all applications" is part of a subtitle.
>
>> Amazon is a poor start. Try a real book vendor:
>> http://www.alibris.com/search/search.cfm?qwork=349517&wtit=%22Antennas%20for%20All%20Applications&ptit=Antennas%20for%20All%20Applications&pauth=Kraus%2C%20John%20Daniel%2C%20and%20Leet%2C%20Kenneth%20J&pisbn=&pqty=3&pqtynew=3&pbest=84%2E18&pbestnew=84%2E18&matches=3&qsort=r&cm_re=works*listing*title
>>
>> where there are three available. You may not like the price, however.
>
>
> Prices ($31) are good here:
> http://dogbert.abebooks.com/servlet/SearchResults?y=11&isbn=0072321032&x=44
Interesting. It's in San Jose. I'll be there Saturday. I wonder where they
are? (Cheapestbooks). Interesting source.

When I was a student (a very long time ago), I would sometimes buy paperback
books of many texts from Blackwells in England. The price was usually about
1/2. Sometimes (back then, and maybe still), one could by tech books from
China that was on almost tissue paper pages. They were quite cheap.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

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-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4071. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 05:40:20 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <87Rjf.171$Of1.4@newsread3.news.pas.earthlink.net>
Source record: 67118

K7JEB wrote:

> On Thu, 01 Dec 2005 00:20:41 GMT, "W. Watson"
> <wolf_tracks@invalid.com> wrote:
>
>
>>>I don't have any experience with the Radio
>>>Shack line filter (Catalog # 15-1111), but it
>>>looks like it might do the job for you.
>
>
>>The RShk ferrite rectangles didn't help.
>>Interesting about the Corcom filters. I'm going
>>down to a radio shop on Friday, HSC in Sacramento.
>>Maybe I can find something there.
>
>
> Take a look at the 15-1111 on www.radioshack.com.
> It is NOT a clamp-on ferrite choke, but rather
> a filter like the Corcom. I just thought it might
> be a bit more accessible. But if you can find a
> 10-amp Corcom, go for it! (Actually, a 3-amp model
> should work). Anyway, your problem is definitely
> solvable, and for relatively little $$$.
>
> Jim, K7JEB
>
>
>
Good. Thanks. I'll try RS tomorrow. Sometimes they don't have to stock them.
I'll be going by Fry's Electronics tomorrow in Sacramento. They stock one
heck of a lot of electronics stuff. I think I'll call down first or try
there web site for the corcom.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in arid or desert country? Check your
boots well to see if you have a scorpion in them.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4072. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 07:17:14 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1133507834.533217.123570@f14g2000cwb.googlegroups.com>
Source record: 67119

Harold E. Johnson wrote:
> > I've seen suggestions here and there about simply aiming a beam
> > vertically upward and doing all the tuning at ground level instead.
> > Which would save an awful lot of time and effort. If it works. Does
> > anybody around here have any experience with this method and if so how
> > succesful was it?
> >
> > Thanks,
> >
> > Brian w3rv
>
> Works fine with a yagi, I've always just lashed a 2 x 4 to the tower and
> "hung" the antenna off the side of the tower pointed straight up. There's a
> null off the bottom of the yagi, and it ignores the tower as well. Not sure
> of the topology of your "hexbeam" thingie, but if you can get it to ignore
> things around it, the reflector, if it's doing any reflecting at all, will
> remove the ground from the tuning process.

The "thingie" is a 'po boy's horizontally collapsed vertically expanded
two element yagi sort of contraption.

http://midcoast.com/~w1gql/hex/hexbeam.htm

Great little rotatable array for those in situations where installation
space is cramped. Which is what I'm stuck with. Just like full-size
yagis they have decent F/B ratios, normally anywhere from 10 to 20dB.
So based on your experience I should be able to use the Sidearm Method
and get the results you've gotten.

Thanks!

> W4ZC

Brian w3rv

4073. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 07:38:42 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1133509122.697246.45140@g49g2000cwa.googlegroups.com>
Source record: 67120

nospam@nouce.bellatlantic.net wrote:
> On 1 Dec 2005 08:23:30 -0800, "Brian Kelly" <kelly@dvol.com> wrote:
>

. . . .

> >I've seen suggestions here and there about simply aiming a beam
> >vertically upward and doing all the tuning at ground level instead.
> >Which would save an awful lot of time and effort. If it works. Does
> >anybody around here have any experience with this method and if so how
> >succesful was it?
> >
> >Thanks,
> >
> >Brian w3rv
>
> It will get you close.

. . . Good. Beats having to taking the beam down and putting it back up several times just to get in the ballpark. I expect to have to do a couple of these final tweaking cycles after rough tuning at ground level. Would be a *big* help.

> However it really depends on the front to
> back of the antenna. Dipoles do poorly this way, 2 element beams
> slightly better. I've done 3 element 6m beams with the reflector only
> 4ft off the ground pointing up with excellent success. Seems the
> breakpoint is some where around better than 10or 12 DB F/B ratio.

Per my response to W4ZCV hexagonal beams typically have 10-20 dB F/B ratios so they're in range of your "breakpoint".

> You do need distance from the ground or it acts like a reflector
> and messes with your measurments.

Understood. Looks like you and W4ZCV are basically in agreement so I'll follow you two in this direction.

Thanks!

> Allison

Brian w3rv

4074. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 08:37:47 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1133512667.186732.171400@z14g2000cwz.googlegroups.com>
Source record: 67121

kd5sak wrote:
. . . .
>
> Another local Ham and I have built two monoband 20 meter versions of the
> HexBeam
> utilizing info from W1GQLs hexbeam website (one with PVC spreaders and one
> with fiberglass rod spreaders). Neither had to be adjusted at all after the
> original wire length was cut.

Somebody did something right.

> Mine has usable tuning at just above ground
> level and it's expected to get only better with height, as the other one
> did.

Without any noticeable resonant point or F/B ratio shifts??

> Granted, we didn't have the other band elements to fuss with. If you
> can get element lengths and vertical separation distances from someone with
> a working multibander chances are you won't need to do any adjusting on
> those, either.

I'm early into my education on building hexbeams and I've seen a bunch
of this type info published but have not yet dug very far ito it.

> W1GQL has suggested, with the finite lifespan of such
> antennas and the current lowpoint of the sunspot cycle, that there is no
> overwhelming need for 10, 12, and 15 meter elements for at least the next
> couple of years.

I don't particularly agree with that. This past weekend hi-band
conditions were below average for the current period but any number of
individual stations operating in the CQ DX CW contest logged hundreds
of 15M contacts each in dozens of countries. Their results on 10M were
dramatically down vs. their results on 15M but their results on 15M
were only down by maybe 20% compared with last year.

I've spent a lot of hours chasing DX on 15M thru a number of sunspot
lows. The biggest problem 15M has is that during the lows the
expectations are that the band is dead like 10M is dead and not worth
bothering with. So they don't. Which is their loss because any number
of times there are great openings on 15M but the few who do tune the
band are all listening instead of transmitting so of course the band
seems "dead". 15M is a gottahave here.

> You might try building your antenna as a monoband 20 meter,
> but construct the antenna with sufficient spreader tension and bow depth

> that you can later add additional bands.

That's reasonable. After thinking about it 12/10M really are coming up
as complete losses so a 20/17/15M version would be a good compromise as
far as the payoffs for the investments in effort go.

> The foregoing advice is free and
> not necessarily valuable, but is given with friendly intent.(G)

. . so are my questions (G).

> My own
> fiberglass HexBeam has a 30" bow depth and I may yet attempt to add a band
> or two later. Good luck with yours however you choose to build it.

Thanks. I'll need it.

>
> Harold
> KD5SAK

Brian w3rv

4075. RAIC Industry Traps

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 12:20:15 UTC
From: GeWaz <vfk57@btinternet.com>
Message-ID: <dmpe5t$eo1$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67122

Hi, I have a pair or RAIC Industry Traps. Model L-80. Does anyone have any info on these or where info can be obtained?
Thank

4076. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 12:39:23 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@dsl.pipex.com>
Message-ID: <Ep6dnZP_ve_H3Q3eRVnyjw@pipex.net>
Source record: 67123
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

You can access newsgroups via Google ,but I believe you then need a
gmail e-mail address ,which is free anyway.

Frank GM0CSZ / KN6WH

====================mcalhoun@ksu.edu wrote:====================

> Note the multi-group posting.
>
> For 18 years, I've been reading newgroups on Unix (or Linux) machines,
> first using "rn" (readnews) and later "nn" (netnews), but now my ISP
> (Kansas State University) has notified me that, because their news server
> is getting old and because I'm one of only a very few users, they are
> dropping the service as of 28 December.
>
> So I need to find an alternative way of getting my daily "fix";
> I sure hope someone has suggestion(s)!

4077. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 13:58:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wqYjf.22881$D13.17489@newssvr11.news.prodigy.com>
Source record: 67124

W. Watson wrote:
> When I was a student (a very long time ago), I would sometimes buy
> paperback books of many texts from Blackwells in England. The price was
> usually about 1/2. Sometimes (back then, and maybe still), one could by
> tech books from China that was on almost tissue paper pages. They were
> quite cheap.

Here's another good book, "Optics", by Eugene Hecht, for $24, containing
the best treatment of superposition and interference that I have ever seen.

http://dogbert.abebooks.com/servlet/SearchResults?y=9&isbn=0805385665&x=46
--
73, Cecil http://www.qsl.net/w5dxp

4078. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 14:57:43 UTC
From: Eskay <siebklaasNO@SPAMhotmail.com>
Message-ID: <1j1jnzen4s3yz.ipv0cukgl67m$.dlg@40tude.net>
Source record: 67125

On Thu, 01 Dec 2005 17:19:04 GMT, kd5sak wrote:

> "Brian Kelly" <kelly@dvol.com> wrote in message
> news:1133454210.047291.209170@g44g2000cwa.googlegroups.com...
>> I'm mulling the design/homebrewing of a hexagonal 20/17/15/12/10M wire
>> beam a la the Traffie Hexbeam. The problem with just about all projects
>> like this is the number of up/down iterations required to tweak the
>> tuning of the things. Put it up, calculate the required changes in
>> element lengths, take it down, make the adjustments, put it back up to
>> check it again, pull it down and go thru the whole cycle ad nauseam.
>> Pain in the tush.
>>
>> I've seen suggestions here and there about simply aiming a beam
>> vertically upward and doing all the tuning at ground level instead.
>> Which would save an awful lot of time and effort. If it works. Does
>> anybody around here have any experience with this method and if so how
>> succesful was it?
>>
>> Thanks,
>>
>> Brian w3rv
>>
>
> Another local Ham and I have built two monoband 20 meter versions of the
> HexBeam
> utilizing info from W1GQLs hexbeam website (one with PVC spreaders and one
> with fiberglass rod spreaders). Neither had to be adjusted at all after the
> original wire length was cut. Mine has usable tuning at just above ground
> level and it's expected to get only better with height, as the other one
> did. Granted, we didn't have the other band elements to fuss with. If you
> can get element lengths and vertical separation distances from someone with
> a working multibander chances are you won't need to do any adjusting on
> those, either. W1GQL has suggested, with the finite lifespan of such
> antennas and the current lowpoint of the sunspot cycle, that there is no
> overwhelming need for 10, 12, and 15 meter elements for at least the next
> couple of years. You might try building your antenna as a monoband 20 meter,
> but construct the antenna with sufficient spreader tension and bow depth
> that you can later add additional bands. The foregoing advice is free and
> not necessarily valuable, but is given with friendly intent.(G) My own
> fiberglass HexBeam has a 30" bow depth and I may yet attempt to add a band
> or two later. Good luck with yours however you choose to build it.
>
> Harold
> KD5SAK

You could also join the Yahoo newsgroup that is devoted to the Hexbeam.
There is an awfull lot of info in the archives there including photos.
Eskay.

4079. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 16:15:18 UTC
From: richardharrison@webtv.net
Message-ID: <7955-43907316-416@storefull-3256.bay.webtv.net>
Source record: 67126

Asimov wrote:
"Terman sucks."

Termn`s writings have been exposed for anyone to criticize for most of a century. His 1955 edition has been out there for 50 years. No retractions or corrections are necessary.

Detection of static E-fields is not relevant.
Charles Coulomb in 1785 showed electric charges exert forces on each other that are inversely proportional to the square of the distance between them. This was the birth of the "inverse square law" as Coulomb`s discovery applies to magnetic attraction and repulsion, too.

In an electromagnetic field, propagation depends upon the electric field begetting a magnetic field and vice versa. On average, each field contains 50% of the total energy.

The electromagnetic field of an antenna could be calculated from the distribution of voltage on the conductors. Problem is voltmeter leads would be in the r-f field and this would tend to make measured voltages inaccurate. R-F current is conveniently and accurately measured with a thermocouple ammeter.

Strength of an electromagnetic wave is usually measured and quoted in terms of its electric field in volts per meter. This is the number of volts which would be induced in a one-meter length of wire placed in the field parallel to the electric lines of force. Volts in the wire are produced by movement of magnetic flux across the wire.

Best regards, Richard Harrison, KB5WZI

4080. Re: Ground-Level HF Beam Tuning?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 16:43:16 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <87u0p1d8m9bkrp8c8ogtmmqfafumiq46vb@4ax.com>
Source record: 67127

On 1 Dec 2005 23:38:42 -0800, "Brian Kelly" <kelly@dvol.com> wrote:

>
>nospam@nouce.bellatlantic.net wrote:
>> On 1 Dec 2005 08:23:30 -0800, "Brian Kelly" <kelly@dvol.com> wrote:
>>
>
>. . . .
>
>> >I've seen suggestions here and there about simply aiming a beam
>> >vertically upward and doing all the tuning at ground level instead.
>> >Which would save an awful lot of time and effort. If it works. Does
>> >anybody around here have any experience with this method and if so how
>> >succesful was it?
>> >
>> >Thanks,
>> >
>> >Brian w3rv
>>
>> It will get you close.
>
>. . . Good. Beats having to taking the beam down and putting it back up
>several times just to get in the ballpark. I expect to have to do a
>couple of these final tweaking cycles after rough tuning at ground
>level. Would be a *big* help.
>
>> However it really depends on the front to
>> back of the antenna. Dipoles do poorly this way, 2 element beams
>> slightly better. I've done 3 element 6m beams with the reflector only
>> 4ft off the ground pointing up with excellent success. Seems the
>> breakpoint is some where around better than 10or 12 DB F/B ratio.
>
>Per my response to W4ZCV hexagonal beams typically have 10-20 dB F/B
>ratios so they're in range of your "breakpoint".
>
>> You do need distance from the ground or it acts like a reflector
>> and messes with your measurments.
>
>Understood. Looks like you and W4ZCV are basically in agreement so I'll
>follow you two in this direction.
>
>Thanks!

The yabut/gotcha is until the beam is acting like one you don't have
the F/B ratio to rely on so it may take an iteration or two before you

converge. Once you are in the fine tuning range it should work
well pointing it up. This is a problem that most Yagis don't have
as tuning is limited to tweeking the match for the driver and maybe
the driven element length to make the match work right. So what
regular yagis are tuned up pointing up they are really just having the
match set up correctly(usually).

Allison

4081. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 17:02:34 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndp0vha.1a2r.bit-bucket@shell.config.com>
Source record: 67128
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Fri, 02 Dec 2005 12:39:23 +0000, Highland Ham wrote:
> You can access newsgroups via Google ,but I believe you then need a
> gmail e-mail address ,which is free anyway.
>
> Frank GM0CSZ / KN6WH
>
>====================mcalhoun@ksu.edu wrote:====================
>
>> Note the multi-group posting.
>>
>> For 18 years, I've been reading newgroups on Unix (or Linux) machines,
>> first using "rn" (readnews) and later "nn" (netnews), but now my ISP
>> (Kansas State University) has notified me that, because their news server
>> is getting old and because I'm one of only a very few users, they are
>> dropping the service as of 28 December.
>>
>> So I need to find an alternative way of getting my daily "fix";
>> I sure hope someone has suggestion(s)!

And, using Google, you run the risk of being killfiled by a Great Many
usenet denizens because of the gawd-awful defaults Google uses for
follow-ups in its posting configuration. But, then, you knew that...

So, you being a *nix user, I can't see you getting excited about doing
usenet 'text work' with a bloated cartoon interface. I'm a *nix user,
too, and I can recommend Individual.net (http://news.individual.net/).
It's is the follow-on/re-incarnation of the free news.cis.dfn.de. It
costs 10 Euro per year and it's well worth it. I used the online sign-up
and paid via the FirstgGate (http://firstgate.com/EU/en/info.html)
service they use.

Now, if only slrn could score on top-posters. sigh...

HTH
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

4082. Re: Free Catalog: Coax Cable, Connectors & Adapters

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 17:08:02 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndp0vri.1a2r.bit-bucket@shell.config.com>
Source record: 67129

On Thu, 1 Dec 2005 10:08:27 -0800, AAA RF Products wrote:
> For your free copy of our new catalog,

Limit detector tripped! *plonk*

4083. hi im crisco kathy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 18:30:50 UTC
From: Kathy Lee <KC8QJP@yahoo.net>
Message-ID: <1133548250.70ba59deb172bfa745d5dd0a96cdfbe1@fe5.teranews.com>
Source record: 67130
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.antenna

I AM CRISCO KATHY,TAX SEASON IS ALMOST UPON US. I
CAN GET YOU THE BEST
RETURN. IT MIGHT BE A LITTLE BIT ILLEGAL.BUT WHAT
THE HECK,THE
GOVERMENT TAKES TO MUCH OF OUR MONEY. BE SURE AND
BRING A BIG CAN OF
CRISCO WITH YOU. I WORK BEST ON MY KNEES WHILE
SOMEONE SLATHERS MY FAT
ASS WITH CRISCO. BRING A BIG CAN, I HAVE A VERY
LARGE ASS.

4084. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 19:17:51 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dmq78j$o9e$1@news.service.uci.edu>
Source record: 67131

Asimov wrote:
> "Richard Harrison" bravely wrote to "All" (01 Dec 05 14:18:33)
> --- on the heady topic of "Re: Antenna reception theory"
>
> RH> From: richardharrison@webtv.net (Richard Harrison)
> RH> Xref: core-easynews rec.radio.amateur.antenna:220709
>
> RH> Roy Lewallen wrote:
> RH> "You can find the explanation for why this is in any electromagnetic
> RH> text."
>
> RH> I found it in Terman.
> [,,,]
> RH> From the above, it is seen that the electric field is not effective in
> RH> inducing current in a receiving antenna parallel to a wavefront. All
> RH> the energy intercepted by the antenna is induced by the magnetic field.
>
>
> That is outright false. Because I can very easily demonstrate
> detecting a static E-field by waving a sensitive probe across it.
> An antenna is just a stationary probe with a moving E-field. It is
> equivalent.

Consider the direction the E field is moving and which direction any
electrostatically induced current might flow. Then apply the same
criteria to a magnetic field.

A*C*6*X*G

Terman sucks.
>
> A*s*i*m*o*v
>
> ... Horse sense is the result of stable thinking.
>

4085. Re: hi im crisco kathy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 22:25:21 UTC
From: Chuck <chuck@echeese.com>
Message-ID: <11p1ieinc6dj38e@corp.supernews.com>
Source record: 67132
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Doug says I should stop by and you could get me lots of money back if I bring some crisco. But all I have is canola oil as I am on a heart healthy diet and eating that much crisco out of your snatch would surely cause a clogged artery.

"Kathy Lee" <KC8QJP@yahoo.net> wrote in message news:1133548250.70ba59deb172bfa745d5dd0a96cdfbe1@fe5.teranews.com...
>I AM CRISCO KATHY,TAX SEASON IS ALMOST UPON US. I
> CAN GET YOU THE BEST
> RETURN. IT MIGHT BE A LITTLE BIT ILLEGAL.BUT WHAT
> THE HECK,THE
> GOVERMENT TAKES TO MUCH OF OUR MONEY. BE SURE AND
> BRING A BIG CAN OF
> CRISCO WITH YOU. I WORK BEST ON MY KNEES WHILE
> SOMEONE SLATHERS MY FAT
> ASS WITH CRISCO. BRING A BIG CAN, I HAVE A VERY
> LARGE ASS.
>
>
>

4086. Re: hi im crisco kathy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-02 23:20:55 UTC
From: Jack O'Neill <tokras@optonline.net>
Message-ID: <kF4kf.13$Kf4.12@fe08.lga>
Source record: 67133
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.antenna

jezzzzzzzz

Chuck wrote:

>Doug says I should stop by and you could get me lots of money back if I
>bring some crisco. But all I have is canola oil as I am on a heart healthy
>diet and eating that much crisco out of your snatch would surely cause a
>clogged artery.
>
>"Kathy Lee" <KC8QJP@yahoo.net> wrote in message
>news:1133548250.70ba59deb172bfa745d5dd0a96cdfbe1@fe5.teranews.com...
>
>
>>I AM CRISCO KATHY,TAX SEASON IS ALMOST UPON US. I
>>CAN GET YOU THE BEST
>>RETURN. IT MIGHT BE A LITTLE BIT ILLEGAL.BUT WHAT
>>THE HECK,THE
>>GOVERMENT TAKES TO MUCH OF OUR MONEY. BE SURE AND
>>BRING A BIG CAN OF
>>CRISCO WITH YOU. I WORK BEST ON MY KNEES WHILE
>>SOMEONE SLATHERS MY FAT
>>ASS WITH CRISCO. BRING A BIG CAN, I HAVE A VERY
>>LARGE ASS.
>>
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>
>

4087. Re: hi im crisco kathy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 01:31:27 UTC
From: me <me@me.com>
Message-ID: <eat1p1lk293g412mde2d8uu391t8lcmfuh@4ax.com>
Source record: 67134
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Nice lame attempt at a troll post using my name. dumbass

On Fri, 2 Dec 2005 16:25:21 -0600, "Chuck" <chuck@echeese.com> wrote:

>Doug says I should stop by and you could get me lots of money back if I
>bring some crisco. But all I have is canola oil as I am on a heart healthy
>diet and eating that much crisco out of your snatch would surely cause a
>clogged artery.
>
>"Kathy Lee" <KC8QJP@yahoo.net> wrote in message
>news:1133548250.70ba59deb172bfa745d5dd0a96cdfbe1@fe5.teranews.com...
>>I AM CRISCO KATHY,TAX SEASON IS ALMOST UPON US. I
>> CAN GET YOU THE BEST
>> RETURN. IT MIGHT BE A LITTLE BIT ILLEGAL.BUT WHAT
>> THE HECK,THE
>> GOVERMENT TAKES TO MUCH OF OUR MONEY. BE SURE AND
>> BRING A BIG CAN OF
>> CRISCO WITH YOU. I WORK BEST ON MY KNEES WHILE
>> SOMEONE SLATHERS MY FAT
>> ASS WITH CRISCO. BRING A BIG CAN, I HAVE A VERY
>> LARGE ASS.
>>
>>
>>
>

4088. My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 02:28:26 UTC
From: eternalsquire@comcast.net
Message-ID: <1133576906.890685.201870@g47g2000cwa.googlegroups.com>
Source record: 67135

Hi,

It seems that my location boasts 60 to 110 mph winds on a regular basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength radials elevated at 7 feet, with rope guys... and the wind blew it apart like so much tin foil!

Does anyone know of a decent commercial design for less than $1000 for a free standing 30 to 40 foot support that can take this darn wind???

Thanks,

The Eternal Squire

4089. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 03:24:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <9cffe$43911003$97d56a33$7851@ALLTEL.NET>
Source record: 67136

It begs the question, what was it made of? It must have been very thin metal
to blow apart only 16 feet, guyed by ropes.

Please enlighten us.

<eternalsquire@comcast.net> wrote in message
news:1133576906.890685.201870@g47g2000cwa.googlegroups.com...
> Hi,
>
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!
>
> Does anyone know of a decent commercial design for less than $1000 for
> a free standing 30 to 40 foot support that can take this darn wind???
>
> Thanks,
>
> The Eternal Squire
>

4090. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 04:31:24 UTC
From: eternalsquire@comcast.net
Message-ID: <1133584284.471704.259160@g49g2000cwa.googlegroups.com>
Source record: 67137

Ground system:

5 foot of 1 inch diameter galvanized iron pipe, halfway stuck in ground
with concrete.
1 inch diameter galvanized coupler
5 foot of 1 inch diameter galvanized pipe
1 inch to 3/4 inch copper reducer
1 foot of 3/4 inch copper pipe
4 tees: 3/4 inch thru vs 1/2 inch out, soldered lengthwise along
copper pipe.
an 8 foot length of 1/2 inch copper pipe soldered into each tee
tees are reinforced above and below radials with a hose clamp
coax shield connected to top of copper pipe

Radiator:
10 feet of 3/4 inch diameter copper pipe
9 foot carbon fiber fishing rod, handle epoxied and inserted into pipe
a wire is attached to copper pipe and run up to end of rod.
Hot end of coax connected to bottom of copper pipe

Ground system and Radiator are connected in-line with a PVC twist shaft
coupler designed for 3/4 inch pipe, weather sealed with epoxy. A gap
of 1 inch between pipes inside the coupler is filled with styrofoam to
prevent contact.

Rope guys are econnected to the top part of the shaft coupler, as the
middle of the shaft coupler is predicted to be weakest point.

Sure enough, a continuous wind in excess of 60 mph vibrated the shaft
coupler into 2 pieces despite the guys, the radiator then collided with
a radial, knocking a radial out of alignment and ripping apart a hose
clamp. I suspect the wind is going to finish the job overnight.

Sigh,

The Eternal Squire

4091. how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 04:44:32 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <cOedndIan_EpvwzenZ2dnUVZ_sadnZ2d@comcast.com>
Source record: 67138

All,

I am creating a 'scaled' model of a loaded vertical. The model is complete and in place. However I immediately realized I had no idea of the 'theoretical' response. How can I calculate the expected impedance response of a loaded vertical? It a mid load construction,

the base in #10 solid copper 4 inchs,
the coil is .6 pitch, 1 inch diameter, 5 turns #12, measuring .72 uH,
and the top is 4 inch #12.

The antenna appears to resonate at about 112 MHz.

The instrumentation, a directional coupler measuring reflection is located at the base, directly under the 'ground plane'. This allows measuring input and reflected signal strength.

The question is: How can I plot the expected impedance from say 100 MHz to 130 MHz?

Thanks - Dan

4092. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 05:11:05 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43911ae6@fidonet.org>
Source record: 67139

"Jim Kelley" bravely wrote to "All" (02 Dec 05 11:17:51)
--- on the heady topic of "Re: Antenna reception theory"

JK> From: Jim Kelley <jwkelley@nospam.edu>
JK> Xref: core-easynews rec.radio.amateur.antenna:220745

JK> Asimov wrote:
> "Richard Harrison" bravely wrote to "All" (01 Dec 05 14:18:33)
> --- on the heady topic of "Re: Antenna reception theory"
>
> RH> From: richardharrison@webtv.net (Richard Harrison)
> RH> Xref: core-easynews rec.radio.amateur.antenna:220709
>
> RH> Roy Lewallen wrote:
> RH> "You can find the explanation for why this is in any electromagnetic
> RH> text."
>
> RH> I found it in Terman.
> [,,,]
> RH> From the above, it is seen that the electric field is not effective in
> RH> inducing current in a receiving antenna parallel to a wavefront. All
> RH> the energy intercepted by the antenna is induced by the magnetic field.
>
>
> That is outright false. Because I can very easily demonstrate
> detecting a static E-field by waving a sensitive probe across it.
> An antenna is just a stationary probe with a moving E-field. It is
> equivalent.

JK> Consider the direction the E field is moving and which direction any
JK> electrostatically induced current might flow. Then apply the same
JK> criteria to a magnetic field.

JK> A*C*6*X*G

JK> Terman sucks.

I regret having written that Terman sucks. However, I'm reminded that
there is a lot of stuff missing in the 1955 edition of Encyclopedia
Britanica up in the attic. Clearly I don't say the EB sucks either,
so a 1955 book on electromagentic wave theory might be missing a few
things as well. Unless you believe everything that there ever is to
learn about EM is that 1955 book. But it is wrong to state that the
magnetic field alone is responsible for the interception of wave
energy in a metallic conductor.

A*s*i*m*o*v

... Isaac Asimov : 1920-1992 : Gone to the stars!

4093. Re: how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 05:58:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p2d12qnuu0m52@corp.supernews.com>
Source record: 67140

dansawyeror wrote:
> All,
>
> I am creating a 'scaled' model of a loaded vertical. The model is
> complete and in place. However I immediately realized I had no idea of
> the 'theoretical' response. How can I calculate the expected impedance
> response of a loaded vertical? It a mid load construction,
>
> the base in #10 solid copper 4 inchs,
> the coil is .6 pitch, 1 inch diameter, 5 turns #12, measuring .72 uH,
> and the top is 4 inch #12.
>
> The antenna appears to resonate at about 112 MHz.
>
> The instrumentation, a directional coupler measuring reflection is
> located at the base, directly under the 'ground plane'. This allows
> measuring input and reflected signal strength.
>
> The question is: How can I plot the expected impedance from say 100 MHz
> to 130 MHz?
>
> Thanks - Dan

The free EZNEC demo from http://eznec.com will give you the information
you need.

Roy Lewallen, W7EL

4094. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 06:02:50 UTC
From: Falky foo <falkyfoo@bonksbcglobal.net>
Message-ID: <eyakf.29058$Zv5.5957@newssvr25.news.prodigy.net>
Source record: 67141

dude it's 60-100 mph wind! You're gonna have to shell out bucks to make anything that can stand up to that for any length of time.

4095. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 06:34:55 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <j0bkf.114699$375.51863@fe3.news.blueyonder.co.uk>
Source record: 67142

<eternalsquire@comcast.net> wrote in message
news:1133576906.890685.201870@g47g2000cwa.googlegroups.com...
> Hi,
>
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!
>
> Does anyone know of a decent commercial design for less than $1000 for
> a free standing 30 to 40 foot support that can take this darn wind???
>
> Thanks,
>
> The Eternal Squire
>

I use a fishing rod with a wire centre conductor for 40 metres band
(33`without guys), with a 5` mounting pole buried in the ground ....you
ought to see that mother bend ..... hasn`t fallen or blown down yet!!!

;-)

Lee.......G6ZSG.....

4096. bidirectional 440 yagi antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 07:06:53 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <pvbkf.26974$ih5.9937@dukeread11>
Source record: 67143

Does anyone know of a good design for a reasonably high gain bidirectional antenna for a 440mhz video TX? I am putting a 4 watt A/V TX in an RC plane that will fly on auto pilot directly away from the RX, make a 180 degree turn and fly directly back. So to get the best range I was thinking some kind of bidirectional yagi. Depending on element spacing and how big of a plane I get, I can probably only have 3 elements maybe 5.

--
Chris W
KE5GIX

Gift Giving Made Easy
Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4097. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 07:47:50 UTC
From: Stananger <********@***.***>
Message-ID: <G4ckf.1250$xg1.300@trnddc03>
Source record: 67144

eternalsquire@comcast.net wrote:

> Hi,
>
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!
>
> Does anyone know of a decent commercial design for less than $1000 for
> a free standing 30 to 40 foot support that can take this darn wind???
>
> Thanks,
>
> The Eternal Squire

Maybe you should move!

Stan
AH6JR

4098. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 07:53:53 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <vhhjVHoR8UkDFAg6@ifwtech.co.uk>
Source record: 67145

wrote:
>Hi,
>
>It seems that my location boasts 60 to 110 mph winds on a regular
>basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
>radials elevated at 7 feet, with rope guys... and the wind blew it
>apart like so much tin foil!
>
Same kind of location here, wide open to the Irish Sea.... but that wasn't a big antenna, and with the guys it certainly should have stayed up.

You're missing something here. Typical ham antenna structures are a mixture of over-design and weak spots, so maybe you should look at the wreckage in more detail and try to learn something from it.

OK, I just read your second posting and pulled this back from the outbox. From the top downwards...

* Fishing rod good. Carbon fibre not good (possibility of losses and detuning compared with plain fibreglass; definite loss of money compared with plain fg).

* Copper pipe not good in these long lengths. Ask yourself why everyone else uses aluminium.

* PVC pipe coupler not good... well, that you know.

* Again, copper pipes not good for radials. Copper pipe tees not good for supports. If the top part hadn't fallen down, those pipe tees would probably have been next to go.

* 3/4-in copper for your main support mast is a big mistake. The heavy radials flopping up and down create a huge leverage at this point, so that copper will be rapidly work-hardening and well on its way to breaking (may well have done so by your morning).

* In your wind conditions, 1-in galvanized pipe is way too small for the lower part of your mast. The only thing that kept it from snapping is that something else broke first.

* Were your guys helping to reduce the bending forces at the point where the coupling snapped... or helping to concentrate them? In your particular case, I'd bet the latter.

The big lesson is that the construction of a copper J-pole for 2m will not scale up to 20m wavelengths... basically because copper tubing is a

poor structural material, and as the model-makers say, "You can't scale Nature." When you increase the scale by 10x, you have to use different structural materials and techniques.

Again, ask yourself why everyone else uses larger tubing for masts; uses aluminium, not copper; and doesn't use small, soft plastic plumbing fittings. Have a look at HF antenna construction in the antenna handbooks and catalogues, and do what they do... because there's a reason for it.

>Does anyone know of a decent commercial design for less than $1000 for

Hang on now - that would be spending money to *avoid* learning something.

>a free standing 30 to 40 foot support that can take this darn wind???
>
One option that's surviving very strong winds here is a tapering fibreglass pole. I'm using a Spiderbeam telescopic pole that is almost 40ft high and strongly made:
www.spiderbeam.net/english/pole.php

The pole is tied to a very solid clothes-line post at about 7ft, and also guyed at about the 30ft level to prevent the worst of the swaying. In very strong winds it bends into an alarming S-shape, but by the nature of fibreglass it also springs back again.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4099. Re: Stacking Satellite VHF and UHF F9FT Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 09:10:14 UTC
From: alain@alain.it
Message-ID: <1133601014.517739.282180@g47g2000cwa.googlegroups.com>
Source record: 67146

Tom Ring ha scritto:

> alain@alain.it wrote:
>
> > Hello all,
> >
> > I actually own a 2x9 VHF and a 2x19 UHF by F9FT (Tonna).
> > Since I need better performance (especially on VHF) for LEO operations
> > I was thinking about stacking another antenna identical to the one I
> > already have.
> > The suggested stacking distance is 2.77 m. Since I am doing this
> > upgrade I tought about stacking another UHF antenna too so that I would
> > have an horizontal mast 3 meters long, with the VHF yagis at the ends
> > and the UHF yagis in the middle.
> >
> > I have some questions:
> > 1) Will the UHF yagis create troubles to the VHF since they are in the
> > middle?
>
> No.
>
> > 2) What kind of real performance increase will I experience on VHF?
>
> If the spacing is correct you will see roughly 3dB.
>
> > 3) Can I couple the vertical elements with a coupler and the horizontal
> > elements with another coupler and then apply a RCHP/LCHP coupling
> > harness like I would normally do on a single antenna?
>
> This doesn't match what you are speaking of in questions 1 and 2. You
> cannot have the gain you desire and have the second set of antennas
> differently polarized. That is a different configuration which requires
> a feed that gives you circular polarization.

Maybe I did not explain my question well. Considering only the VHF
antennas, I want to couple separately the vertical dipoles and the
horizontal ones. Then I could have two separate antenna feeds, one for
the vertical and the other for the horizontal plane. More pratically I
could use a coaxial relay to be able to switch between vertical and
horizontal.
The question is: can a system like that still be somehow used to have
RHCP and LHCP? Do I simply have to couple the two feeds like I normally
do with single antenna?

Thanks

Alain
iz6byy ww3ww

4100. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 09:44:40 UTC
From: nm5k@wt.net
Message-ID: <1133603080.553747.147780@o13g2000cwo.googlegroups.com>
Source record: 67147

I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
radials elevated at 7 feet, with rope guys... and the wind blew it
apart like so much tin foil!

It decided to blow it down so you could rebuild it with the proper
length radials...:(1/8 radials won't work too well. Why would you
use those? They are fairly useless on an elevated ground plane.
The decoupling of the feedline will be poor, and probably lots
of rf in the shack. Needs 1/4 wave radials to work correctly.
As far as the wind, you need to build a little stouter... Normally, a
short 16 ft radiator should be easy to keep up, even with 60 mph
winds. Shouldn't fall down if it was guyed. My 40 m ground plane
was 32 ft tall, mounted at 36 ft. Nearly 70 ft tall at the top. Only
my mast was guyed. No guys were used on the radiator. I used
a telescoping metal mast which shrunk down to a very thin size
as it neared the top. Was quite flexible. In heavy storms, it would
nearly blow sideways, but it never hurt it, and it always popped
back up straight after the wind left. That particular antenna cost
nothing..Made from an old butchered up 5/8 wave CB antenna as
the base radiator, and then extended with extra tubing.
Was looking at your 2nd post, and notice the details. Not
exactly the recipe for a solid antenna...You would be better off
using an old butchered CB antenna, etc. The cushcraft AR-10
makes a good platform for verticals also. It's a 16-18 ft 1/2 wave
antenna for 10m. If you use only the radiator, and redesign the
feed, thats a decent quicky 20m 1/4 wave vertical. The old heavy duty
5/8 CB antennas are good to use also. They have heavy duty
bases that are often reinforced. Thats what I use for my tall 40m
antenna, and never had a problem, but I did strengthen by adding
extra tubing , inside the tubing. IE: double wall... Copper is pretty
soft, and shouldn't be used for anything that needs real strength.
MK

4101. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 11:25:41 UTC
From: Henry Kiefer <otc_friend@gmx.net>
Message-ID: <439182de$0$20842$9b4e6d93@newsread2.arcor-online.net>
Source record: 67148
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

I used news.cis.dfn.de a while but changed to arcor-news later because of
the now charging at news.cis.dfn.de
Arcor is still free and fast, no reliable problems. You must have a Arcor
login but this is even a free mail-account. If you like I can you send
instructions where. I don't know it just if the head.
Maybe they filter not-german clients out via your IP-address. But why not
give it a try?

Sent via Arcor -
Henry

> So, you being a *nix user, I can't see you getting excited about doing
> usenet 'text work' with a bloated cartoon interface. I'm a *nix user,
> too, and I can recommend Individual.net (http://news.individual.net/).
> It's is the follow-on/re-incarnation of the free news.cis.dfn.de. It
> costs 10 Euro per year and it's well worth it. I used the online sign-up
> and paid via the FirstgGate (http://firstgate.com/EU/en/info.html)
> service they use.
>
> Now, if only slrn could score on top-posters. sigh...
>
> HTH
> Jonesy
> --
> Marvin L Jones | jonz | W3DHJ | linux
> Pueblo, Colorado | @ | Jonesy | OS/2 __
> 38.24N 104.55W | config.com | DM78rf | SK

4102. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 11:58:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p322i7mfa917d@corp.supernews.com>
Source record: 67149

Richard Harrison wrote:
> . . .
> Strength of an electromagnetic wave is usually measured and quoted in
> terms of its electric field in volts per meter. This is the number of
> volts which would be induced in a one-meter length of wire placed in the
> field parallel to the electric lines of force. . .

If the wavelength is >> 1 m, the voltage induced in the center of an
open-circuited 1 m diple by a 1 V/m field is 0.5 volt, not 1 volt.

Roy Lewallen, W7EL

4103. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 13:04:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <vJgkf.26163$7h7.13379@newssvr21.news.prodigy.com>
Source record: 67150

eternalsquire@comcast.net wrote:
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!

I use 2x(2"x4"s) fastened together for a 4"x4" support and 1/4WL
wire radials as ground-plane/guy-wires. The vertical section is
assembled from 6' telescoping aluminum sections following the beam
element design guidelines in the ARRL Antenna Book. The top 8.5'
is a stainless steel CB whip. It has withstood wind gusts of about
100 mph. As others have said, copper is a poor choice for a 20m
vertical.
--
73, Cecil http://www.qsl.net/w5dxp

4104. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 13:22:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dms65t$l87$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67151

Roy,

What is the voltage measured between the bottom-end of a 1 metre
vertical antenna and a perfect ground when the field strength is 1 V/m
and the wavelength is >> 1 m.

Reg.

4105. Re: bidirectional 440 yagi antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 15:04:01 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <afc3p1poqc1mmb9inpl4e3cc9rd7ekqum9@4ax.com>
Source record: 67152

A simple dipole will do what you want. That is a lot of power in the
airborne TX. 400 mw is still over kill and 40 mw will probably do the
job. At some point you will need to regain control with conventional
RC equipment and getting a signal into the airplane with that much
radiated power may not be easy.

If you are short on the RC airplane experience I suggest you consider
a Telemaster from Hobby Lobby. Smaller versions are available for
experience and the Senior (8 foot span) with carry many pounds of pay
load.

What you are considering is called an RPV and is a hot item in
military use now days.
John Ferrell W8CCW

On Sat, 03 Dec 2005 01:06:53 -0600, Chris W <1qazse4@cox.net> wrote:

>Does anyone know of a good design for a reasonably high gain
>bidirectional antenna for a 440mhz video TX? I am putting a 4 watt A/V
>TX in an RC plane that will fly on auto pilot directly away from the RX,
>make a 180 degree turn and fly directly back. So to get the best range
>I was thinking some kind of bidirectional yagi. Depending on element
>spacing and how big of a plane I get, I can probably only have 3
>elements maybe 5.
John Ferrell W8CCW

4106. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 15:28:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmsdj7$7aj$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67153

Actually, pure aluminium is even softer and far more ductile than
copper and is useless as a construction material.

But some grades of copper/aluminium alloy, known in the UK as
Duraluminum or just Dural, have properties approaching carbon steel
and are corrosion resistant. Light in weight. Easily machined and
extruded. Maintain a good appearance. High electrical conductivity.
More expensive than steel.

They are used, for example, for ladders and scaffold poles. When used
for tubular rigid dipoles and antenna masts they collapse under high
winds only because the wall thickness is too thin. Commonly used for
radio chassis and sheet metal roofs.

But NOT pure aluminium, just a few percent of copper.

Reg.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:vJgkf.26163$7h7.13379@newssvr21.news.prodigy.com...
> eternalsquire@comcast.net wrote:
> > It seems that my location boasts 60 to 110 mph winds on a regular
> > basis. I had put up a 1/4 wavelength 20m vertical with 1/8
wavelength
> > radials elevated at 7 feet, with rope guys... and the wind blew it
> > apart like so much tin foil!
>
> I use 2x(2"x4"s) fastened together for a 4"x4" support and 1/4WL
> wire radials as ground-plane/guy-wires. The vertical section is
> assembled from 6' telescoping aluminum sections following the beam
> element design guidelines in the ARRL Antenna Book. The top 8.5'
> is a stainless steel CB whip. It has withstood wind gusts of about
> 100 mph. As others have said, copper is a poor choice for a 20m
> vertical.
> --
> 73, Cecil http://www.qsl.net/w5dxp

4107. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 15:50:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <a9jkf.31552$tV6.2299@newssvr27.news.prodigy.net>
Source record: 67154

Reg Edwards wrote:
> But NOT pure aluminium, just a few percent of copper.

Next time I'll have to remember what a purist you are,
Reg. I'll specify Aluminum 6063-T832 or some such.
--
73, Cecil http://www.qsl.net/w5dxp

4108. Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 15:52:30 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <b9f3p1t0m4br91g16oaon8sqp5u8o6r7if@4ax.com>
Source record: 67156
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc.rec.radio.amateur.homebrew

Hello guys,

I recently picked up an old vector network analyser in working order
but minus the 3 interconnects between it and the
transmission/reflection bridge. These are specified in the manual to
be exactly 24" long, 50 ohms and terminated by N-type plugs.
I've been told the length of these patch leads is quite critical to
getting accurate measurements with this VNA, but am at a loss to work
out why 24" is specified when the frequency range of this device is
4Mhz to 1300Mhz. If it were only capable of measuring at one fixed
frequency, I could understand the need for a specifically cut length
of some fraction of a wavelength.
Can anyone explain the relevance of 24" in this context?
Also, will *any* 50 ohm coax suffice for this purpose or has it got to
be something special?
Thanks,
P.
--

"What is now proved was once only imagin'd" - William Blake

4109. Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 16:19:29 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <1bh3p11kcftnc9rtrhfihqc7r2olhe2oqj@4ax.com>
Source record: 67159
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hello guys,

I recently picked up an old vector network analyser in working order
but minus the 3 interconnects between it and the
transmission/reflection bridge. These are specified in the manual to
be exactly 24" long, 50 ohms and terminated by N-type plugs.
I've been told the length of these patch leads is quite critical to
getting accurate measurements with this VNA, but am at a loss to work
out why 24" is specified when the frequency range of this device is
4Mhz to 1300Mhz. If it were only capable of measuring at one fixed
frequency, I could understand the need for a specifically cut length
of some fraction of a wavelength.
Can anyone explain the relevance of 24" in this context?
Also, will *any* 50 ohm coax suffice for this purpose or has it got to
be something special?
Thanks,
P.
--

"What is now proved was once only imagin'd" - William Blake

4110. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 16:38:30 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11p3ig9jra7ppf4@corp.supernews.com>
Source record: 67155

Visit a farm supply house and see what they have for aluminum tubing...the
stuff they use for making racks for trucks and pickups.
<eternalsquire@comcast.net> wrote in message
news:1133576906.890685.201870@g47g2000cwa.googlegroups.com...
> Hi,
>
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!
>
> Does anyone know of a decent commercial design for less than $1000 for
> a free standing 30 to 40 foot support that can take this darn wind???
>
> Thanks,
>
> The Eternal Squire
>

4111. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 16:58:23 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-FAB984.11582403122005@news.verizon.net>
Source record: 67157
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

In article <439182de$0$20842$9b4e6d93@newsread2.arcor-online.net>,
"Henry Kiefer" <otc_friend@gmx.net> wrote:

> I used news.cis.dfn.de a while but changed to arcor-news later because of
> the now charging at news.cis.dfn.de
> Arcor is still free and fast, no reliable problems. You must have a Arcor
> login but this is even a free mail-account. If you like I can you send
> instructions where. I don't know it just if the head.
> Maybe they filter not-german clients out via your IP-address. But why not
> give it a try?
>
> Sent via Arcor -
> Henry
>
>
> > So, you being a *nix user, I can't see you getting excited about doing
> > usenet 'text work' with a bloated cartoon interface. I'm a *nix user,
> > too, and I can recommend Individual.net (http://news.individual.net/).
> > It's is the follow-on/re-incarnation of the free news.cis.dfn.de. It
> > costs 10 Euro per year and it's well worth it. I used the online sign-up
> > and paid via the FirstgGate (http://firstgate.com/EU/en/info.html)
> > service they use.
> >
> > Now, if only slrn could score on top-posters. sigh...
> >
> > HTH
> > Jonesy
> > --
> > Marvin L Jones | jonz | W3DHJ | linux
> > Pueblo, Colorado | @ | Jonesy | OS/2 __
> > 38.24N 104.55W | config.com | DM78rf | SK
>
>

I have used the Google newsgroups on occasion. All you need is a
browser. I don't care for the interface though.

Al

4112. Re: bidirectional 440 yagi antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 17:00:06 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <ybkkf.27004$ih5.2290@dukeread11>
Source record: 67158

John Ferrell wrote:

>A simple dipole will do what you want. That is a lot of power in the
>airborne TX. 400 mw is still over kill and 40 mw will probably do the
>job. At some point you will need to regain control with conventional
>RC equipment and getting a signal into the airplane with that much
>radiated power may not be easy.
>
>If you are short on the RC airplane experience I suggest you consider
>a Telemaster from Hobby Lobby. Smaller versions are available for
>experience and the Senior (8 foot span) with carry many pounds of pay
>load.
>
>

I guess you didn't notice the part about an autopilot, I plan on having the plane fly out about 10 or 15 miles out and then back, not just where I can see it. I have several years and a few hundred hours experience flying RC planes but still plan on using a plane that is reasonably easy to fly so the autopilot has an easier time controlling it. I have a few tests I plan to do to check if the video TX will cause a problem with the RC RX. I will rig up a servo to turn the video TX on and off and will set a fail safe so that if the RC RX can't get it's signal it will shut off the video TX. I will first set the video TX to very low power (the TX I am looking at is adjustable from 0 to 4+ watts), then I will make sure my video shut off switch is working good then make small increases in the video TX power and see how far away I can fly the plane before the fail safe shuts down the video TX.

If the high power video TX does prevent me from retaking control of the plane from the autopilot/GPS navigation system, I have a plan B that I am working on. A system that will make adjustments in video TX output power at various way points, so it adjusts the power up as it gets farther away, and back down as it gets closer, this will have the added benefit of increasing the life of my video TX battery. I'm not sure how I will do that yet but I have a few ideas I am looking into.

--
Chris W
KE5GIX

Gift Giving Made Easy
Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!

http://thewishzone.com

4113. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 17:20:29 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <de9cd$4391d3e4$97d56a33$11078@ALLTEL.NET>
Source record: 67160

The pipe thread area is a point of weakness and the overlap is way to short
to provide any strength. A better alternative is aluminum tubing with .058
wall thickness.

This allows decending sizes to fit with in one another. For example a 1"
6061 T6 10 foot long has an inside diameter of .884 and a 10 foot section of
7/8" (.875) will slide right into it. This would allow an overlap of almost
4 feet providing all the strength you need.

Good luck on your next installation.
<eternalsquire@comcast.net> wrote in message
news:1133584284.471704.259160@g49g2000cwa.googlegroups.com...
> Ground system:
>
> 5 foot of 1 inch diameter galvanized iron pipe, halfway stuck in ground
> with concrete.
> 1 inch diameter galvanized coupler
> 5 foot of 1 inch diameter galvanized pipe
> 1 inch to 3/4 inch copper reducer
> 1 foot of 3/4 inch copper pipe
> 4 tees: 3/4 inch thru vs 1/2 inch out, soldered lengthwise along
> copper pipe.
> an 8 foot length of 1/2 inch copper pipe soldered into each tee
> tees are reinforced above and below radials with a hose clamp
> coax shield connected to top of copper pipe
>
> Radiator:
> 10 feet of 3/4 inch diameter copper pipe
> 9 foot carbon fiber fishing rod, handle epoxied and inserted into pipe
> a wire is attached to copper pipe and run up to end of rod.
> Hot end of coax connected to bottom of copper pipe
>
> Ground system and Radiator are connected in-line with a PVC twist shaft
> coupler designed for 3/4 inch pipe, weather sealed with epoxy. A gap
> of 1 inch between pipes inside the coupler is filled with styrofoam to
> prevent contact.
>
> Rope guys are econnected to the top part of the shaft coupler, as the
> middle of the shaft coupler is predicted to be weakest point.
>
> Sure enough, a continuous wind in excess of 60 mph vibrated the shaft
> coupler into 2 pieces despite the guys, the radiator then collided with
> a radial, knocking a radial out of alignment and ripping apart a hose
> clamp. I suspect the wind is going to finish the job overnight.
>

> Sigh,
>
> The Eternal Squire
>

4114. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 18:00:05 UTC
From: Dave <noone@nowhere.com>
Message-ID: <HZudnQInwp6yQAzenZ2dnUVZ_sqdnZ2d@crocker.com>
Source record: 67161
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.homebrew

it is likely the 'real' requirement is that they be exactly the same length.
though there may be some maximum length because of attenuation at the top
end. there is also a possibility that they figure in some length of coax
and calibrate that into the system, though i would think that is less
likely.

"Paul Burridge" <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote
in message news:1bh3p11kcftnc9rtrhfihqc7r2olhe2oqj@4ax.com...
> Hello guys,
>
> I recently picked up an old vector network analyser in working order
> but minus the 3 interconnects between it and the
> transmission/reflection bridge. These are specified in the manual to
> be exactly 24" long, 50 ohms and terminated by N-type plugs.
> I've been told the length of these patch leads is quite critical to
> getting accurate measurements with this VNA, but am at a loss to work
> out why 24" is specified when the frequency range of this device is
> 4Mhz to 1300Mhz. If it were only capable of measuring at one fixed
> frequency, I could understand the need for a specifically cut length
> of some fraction of a wavelength.
> Can anyone explain the relevance of 24" in this context?
> Also, will *any* 50 ohm coax suffice for this purpose or has it got to
> be something special?
> Thanks,
> P.
> --
>
> "What is now proved was once only imagin'd" - William Blake

4115. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 18:48:38 UTC
From: toor@iquest.net
Message-ID: <dmspa6srh1@news.iquest.net>
Source record: 67162

In article <11otv7q7vq0a450@corp.supernews.com>,
"Jeff Dieterle" <jdieter@nospam.carlnet.org> writes:
>>>> You never mention how far away you are from "... Indianapolis 1070kc and
>>>> Chicago 670kc & 1000kc." That'll have a LARGE bearing on the day/night
>>>> reception question.
>>>>
>>>> Jonesy
>>>> --
>>>> Marvin L Jones | jonz | W3DHJ | linux
>>>> Pueblo, Colorado | @ | Jonesy | OS/2 __
>>>> 38.24N 104.55W | config.com | DM78rf | SK
>
> I'm 70mi from Indy and 120mi from Chicago. Chicago 670kc is reasonable at
> night 1070kc out of Indy at night is pretty bad.
> Is 40ft at right angles to these signals better that 200ft parallel?
>
(This doesn't solve your problem, but might give you some info as to
why the reception of WIBC is somewhat difficult.)

Given your distances, then you are somewhere between Indy and Chicago.

WIBC drops their power significantly at night, and also the antenna
pattern shows that the available signal is probably the worst possible
given the antenna :-(. Here is a picture of the WIBC pattern, and
consider the WIBC towers are on the NW side of Indy.

http://www.fcc.gov/Bureaus/MB/Databases/AM_DA_patterns/306964-6786.pdf

John

4116. Re: OFF TOPIC, but how do y'all read these news groups?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 19:22:09 UTC
From: Henry Kiefer <otc_friend@gmx.net>
Message-ID: <4391f3de$0$20858$9b4e6d93@newsread2.arcor-online.net>
Source record: 67163
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Google interface is nice but overloaded. I prefer to offline action what is
not possible with Google.

- Henry

"Al" <no.spam@wanted.com> schrieb im Newsbeitrag
news:no.spam-FAB984.11582403122005@news.verizon.net...
> In article <439182de$0$20842$9b4e6d93@newsread2.arcor-online.net>,
> "Henry Kiefer" <otc_friend@gmx.net> wrote:
>
> > I used news.cis.dfn.de a while but changed to arcor-news later because
of
> > the now charging at news.cis.dfn.de
> > Arcor is still free and fast, no reliable problems. You must have a
Arcor
> > login but this is even a free mail-account. If you like I can you send
> > instructions where. I don't know it just if the head.
> > Maybe they filter not-german clients out via your IP-address. But why
not
> > give it a try?
> >
> > Sent via Arcor -
> > Henry
> >
> >
> > > So, you being a *nix user, I can't see you getting excited about doing
> > > usenet 'text work' with a bloated cartoon interface. I'm a *nix user,
> > > too, and I can recommend Individual.net (
http://news.individual.net/).
> > > It's is the follow-on/re-incarnation of the free news.cis.dfn.de. It
> > > costs 10 Euro per year and it's well worth it. I used the online
sign-up
> > > and paid via the FirstgGate (http://firstgate.com/EU/en/info.html)
> > > service they use.
> > >
> > > Now, if only slrn could score on top-posters. sigh...
> > >
> > > HTH
> > > Jonesy
> > > --
> > > Marvin L Jones | jonz | W3DHJ | linux
> > > Pueblo, Colorado | @ | Jonesy | OS/2 __
> > > 38.24N 104.55W | config.com | DM78rf | SK
> >

> >
>
> I have used the Google newsgroups on occasion. All you need is a
> browser. I don't care for the interface though.
>
> Al

4117. Re: how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 19:47:46 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4391F662.9070707@comcast.net>
Source record: 67164

Roy,

Thanks, I was able to enter the data into eznec and run the simulation. The output was 'confusing'. Eznec predicted 100 Ohm over various grounds. Other models predict 5 Ohms for the antenna plus ground resistance with a total of 10 Ohms or so. Which is correct? How can the differences be reconciled?

Thanks again - Dan

Roy Lewallen wrote:
> dansawyeror wrote:
>
>> All,
>>
>> I am creating a 'scaled' model of a loaded vertical. The model is
>> complete and in place. However I immediately realized I had no idea of
>> the 'theoretical' response. How can I calculate the expected impedance
>> response of a loaded vertical? It a mid load construction,
>>
>> the base in #10 solid copper 4 inchs,
>> the coil is .6 pitch, 1 inch diameter, 5 turns #12, measuring .72 uH,
>> and the top is 4 inch #12.
>>
>> The antenna appears to resonate at about 112 MHz.
>>
>> The instrumentation, a directional coupler measuring reflection is
>> located at the base, directly under the 'ground plane'. This allows
>> measuring input and reflected signal strength.
>>
>> The question is: How can I plot the expected impedance from say 100
>> MHz to 130 MHz?
>>
>> Thanks - Dan
>
>
> The free EZNEC demo from http://eznec.com will give you the information
> you need.
>
> Roy Lewallen, W7EL

4118. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 19:51:14 UTC
From: Jim <kill-spam@no-spam.org>
Message-ID: <2N2dnc9hUZCragzeRVn-rg@comcast.com>
Source record: 67165
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.homebrew

The phase shift due to the 24 inch coax cables are factored into the Network Analyzer for all frequencies and so any different lengths will cause the correction factor which is built into the analyzer to be wrong and that will make the reading displayed on the screen to be in error.

The phase velocity for most coax cables are similar, so I'd use RG-8 since that accepts type N connectors reasonably well. The impedance bump caused by a thinner cable being adapted to type N cables would be noticeable especially at higher frequencies.

The only major question is whether the original cables had a different velocity factor, and that I can't answer so I'd use the RG-8 and it should be close enough.

Jim Pennell
N6BIU

--

11:50 Pacific Time Zone
Dec 3 2005

International Time
19:50 UTC
03.12.2005

4119. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 21:03:05 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <is14p1l4q3qirl1oqfbae0ngtnm6jftq9i@4ax.com>
Source record: 67166

On Sat, 3 Dec 2005 11:51:14 -0800, "Jim" <kill-spam@no-spam.org>
wrote:

> The phase velocity for most coax cables are similar, so I'd use RG-8 since
>that accepts type N connectors reasonably well. The impedance bump caused
>by a thinner cable being adapted to type N cables would be noticeable
>especially at higher frequencies.
>
> The only major question is whether the original cables had a different
>velocity factor, and that I can't answer so I'd use the RG-8 and it should
>be close enough.

Is the Zo of RG8 52 ohms?

Is the instrument 50 ohms?

Would RG8 introduce error?

Owen
--

4120. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 21:50:02 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <oi44p11nc2n4nklngtgg32sulgesgje9kg@4ax.com>
Source record: 67167
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc.rec.radio.amateur.homebrew

On Sat, 03 Dec 2005 16:52:30 +0100, Paul Burridge
<pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:

>Hello guys,
>
>I recently picked up an old vector network analyser in working order
>but minus the 3 interconnects between it and the
>transmission/reflection bridge. These are specified in the manual to
>be exactly 24" long, 50 ohms and terminated by N-type plugs.
>I've been told the length of these patch leads is quite critical to
>getting accurate measurements with this VNA, but am at a loss to work
>out why 24" is specified when the frequency range of this device is
>4Mhz to 1300Mhz. If it were only capable of measuring at one fixed
>frequency, I could understand the need for a specifically cut length
>of some fraction of a wavelength.
>Can anyone explain the relevance of 24" in this context?
>Also, will *any* 50 ohm coax suffice for this purpose or has it got to
>be something special?

Maybe a mention of the model number would be helpful. My best guess
is that the absolute length is not very important as long as all three
are the same length.

The stability of the cable is likely more important than the exact
type.

4121. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-03 23:45:00 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <3va4p19gdprae1j65nsn7nr2bccmfrfou6@4ax.com>
Source record: 67168
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc.rec.radio.amateur.homebrew

On Sat, 03 Dec 2005 14:50:02 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>Maybe a mention of the model number would be helpful.

Thanks Wes (and others - I'm building up a picture of what's what from
your contributions...)

The VNA in question is an HP 8754A made in about 1979.

>My best guess
>is that the absolute length is not very important as long as all three
>are the same length.

That would explain a lot.

>The stability of the cable is likely more important than the exact
>type.

Yup. So I've been given to understand. But is the loss factor relevant
over just 2 feet at 1300Mhz?
BTW, the guy that asked about the impedance of RG8: it *is* 50 ohms as
far as I can ascertain and if it *were* 52, it surely *would* screw up
the measurement, IMHE!

--

"What is now proved was once only imagin'd" - William Blake

4122. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 00:51:16 UTC
From: EasyRider <easyrider@shaw.ca>
Message-ID: <84rkf.28413$Gd6.6054@pd7tw3no>
Source record: 67169

Try these guys http://www.valcom.ca/welcome.html they make antennas for coastal coast guard shore stations and military ship antennas I had one of the 74 foot shore/vessal antennas it was a 74 feet high with a capasative cap and worked like a hot dam. Mind you I got mine free for the taking at a Canadian Coast Guard station that had replaced the antennas with something bigger.
The Valcombs are used on board ships all over the world and on shore, I got mine where the wind was blowing on average about the same as what you have 90% of the time, a typical shore station locations.
The one I had up weighed 700 lbs and required approx. 6 yard of cement and it never even as much as moved when the wind blew. Sold mine to an amateur in SD aka tornado alley and last I heard he lost his barn but the antenna surived without even as much as a scratch.
Oh by the way it has a really low angle of radiation and worked fantastic for DX, best antenna I've ever used, next to a rombic on the Artic Circle, aka DEW LINE.

73...de ve7agw
Al

<eternalsquire@comcast.net> wrote in message
news:1133576906.890685.201870@g47g2000cwa.googlegroups.com...
> Hi,
>
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!
>
> Does anyone know of a decent commercial design for less than $1000 for
> a free standing 30 to 40 foot support that can take this darn wind???
>
> Thanks,
>
> The Eternal Squire
>

4123. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 01:29:14 UTC
From: eternalsquire@comcast.net
Message-ID: <1133659754.412000.285590@z14g2000cwz.googlegroups.com>
Source record: 67170

All,

Thanks so much for getting back on this... I am located about 50 miles west of Gallup, NM.
I am in a trailer park so I do not have a very large lot. Also while my super is a nice person, amything large enough to seriously ding a trailer if it fell would not be not okay with him. My wife also wants to put a storage shed next to the trailer fairly well adjacent to where I mounted my first pipe into concrete. That limits my choices further.

My YF is generous enough to allow me to keep trying with this antenna, but she is already concerned that I put $300 into it ($175 parts and concrete, $50 tools, $75 to hire someone who speaks propane torch) and thinks that I should leave the design and installation to a professional, hence my question about decent mounting for less than $1000.

For purposes of discussion the dimension limits to be about 25 to 35 foot vertical, and about 8 foot radius for mounted radials. I am allowed to create ground counterpoises up to 40 feet long as long as they snake into the back lot. Severe sway is not allowed as it could spank the trailer.

One thing I have noticed is that street lamps and telephone poles are unguyed but have no problem with this wind. Unfortunately, I am not close enough to either of them to use them for a mounting.

(I cannot move, I am committed to staying. I got laid off by my company in mid-september and we moved to a place where my wife could use her new master's degree in education... and we have to stay in this trailer right next to her school as a condition of her employment... it is, fortunately, low rent forced housing).

Questions:

1) Since I have an 8 foot limit for radials, could I have 1/4 wavelength helical radials for 40m that could fit into an 8 foot length?

1a) Could I do the same helical trick for the radiator as well?

2) My base 1 inch diameter galvanized pipe is presently 2 1/2 foot into a 2 1/2 foot cube concrete filled hole with 2 1/2 foot exposed. What could I screw in it that would not need guying, and would not bend nor sway in 100 mph wind, and how high could I make that?

3) If I run up a metal pipe to 20 foot and then an insulated wire from the dirt to the top alongside the pipe as my radiator, what effect will the pipe have on the radiating wire?

Thanks again,

The Eternal Squire

4124. how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 01:33:18 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <T72dnXshlbv82g_eRVn-ow@comcast.com>
Source record: 67171

All,

I am trying to measure antenna impedance. For this I intend to us a directional coupler to isolate reflected signal. After using the coupler for a while I believe that it introduces a phase shift, that shift seems to be related to frequency. This creates a bit of a catch 22. Antenna resonance is defined as the frequency where there is no reflected complex component. If the tool to measure this is also frequency dependent how can this be accomplished? Is this even the best method?

Do bi-directional couplers automatically compensate for frequency shift?

Thanks - Dan kb0qil

4125. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 03:32:52 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <5k4a63-oo2.ln1@p400bob.personal.cox.net>
Source record: 67174

Hi Dan

Normally you would calibrate your test gear against a known resistive load first. If you coupler creates a phase shift that can be compensated for either in the test equipment or by varying the feedline length. (ouch!) All the network analysers I have used allow you to calibrate 50r, open or short.

You can further test you setup by measuring known lengths of coax "stubs" that would present a reactive load.

I imagine a directional coupler would introduce a phase shift as it has an electrical length that must be allowed for.

I saw a real impressive antenna impedence measuring device that used coaxial cable as the tuned reference elements. It was of course frequency dependent. It was made for 2M but I guess the design would be easy to replicate for other frequencies given. It has about 10% usable bandwidth. I was going to make one for HF with BNC terminated coax lengths for each band, but never did!

Go to http://www.vhfdx.oz-hams.org/and Measurements

or

http://www.vhfdx.oz-hams.org/docs/ZMeterVK2ZAB.pdf

Apologies for not answering your exact questions.

Cheers Bob W5/VK2YQA

dansawyeror wrote:
>
>
> All,
>
> I am trying to measure antenna impedance. For this I intend to us a
> directional coupler to isolate reflected signal. After using the coupler
> for a while I believe that it introduces a phase shift, that shift seems
> to be related to frequency. This creates a bit of a catch 22. Antenna
> resonance is defined as the frequency where there is no reflected
> complex component. If the tool to measure this is also frequency
> dependent how can this be accomplished? Is this even the best method?
>
> Do bi-directional couplers automatically compensate for frequency shift?
>
> Thanks - Dan kb0qil

4126. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 03:35:40 UTC
From: Frank <frank599@nospamtelus.net>
Message-ID: <gutkf.188175$Io.176205@clgrps13>
Source record: 67172

> I am trying to measure antenna impedance. For this I intend to us a
> directional coupler to isolate reflected signal. After using the coupler
> for a while I believe that it introduces a phase shift, that shift seems
> to be related to frequency. This creates a bit of a catch 22. Antenna
> resonance is defined as the frequency where there is no reflected complex
> component. If the tool to measure this is also frequency dependent how can
> this be accomplished? Is this even the best method?
>
> Do bi-directional couplers automatically compensate for frequency shift?
>
> Thanks - Dan kb0qil

What you are measuring with a directional coupler is the complex reflection coeficiant. If the measurement is for low frequencies (i.e. < 30 MHz), and the load is at the input of the directional coupler, then you will probably obtain a realistic figure for complex "Gamma". Ideally you need a short circuit, open circuit, and 50 ohm load to determine if the system is calibrated.

Short circuit Gamma = 1 <180
Open circuit Gamma = 1< 0
50 Ohm Gamma = 0

If the load is at the end of a length of coaxial cable you have to comphensate for the phase shift error at every measurement frequency.

Since you are dealing with complex numbers it is tedious to determine the actual load impedance. The following app. note should help:

http://www.maxim-ic.com/appnotes.cfm/appnote_number/742

HP's app. note at http://www.sss-mag.com/pdf/hpan95-1.pdf is also very helpful.

Regards,

Frank

4127. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 04:03:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p4qke5i7jv82b@corp.supernews.com>
Source record: 67173

Reg Edwards wrote:
> Roy,
>
> What is the voltage measured between the bottom-end of a 1 metre
> vertical antenna and a perfect ground when the field strength is 1 V/m
> and the wavelength is >> 1 m.

1 volt.

Roy Lewallen, W7EL

4128. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 05:03:23 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <O8KdnfC5p9cA5Q_eRVn-ug@comcast.com>
Source record: 67175

On 1-Dec-2005, Phil Wheeler <w6tuh-ng7@yahoo.com> wrote:

> Xref: number1.nntp.dca.giganews.com rec.radio.amateur.antenna:253561
>
> BKR wrote:
> > Computers and computer components are regulated by the FCC.
> > They MUST NOT cause interferance to licenced radio services.
> > (like the radio stations you are trying to tune in.)
> > Make that clear to the vendor you got the power supply from!
> >
>
> Interesting thought but impractical. It could be the installation
> (e.g., grounding) vs. the supply itself. Event if the PSU itself,
> proving it would be a chore.

The noise from PC Power Supplies is usually radiated from the power cord and the house wiring. The
cause is often that the manufacturers cut cost by leaving out the L and C components of the line
filter. Usually you will find the place on the PSU circuit board to mount a bi-filar choke and two
or three capacitors. The capacitors are missing and the pads for the choke are jumpered. If you
can find an older junk PSU which has the components, just unsolder them from the junk board and
install them in your PSU. Sometimes the PSU's in Monitors have the filter components.

When I installed the filter in my old Pentium, the switch mode hash on broadcast band stations went
down by 30 db. Installing line filters outside the CPU Case had very little effect.

-ken-

4129. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 05:13:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p4uo5eo3in7ac@corp.supernews.com>
Source record: 67026

Network analyzers incorporate a concept called a "reference plane". This is a theoretical point at which the measurement is actually made. It's desirable to have this point be at the DUT connector. (In precision and/or extremely high frequency measurements, the point within the connector becomes important, and even a sex-change adapter can't be tolerated between calibration and measurement.) Software in the network analyzer is told where the reference plane is to be by means of a rather involved calibration procedure, then the network's software corrects for the phase shift and impedance magnitude transformation of the cable between the reference plane and the analyzer itself. It effectively makes the reference plane the point being measured, rather than the analyzer input terminal.

When you make manual measurements, you have to do the correction yourself. So what you need to know is the impedance and length of the line between your point of measurement and the DUT. This can be determined in the same way as it's done for some network analyzer calibrations -- by measuring the impedance with the DUT replaced with a short circuit, an open circuit, and a known load impedance, then solving the resulting set of simultaneous equations. Once you know the impedance and length of the cable between where your measurement is correct and the DUT, you can calculate the actual DUT impedance from your measured value. I do this routinely at HF, when I measure antenna impedance at the input end of a transmission line. Accuracy is best when the impedance being measured isn't far from the Z0 of the transmission line, and the transmission line is short. The longer the line and the greater the difference between line Z0 and DUT impedance, the greater the sensitivity to measurement error in both the measured DUT impedance and the line Z0 and length. A surprisingly small amount of line loss can also skew the measurements quite badly if Z0 and DUT impedance are quite different. If you need accurate results, you should do an error analysis to see how far off your calculated result can be, given the estimated accuracy of your measurement and calibration.

As I mentioned in my earlier posting, most people overestimate their ability to make accurate RF measurements. It's not at all trivial. Be sure to check your results frequently by measuring known load impedances close to the values being measured. How do you find the values of those "known" load impedances? Well, welcome to the world of metrology!

Roy Lewallen, W7EL

4130. hfss for modelling antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 06:24:37 UTC
From: guest <ajay101@gmail.com>
Message-ID: <1133677477.253670.211670@o13g2000cwo.googlegroups.com>
Source record: 67027

Hi, I'm using Ansoft HFSS for modelling
a half wave dipole, Signal will be 5v 433 Mhz sine
each half is 2.5" long i.e. < than lambda/2
I'm just not able to figure out how to get the radiation pattern
> Is a radiation boundary necessary?
> Do I have to put in insulation between the two halves as well as on the ends?
> I've modelled the signal as a current excitation in each end face, is that the right way to do it?
> from the above, how do you model a 5v 433Mhz sine wave in HFSS?
Thanks for all your answers

4131. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 06:26:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmu26l$i4d$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67028

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11p4qke5i7jv82b@corp.supernews.com...
> Reg Edwards wrote:
> > Roy,
> >
> > What is the voltage measured between the bottom-end of a 1 metre
> > vertical antenna and a perfect ground when the field strength is 1
V/m
> > and the wavelength is >> 1 m.
>
> 1 volt.
>
> Roy Lewallen, W7EL
==========
Thank you Roy.

I don't doubt that your answer conforms to the learned text books on
the subject. But I am suspicious the text books may be wrong.

I will do some calculations related to radiation resistance and power
available to a matched receiver. If I think my suspicions are correct
then I will come back to you.

Reg.

4132. Re: how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 06:43:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p540b8oe5ig71@corp.supernews.com>
Source record: 67029

I apologize -- I read your earlier posting too hastily. Your antenna requires the full version of EZNEC because of the inductor. While a short inductor can be modeled as a lumped load, that doesn't work well in cases like this where the current changes significantly from one end of the coil to the other due to radiation. The coil has to be modeled as a helix.

A full model of your antenna with the coil properly modeled shows a feedpoint impedance of 5.03 - j212 ohms at 112 MHz over perfect ground. Loss in a real ground system will of course increase the resistance. It resonates at 171 MHz, where the feedpoint resistance is about 17 ohms. My result is far from your finding of resonance around 112 MHz, so maybe I didn't interpret the design correctly -- the antenna I modeled is a total of 11 inches high, the center 3 inches of that being the 1 inch diameter 5 turn coil.

With EZNEC and similar programs, you can only connect directly only to perfect and MININEC-type ground; connection to Real, High-Accuracy ground results in an unpredictable resistance that has no physical meaning. More information can be found in the Modeling Ground chapter of the EZNEC manual under Building The Model.

Roy Lewallen, W7EL

dansawyeror wrote:
> Roy,
>
> Thanks, I was able to enter the data into eznec and run the simulation.
> The output was 'confusing'. Eznec predicted 100 Ohm over various
> grounds. Other models predict 5 Ohms for the antenna plus ground
> resistance with a total of 10 Ohms or so. Which is correct? How can the
> differences be reconciled?
>
> Thanks again - Dan
>
> Roy Lewallen wrote:
>
>> dansawyeror wrote:
>>
>>> All,
>>>
>>> I am creating a 'scaled' model of a loaded vertical. The model is
>>> complete and in place. However I immediately realized I had no idea
>>> of the 'theoretical' response. How can I calculate the expected
>>> impedance response of a loaded vertical? It a mid load construction,

>>>
>>> the base in #10 solid copper 4 inchs,
>>> the coil is .6 pitch, 1 inch diameter, 5 turns #12, measuring .72 uH,
>>> and the top is 4 inch #12.
>>>
>>> The antenna appears to resonate at about 112 MHz.
>>>
>>> The instrumentation, a directional coupler measuring reflection is
>>> located at the base, directly under the 'ground plane'. This allows
>>> measuring input and reflected signal strength.
>>>
>>> The question is: How can I plot the expected impedance from say 100
>>> MHz to 130 MHz?
>>>
>>> Thanks - Dan
>>
>>
>>
>> The free EZNEC demo from http://eznec.com will give you the
>> information you need.
>>
>> Roy Lewallen, W7EL

4133. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 06:57:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p54qa720fpf1b@corp.supernews.com>
Source record: 67030

Reg Edwards wrote:
> Thank you Roy.
>
> I don't doubt that your answer conforms to the learned text books on
> the subject. But I am suspicious the text books may be wrong.
>
> I will do some calculations related to radiation resistance and power
> available to a matched receiver. If I think my suspicions are correct
> then I will come back to you.
> ----
> Reg.

To tell the truth, I got the result for a wire over ground from an NEC-2 model, after first checking to make sure I got the theoretical 0.5 volt for the center of a dipole in free space. (NEC-2 has provision for applying a plane wave to the model.)

In the process of confirming the 0.5 volt value, I found an error in a popular text, Balanis, _Antenna Theory, Analysis and Design_. On p. 61, he incorrectly states that the current along a short dipole "can be assumed to be constant", which isn't true, and from that concludes that the "induced voltage" would be 1 volt when the dipole feedpoint is short circuited. How he defines "induced voltage" with a shorted feepoint isn't clear, but the uniform current assumption he used to get it is incorrect.

Kraus, in _Antennas_, and others get it right, and modeling confirms it.

Roy Lewallen, W7EL

4134. help: antenna inside a box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 08:03:51 UTC
From: jinlu8591@yahoo.com
Message-ID: <1133681998.929717.153920@o13g2000cwo.googlegroups.com>
Source record: 67031

A RF module was integrated with an application. The whole system including the RF module, antenna and application components must be put inside a plastic box (per the users' requirement). Unfortunately, the application components include a transformer and some other metal components, and the box (designed beyond my control) is small, and the antenna is very close to these metal comonents inside the plastic box (very little room inside the box). I found the RF performance (e.g. Tx/Rx distance) is much weaker than if the antenna is farther separated from the the other components (for example, let the antenna stick out of the box...). Could you make some suggestions or guidelines to deal with this situation so that the RF performance is as good as if the antenna is stick out of the box ....

Thanks for your help.

Jin

4135. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 08:11:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmu8be$1u5$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67032

Roy, you have anticipated my thoughts on the subject.

Nevertheless, I will do some calculations.

The proof of the pudding lies in the type of computer programs whose
input data does not depend on unreliabe human imagination about
antenna gain, mirror images and reflections from the ground.

I have no access to the learned text books or computer programs.

Reg, G4FGQ

4136. Re: how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 08:39:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dmu9vo$5pv$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 67033

Roy said -
> While a
> short inductor can be modeled as a lumped load, that doesn't work
well
> in cases like this where the current changes significantly from one
end
> of the coil to the other due to radiation. The coil has to be
modeled as
> a helix.
>
==========
The non-uniform current does not arise from radiation but from the distributed capacitance of the wire turns on the helix to its surroundings.

Distributed inductance and capacitance of the helix behave as a short transmission line and there is a corresponding phase shift between one end and the other in addition to the non-uniform current distribution.

The effects can be estimated by approximate calculations with an adequate degree of accuracy but it requires the right type of computer program (which probably doesn't exist) to provide exact answers.

Reg.

4137. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 08:53:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p5blcru430q9d@corp.supernews.com>
Source record: 67034

Reg Edwards wrote:
> Roy, you have anticipated my thoughts on the subject.
>
> Nevertheless, I will do some calculations.

You should be able to reason the wire-over-ground case as follows:

Imagine a plane wave of 2 V/m intensity striking a 2 m long open circuited dipole in free space. The open circuit voltage should be 4 times as great as it would be for a 1 V/m wave striking a 1 m long dipole. If you bisect the system with a ground plane, you have half the dipole and half the field above ground -- that's a 1 m wire and 1 V/m field. And half the original dipole's voltage appears between the bottom end of the wire and ground. So the resulting voltage is twice what it would be at the center of a 1 m dipole in free space.

> The proof of the pudding lies in the type of computer programs whose
> input data does not depend on unreliabe human imagination about
> antenna gain, mirror images and reflections from the ground.

I have no idea what you're talking about there, but I'm sure that whatever it is, it must not apply to the programs you write.

> I have no access to the learned text books or computer programs.

Sure you do, as does anyone with access to this newsgroup. Texts are readily available by web order for the price of a very few bottles of mediocre wine. Some have even been scanned and posted on the web. And NEC-2 is free and can be downloaded from the web. But some people just can't deal with any idea they didn't come up with on their own -- we call it the NIH (Not Invented Here) syndrome. But each to his own.

Enjoy tonight's Balanis. You can save the Kraus for a special occasion.

Roy Lewallen, W7EL

4138. Re: MFJ-269 Antenna/SWR/RF Analyzer

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 09:27:21 UTC
From: "Saandy , 4Z5KS" <hardware2@ift-int.com>
Message-ID: <1133688441.251640.267710@z14g2000cwz.googlegroups.com>
Source record: 67035

KEEP IT! KEEP IT! KEEP IT!
Don't ever, never unload a piece of test equipment. after 40 years in the field I warn you that you're going to need it BADLY one day after to sell it.
Saandy 4Z5KS

4139. Re: how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 09:41:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p5ef2igc49jcd@corp.supernews.com>
Source record: 67036

Reg Edwards wrote:
> Roy said -
>
>>While a
>>short inductor can be modeled as a lumped load, that doesn't work
>
> well
>
>>in cases like this where the current changes significantly from one
>
> end
>
>>of the coil to the other due to radiation. The coil has to be
>
> modeled as
>
>>a helix.
>>
>
> ======================================
> The non-uniform current does not arise from radiation but from the
> distributed capacitance of the wire turns on the helix to its
> surroundings.

You're correct. I apologize for the error.

> Distributed inductance and capacitance of the helix behave as a short
> transmission line and there is a corresponding phase shift between one
> end and the other in addition to the non-uniform current distribution.
>
> The effects can be estimated by approximate calculations with an
> adequate degree of accuracy but it requires the right type of computer
> program (which probably doesn't exist) to provide exact answers.

Moment method programs such as NEC-2, EZNEC, or even MININEC, do a very
good job.

Roy Lewallen, W7EL

4140. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 14:25:51 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <9mu5p1limi4t4d21ojj28rnrqq74vcmh2j@4ax.com>
Source record: 67038

On Sat, 03 Dec 2005 21:13:36 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>As I mentioned in my earlier posting, most people overestimate their
>ability to make accurate RF measurements. It's not at all trivial. Be
>sure to check your results frequently by measuring known load impedances
>close to the values being measured. How do you find the values of those
>"known" load impedances? Well, welcome to the world of metrology!

Roy, I've seen your postings hereabouts over the years and you've
always struck me as one of the most knowledgeable posters on this,
the most technically-challenging of all hobbies.
I've recently bought a VNA and am going about the laborious process of
setting it up with precisely-cut interconnects to the T/R bridge. Next
thing I need to know is...
Say I have a mica capacitor (for example) that I want to check for its
SRF. How should I mount this component so as to minimize stray L&C
from anything other than the component itself? IOW, what 'platform'
(for want of a better word) do I need to construct to permit accurate
measurements of this cap's RF characteristics in isolation?
Thanks,
Paul
--

"What is now proved was once only imagin'd" - William Blake

4141. Re: how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 15:22:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3RDkf.21818$BZ5.10421@newssvr13.news.prodigy.com>
Source record: 67037

Reg Edwards wrote:
> The non-uniform current does not arise from radiation but from the
> distributed capacitance of the wire turns on the helix to its
> surroundings.

How about the fact that it is a *standing wave antenna* with a
forward traveling wave in one direction and a reverse traveling
wave in the other direction? The net current is the sum of
those two current components and their phasors are rotating
in opposite directions.
--
73, Cecil http://www.qsl.net/w5dxp

4142. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 15:26:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <tUDkf.21819$BZ5.19128@newssvr13.news.prodigy.com>
Source record: 67040

Roy Lewallen wrote:
> But some people just
> can't deal with any idea they didn't come up with on their own ...

You mean like Ptotal = P1 + P2 + 2*SQRT(P1*P2)cos(a) ? :-)
The first time I saw that equation was in Dr. Best's QEX article.
--
73, Cecil http://www.qsl.net/w5dxp

4143. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 15:27:44 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <bb26p1ljpsj3fepb4546bm52ojia33efif@4ax.com>
Source record: 67039
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc.rec.radio.amateur.homebrew

On Sun, 04 Dec 2005 00:45:00 +0100, Paul Burridge
<pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:

>On Sat, 03 Dec 2005 14:50:02 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>>Maybe a mention of the model number would be helpful.
>
>Thanks Wes (and others - I'm building up a picture of what's what from
>your contributions...)
>
>The VNA in question is an HP 8754A made in about 1979.
>
>>My best guess
>>is that the absolute length is not very important as long as all three
>>are the same length.
>
>That would explain a lot.
>
>>The stability of the cable is likely more important than the exact
>>type.
>
>Yup. So I've been given to understand. But is the loss factor relevant
>over just 2 feet at 1300Mhz?

Seriously doubt it.

>BTW, the guy that asked about the impedance of RG8: it *is* 50 ohms as
>far as I can ascertain and if it *were* 52, it surely *would* screw up
>the measurement, IMHE!

Doubt that too.

I can't find any data on this box, but it's likely that the
interconnects are carrying 1) the rf excitation out of the mainframe,
2) a signal from the referance arm of a bridge and 3) the
reflected/transmitted signal.

When calibrated, as I believe I described in another thread, errors
(if any) caused by the interconnects should wash out.

4144. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 15:30:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <GYDkf.21820$BZ5.1129@newssvr13.news.prodigy.com>
Source record: 67041

Roy Lewallen wrote:
> In the process of confirming the 0.5 volt value, I found an error in a
> popular text, Balanis, _Antenna Theory, Analysis and Design_. On p. 61,
> he incorrectly states that the current along a short dipole "can be
> assumed to be constant", which isn't true, ...

You must have the 1st edition. In the second edition Balanis says on page
133 that the current on an infinitesimal dipole can be considered to be
constant. On page 143 he says the current along a small dipole is
triangular shaped.
--
73, Cecil http://www.qsl.net/w5dxp

4145. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 15:40:20 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <bo26p1djh79qd0k9i8s5n29j6vibnlrbc4@4ax.com>
Source record: 67042

On Sat, 03 Dec 2005 17:33:18 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>All,
>
>I am trying to measure antenna impedance. For this I intend to us a directional
>coupler to isolate reflected signal. After using the coupler for a while I
>believe that it introduces a phase shift, that shift seems to be related to
>frequency. This creates a bit of a catch 22. Antenna resonance is defined as the
>frequency where there is no reflected complex component. If the tool to measure
>this is also frequency dependent how can this be accomplished? Is this even the
>best method?

This depends a lot on what instrument you are connecting to this
coupler. If it's nothing more than a power sensor, then you are
making scalar measurements and phase is meaningless.

You would calibrate by placing a short on the measurement (antenna)
port and getting a 100% reflection reference (rho=1). You would
determine the magnitude of the reflection coefficient by ratioing this
to the measured value.

If you have a magnitude and phase sensitive instrument (vector
analyzer) then, as others have answered, you calibrate with additional
reference standards. In any event, the phase shift through the
coupler is compensated for by the calibration process.

>
>Do bi-directional couplers automatically compensate for frequency shift?

No. The provide for a simultaneous sample of the forward and
reflected signals.

4146. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 15:57:55 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43931203.1070205@comcast.net>
Source record: 67043

Wes,

Your answer to the question about bidirectional couplers was they do not compensate for phase shift. Let me ask it again:

Do the measuring ports of a bi-directional coupler accurately represent or preserve the relative phases of the signal?

To put it another way is the phase shift of the driving and reflected signals changed by the same about?

Thanks - Dan kb0qil

Wes Stewart wrote:
> On Sat, 03 Dec 2005 17:33:18 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>All,
>>
>>I am trying to measure antenna impedance. For this I intend to us a directional
>>coupler to isolate reflected signal. After using the coupler for a while I
>>believe that it introduces a phase shift, that shift seems to be related to
>>frequency. This creates a bit of a catch 22. Antenna resonance is defined as the
>>frequency where there is no reflected complex component. If the tool to measure
>>this is also frequency dependent how can this be accomplished? Is this even the
>>best method?
>
>
> This depends a lot on what instrument you are connecting to this
> coupler. If it's nothing more than a power sensor, then you are
> making scalar measurements and phase is meaningless.
>
> You would calibrate by placing a short on the measurement (antenna)
> port and getting a 100% reflection reference (rho=1). You would
> determine the magnitude of the reflection coefficient by ratioing this
> to the measured value.
>
> If you have a magnitude and phase sensitive instrument (vector
> analyzer) then, as others have answered, you calibrate with additional
> reference standards. In any event, the phase shift through the
> coupler is compensated for by the calibration process.
>
>
>>Do bi-directional couplers automatically compensate for frequency shift?
>

>
>
> No. The provide for a simultaneous sample of the forward and
> reflected signals.

4147. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 15:58:34 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4393122A.4040108@comcast.net>
Source record: 67044

Wes,

Your answer to the question about bidirectional couplers was they do not compensate for phase shift. Let me ask it again:

Do the measuring ports of a bi-directional coupler accurately represent or preserve the relative phases of the signal?

To put it another way is the phase shift of the driving and reflected signals changed by the same about?

Thanks - Dan kb0qil

Wes Stewart wrote:
> On Sat, 03 Dec 2005 17:33:18 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>All,
>>
>>I am trying to measure antenna impedance. For this I intend to us a directional
>>coupler to isolate reflected signal. After using the coupler for a while I
>>believe that it introduces a phase shift, that shift seems to be related to
>>frequency. This creates a bit of a catch 22. Antenna resonance is defined as the
>>frequency where there is no reflected complex component. If the tool to measure
>>this is also frequency dependent how can this be accomplished? Is this even the
>>best method?
>
>
> This depends a lot on what instrument you are connecting to this
> coupler. If it's nothing more than a power sensor, then you are
> making scalar measurements and phase is meaningless.
>
> You would calibrate by placing a short on the measurement (antenna)
> port and getting a 100% reflection reference (rho=1). You would
> determine the magnitude of the reflection coefficient by ratioing this
> to the measured value.
>
> If you have a magnitude and phase sensitive instrument (vector
> analyzer) then, as others have answered, you calibrate with additional
> reference standards. In any event, the phase shift through the
> coupler is compensated for by the calibration process.
>
>
>>Do bi-directional couplers automatically compensate for frequency shift?
>

>
>
> No. The provide for a simultaneous sample of the forward and
> reflected signals.

4148. Re: help: antenna inside a box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 16:44:45 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43931CF9.43731F8B@shaw.ca>
Source record: 67045

jinlu8591@yahoo.com wrote:
>
> A RF module was integrated with an application. The whole system
> including the RF module, antenna and application components must be put
> inside a plastic box (per the users' requirement). Unfortunately, the
> application components include a transformer and some other metal
> components, and the box (designed beyond my control) is small, and the
> antenna is very close to these metal comonents inside the plastic box
> (very little room inside the box). I found the RF performance (e.g.
> Tx/Rx distance) is much weaker than if the antenna is farther separated
> from the the other components (for example, let the antenna stick out
> of the box...). Could you make some suggestions or guidelines to deal
> with this situation so that the RF performance is as good as if the
> antenna is stick out of the box ....
>
> Thanks for your help.
>
> Jin

If you were to make the antenna a ground plane or vertical and use a piece of copper clad circuit board as the plane, it might provide a good degree of isolation from the other components below that plane.

Irv
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4149. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 17:17:03 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <jwFkf.222536$zb5.14077@bgtnsc04-news.ops.worldnet.att.net>
Source record: 67046

Richard,

Terman said no such thing, and your interpretation is clearly in error.

Magnetic fields cannot impart ANY energy to charges, such as electrons in a wire. This is because the force from a magnetic field on a charge is always perpendicular to the motion of the charge. No work can be done by the magnetic field, and the energy of the electrons does not change. Only electric fields can provide energy to an electron.

Fortunately, Faraday's Law saves the day. Changing magnetic flux is inextricably intertwined with electromotive force. Terman's comment on page 2 of the 1955 edition simply points out the operation of Faraday's Law. (Yes, I have this volume of Terman.)

Your conclusion statement is completely reversed. The magnetic field does nothing to induce current in the antenna, while the electric field does everything.

Again, however, the laws of physics save the day. Maxwell's equations link electric and magnetic fields in such a manner that the magnetic field you favor creates just enough electric field to drive the electrons in the wire.

As has been stated many times in this newsgroup, it is not possible to filter out one field component or the other. As long as there is some time dependence, i.e., other than purely static fields, both the electric and magnetic fields coexist.

73,
Gene
W4SZ

Richard Harrison wrote:
> Roy Lewallen wrote:
> "You can find the explanation for why this is in any electromagnetic
> text."
>
> I found it in Terman.
>
> As we all know, we place correctly polarized dipoles, for example,
> parallel to the wavefront for maximum response. Terman confirms the
> electric field in this instance induces no energy in the antenna. It all
> comes from the magnetic field.
>
> If antenna current flows, no matter where it comes from, loss resistance
> causes a voltge drop. That`s why the wire needs to be perfect. The

> electric field produces no voltage in the antenna because the wavefront
> has the same voltage across its entire surface. That`s because it all
> left the same point at the same time. So, a wire parallel to the front
> has no difference of potential induced by the wavefront`s electric
> field. It all must come from the mgnetic field.
>
> On page 2 of his 1955 edition, Terman says:
> "The strength of the wave measured in terms of microvolts per meter of
> stress in space is also exactly the same voltage that the MAGNETIC FLUX
> (my emphasis) of the wave induces in a conductor 1 m long when sweeping
> across this conductor with the velocity of light."
>
> From the above, it is seen that the electric field is not effective in
> inducing current in a receiving antenna parallel to a wavefront. All the
> energy intercepted by the antenna is induced by the magnetic field.
>
> Best regards, Richard Harrison, KB5WZI
>

4150. Ferrite rod antenna theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 17:39:39 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <jsKdnVthIOC8tA7eRVn-tg@adelphia.com>
Source record: 67047

I am working through the design of a ferrite core antenna with a necked down center section. I am trying to calculate how much permeability is needed to get most of the available signal out of the antenna, compared to that needed for a cylindrical rod.

I think that for a full cylinder of material to be a lower reluctance path than the same volume of space, the relative permeability just has to be higher than 1. If it is much more, then considerable additional flux will be gathered around the ends of the cylinder (that would not have passed through the cylinder's volume of free space).

If the rod consists of large diameter ends and a thinner central section, then the permeability of the long center section must be higher by the ratio of the (end area)/(center area), for the same assumptions to hold.

For instance, the present design has end diameters of 2.4 inches and a center diameter of 0.5 inches. So the center section needs a permeability (2.4^2)/(.5^2)=23 times higher than would be needed for a solid 2.4 inch diameter cylinder the same overall size to pass about the same flux in a given field.

Is this reasonable?

4151. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 17:41:46 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <uTFkf.234038$ir4.228487@edtnps90>
Source record: 67048

> Your answer to the question about bidirectional couplers was they do not
> compensate for phase shift. Let me ask it again:
>
> Do the measuring ports of a bi-directional coupler accurately represent or
> preserve the relative phases of the signal?
>
> To put it another way is the phase shift of the driving and reflected
> signals changed by the same about?
>
> Thanks - Dan kb0qil

The phases seen at each coupled port should be identical to the phase of the forward and reflected signals. This is easily verifiable, and frequency independant, as follows:

No load -- forward and reverse amplitudes equal, and in phase;
Short circuit at output -- forward and reverse amplitudes equal, and 180 degrees phase difference;
50 ohm load -- reverse < than forward by <= specified coupler directivity, and phase difference can 0< theta < +/ 180.

This is only true if the frequencies are low enough such that the standards do not require quantification by the use of "Standard definitions" -- see www.vnahelp.com.

Regards,

Frank

4152. Re: bidirectional 440 yagi antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 19:15:54 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <r8e6p15ofegopgr6i3oimnp3rhh9342qsl@4ax.com>
Source record: 67049

Great! It sounds like you have it well planned. I was afraid you were
one of those fellows who thought it is a trivial problem.

I have a little experience(old) in ATV on 439 and current experience
in RC.
You have probably already planned for these things but let me share
observations:

All antennas with gain have reduced bandwidth.. a TV signal without
sound requires at least 4mhz without degradation.

All antennas with gain have reduced beam width. A little yaw with
anything resembling a yagi is going to be very noticeable.

It is easier to get gain at the receiving end than the transmitting
end. My 48 element collinear was very wide band and measured 21 db
gain. It is 3X5 feet.

Good luck, John Ferrell W8CCW

PS, AMA insurance specially excludes autonomous flight.

On Sat, 03 Dec 2005 11:00:06 -0600, Chris W <1qazse4@cox.net> wrote:

>John Ferrell wrote:
>
>>A simple dipole will do what you want. That is a lot of power in the
John Ferrell W8CCW

4153. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 19:41:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2ef6p1pbea6kooikh0nl552d29lt4ojm6i@4ax.com>
Source record: 67050

On Sun, 04 Dec 2005 15:25:51 +0100, Paul Burridge
<pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:

>Say I have a mica capacitor (for example) that I want to check for its
>SRF. How should I mount this component so as to minimize stray L&C
>from anything other than the component itself? IOW, what 'platform'
>(for want of a better word) do I need to construct to permit accurate
>measurements of this cap's RF characteristics in isolation?

Hi Paul,

Accuracy and precision is no good unless you can duplicate the test rig to the eventual environment of use. That said, precision capacitors and inductors are three leaded devices. The third lead goes to the shield around them. Obviously for either, a shield changes what would have been the nominal value for the component. However, that change also swamps all the variables that could disturb the accuracy. In other words, the shield enforces a fixed environment that reduces all other stray influences to a minimum.

In so doing, I've been able to measure standard capacitors and inductors out to 9 places. Without those third lead configurations, the same components would easily lose 3, 4, or 5 of those digits.

So one way to mount a mica cap would be over and close to a ground plane that extends beyond its foot print by a significant distance. This proximity would swamp the effects of other components nearby causing a shift in the resonance (if and when they were added, or removed). Building a cage around the capacitor would reduce these effects even further. Of course, all such measures would shift the native resonance, but you are never going to achieve that frequency anyway.

You can, of course, elect to go the other way with a minimal ground proximity. In that case you would use microstrip techniques to build the test rig, making the strip with equal to the width of the component (presumably being surface mount). However, SRF becomes rather meaningless except as a general indicator. This is because changing the board material from alumina to epoxy; or changing from a series to shunt application can shift this frequency by 20% to 40%.

Another issue is with the leads themselves. ESR for caps can easily tally up to a tenth of an Ohm and you have to select your caps on this basis as much as for their inductance. In this regard, you measure the D of the cap (dissipation factor) not Q (although each is the inverse of the other, there are D instruments specifically for this).

This tenth Ohm is NOT necessarily in the wire lead (a common misconception) but rather in all the parallel (or worse, series of the wrapped cap) plate connections. For surface mount caps, you may want to mount them 90ï¿½ (up on edge rather than flat on face) to the board to double the first PRF resonance and reduce the insertion losses there and above.

The short answer to your question is how stable, and how accurate do you want to reproduce the measurement to your application?

73's
Richard Clark, KB7QHC

4154. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 19:41:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%DHkf.31729$tV6.15975@newssvr27.news.prodigy.net>
Source record: 67051

dansawyeror wrote:
> Do the measuring ports of a bi-directional coupler accurately represent
> or preserve the relative phases of the signal?

Let's look at a typical SWR meter sampling circuit. The current is
sampled by a one turn primary on a ferrite toroid. The voltage is
sampled by a tap on the line close to the point at which the toroid
is mounted. At HF frequencies, a wavelength is so long compared to
that configuration that physical sample point errors are usually
considered to be negligible. That obviously changes at UHF+.

No coupler 100% preserves the relative phases. The question is:
What is the accuracy? For any configuration, a worst-case accuracy
can be specified. At 4 MHz, it's not a problem. At 4 GHz, it's a
big problem. At visible light frequencies, most don't even try.
--
73, Cecil http://www.qsl.net/w5dxp

4155. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 19:54:25 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43934971.10703@comcast.net>
Source record: 67052

Frank,

The bi-directional coupler is a machined block about 1 x 3 x 5. The inside is a straight through line, the pickups are simply terminated one loop lines. It is a UHF coupler that works reasonably down to 2 meters. When I configure this to look at the forward and reflected 'open' circuit case they are not in phase. Reflected lags forward by about 40 degrees. (I checked the connection delay and this is not a cable issue.) This is frequency independent. Shorting the output reverses this relationship. The outputs are terminated in 50 Ohms so I conclude it is a 50 Ohm device. When I terminate the device in 50 Ohms the forward and reflected outputs are out of phase by about 140 degrees.

What is the significance a non frequency dependent phase shift between forward and reflected? This shift is frequency independent.

Thanks - Dan kb0qil

Frank wrote:
>>Your answer to the question about bidirectional couplers was they do not
>>compensate for phase shift. Let me ask it again:
>>
>>Do the measuring ports of a bi-directional coupler accurately represent or
>>preserve the relative phases of the signal?
>>
>>To put it another way is the phase shift of the driving and reflected
>>signals changed by the same about?
>>
>>Thanks - Dan kb0qil
>
>
> The phases seen at each coupled port should be identical to the phase of the
> forward and reflected signals. This is easily verifiable, and frequency
> independant, as follows:
>
> No load -- forward and reverse amplitudes equal, and in phase;
> Short circuit at output -- forward and reverse amplitudes equal, and 180
> degrees phase difference;
> 50 ohm load -- reverse < than forward by <= specified coupler directivity,
> and phase difference can 0< theta < +/ 180.
>
> This is only true if the frequencies are low enough such that the standards
> do not require quantification by the use of "Standard definitions" -- see
> www.vnahelp.com.
>
>

> Regards,
>
> Frank
>
>
>

4156. Re: help: antenna inside a box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 20:02:42 UTC
From: jinlu8591@yahoo.com
Message-ID: <1133725796.932656.72570@g43g2000cwa.googlegroups.com>
Source record: 67053

Thanks, Irv,

Could you elaberate a liitle bit "make the antenna a ground plane or
vertical and use a piece of copper clad circuit board as the plane" ?
Do you mean to have a piece of copper clad board separete (or inserted
between) the antenna and the other component? Or make the antenna
out of ..... ?
I will read your home pages as well.

Thanks.
Jin

4157. Re: help: antenna inside a box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-04 22:10:30 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43936957.39F182CE@shaw.ca>
Source record: 67054

jinlu8591@yahoo.com wrote:
>
> Thanks, Irv,
>
> Could you elaberate a liitle bit "make the antenna a ground plane or
> vertical and use a piece of copper clad circuit board as the plane" ?
> Do you mean to have a piece of copper clad board separete (or inserted
> between) the antenna and the other component? Or make the antenna
> out of ..... ?
> I will read your home pages as well.
>
> Thanks.
> Jin

What I suggested is to use the copper separation between the antenna and
the other components where it can act as a shield, and to integrate the copper
as part of the antenna -- i.e. it becomes the ground plane for a vertical element which
is your radiator.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4158. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 01:08:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p74on4t8pevba@corp.supernews.com>
Source record: 67055

Paul Burridge wrote:
> On Sat, 03 Dec 2005 21:13:36 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>As I mentioned in my earlier posting, most people overestimate their
>>ability to make accurate RF measurements. It's not at all trivial. Be
>>sure to check your results frequently by measuring known load impedances
>>close to the values being measured. How do you find the values of those
>>"known" load impedances? Well, welcome to the world of metrology!
>
>
> Roy, I've seen your postings hereabouts over the years and you've
> always struck me as one of the most knowledgeable posters on this,
> *the* most technically-challenging of all hobbies.

Thanks for your vote of confidence. But on the topic of network analyzer measurements, I gladly defer to Wes Stewart, Tom Bruhns, and other posters who have spent much more time making real-life measurements with them than I have. I've used them from time to time, and for some really challenging measurements, but not by any means as much as those folks have.

> I've recently bought a VNA and am going about the laborious process of
> setting it up with precisely-cut interconnects to the T/R bridge. Next
> thing I need to know is...
> Say I have a mica capacitor (for example) that I want to check for its
> SRF. How should I mount this component so as to minimize stray L&C
> from anything other than the component itself? IOW, what 'platform'
> (for want of a better word) do I need to construct to permit accurate
> measurements of this cap's RF characteristics in isolation?

In general, you minimize stray inductance by keeping leads short, and capacitance by keeping conductors apart. The ideal setup is a coaxial environment right up to the DUT, but even that is subject to coupling around the DUT, both from one terminal to the other and from each terminal to ground. If possible, the best plan is to calibrate out the strays. That's a science and art in itself, and I'll have to yield to people with more experience than mine for practical information about how best to do this.

The effect of the strays depends heavily on what you're measuring. For example, if you're measuring a low impedance, you can get by with more shunt C than if you're measuring a high impedance. If you're measuring a high impedance, you can tolerate more series inductance than when measuring a low impedance. So when you inevitably find that you have to

make tradeoffs in designing a fixture, the trades you make will depend on what you expect to measure.

Roy Lewallen, W7EL

4159. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 01:57:32 UTC
From: Ivan Makarov <miv@hotmail.com>
Message-ID: <2a6dnWPWjpbjAw7eRVn-vw@rogers.com>
Source record: 67056

Dan,

your original posting says the shift you are getting is frequency dependent.
Your last posting says it is not. Which one I read wrong?

Thks
Ivan

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:43934971.10703@comcast.net...
> Frank,
>
> The bi-directional coupler is a machined block about 1 x 3 x 5. The inside
is a
> straight through line, the pickups are simply terminated one loop lines.
It is a
> UHF coupler that works reasonably down to 2 meters. When I configure this
to
> look at the forward and reflected 'open' circuit case they are not in
phase.
> Reflected lags forward by about 40 degrees. (I checked the connection
delay and
> this is not a cable issue.) This is frequency independent. Shorting the
output
> reverses this relationship. The outputs are terminated in 50 Ohms so I
conclude
> it is a 50 Ohm device. When I terminate the device in 50 Ohms the forward
and
> reflected outputs are out of phase by about 140 degrees.
>
> What is the significance a non frequency dependent phase shift between
forward
> and reflected? This shift is frequency independent.
>
> Thanks - Dan kb0qil
>
>
> Frank wrote:
> >>Your answer to the question about bidirectional couplers was they do not
> >>compensate for phase shift. Let me ask it again:
> >>
> >>Do the measuring ports of a bi-directional coupler accurately represent
or
> >>preserve the relative phases of the signal?
> >>

> >>To put it another way is the phase shift of the driving and reflected
> >>signals changed by the same about?
> >>
> >>Thanks - Dan kb0qil
> >
> >
> > The phases seen at each coupled port should be identical to the phase of
the
> > forward and reflected signals. This is easily verifiable, and frequency
> > independant, as follows:
> >
> > No load -- forward and reverse amplitudes equal, and in phase;
> > Short circuit at output -- forward and reverse amplitudes equal, and 180
> > degrees phase difference;
> > 50 ohm load -- reverse < than forward by <= specified coupler
directivity,
> > and phase difference can 0< theta < +/ 180.
> >
> > This is only true if the frequencies are low enough such that the
standards
> > do not require quantification by the use of "Standard definitions" --
see
> > www.vnahelp.com.
> >
> >
> > Regards,
> >
> > Frank
> >
> >
> >

4160. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 02:12:16 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4393A200.6030409@comcast.net>
Source record: 67057

The posts refer to two different couplers, the first posting is in reference to a Mini-circuits ZFDC-1-3. The last posting is in reference to a bi-directional coupler as described. At this point the objective is to 'learn' as much as possible about the operation of couplers.

Ivan Makarov wrote:
> Dan,
>
> your original posting says the shift you are getting is frequency dependent.
> Your last posting says it is not. Which one I read wrong?
>
> Thks
> Ivan
>
> "dansawyeror" <dansawyeror@comcast.net> wrote in message
> news:43934971.10703@comcast.net...
>
>>Frank,
>>
>>The bi-directional coupler is a machined block about 1 x 3 x 5. The inside
>
> is a
>
>>straight through line, the pickups are simply terminated one loop lines.
>
> It is a
>
>>UHF coupler that works reasonably down to 2 meters. When I configure this
>
> to
>
>>look at the forward and reflected 'open' circuit case they are not in
>
> phase.
>
>>Reflected lags forward by about 40 degrees. (I checked the connection
>
> delay and
>
>>this is not a cable issue.) This is frequency independent. Shorting the
>
> output
>
>>reverses this relationship. The outputs are terminated in 50 Ohms so I

>
> conclude
>
>>it is a 50 Ohm device. When I terminate the device in 50 Ohms the forward
>
> and
>
>>reflected outputs are out of phase by about 140 degrees.
>>
>>What is the significance a non frequency dependent phase shift between
>
> forward
>
>>and reflected? This shift is frequency independent.
>>
>>Thanks - Dan kb0qil
>>
>>
>>Frank wrote:
>>
>>>>Your answer to the question about bidirectional couplers was they do not
>>>>compensate for phase shift. Let me ask it again:
>>>>
>>>>Do the measuring ports of a bi-directional coupler accurately represent
>
> or
>
>>>>preserve the relative phases of the signal?
>>>>
>>>>To put it another way is the phase shift of the driving and reflected
>>>>signals changed by the same about?
>>>>
>>>>Thanks - Dan kb0qil
>>>
>>>
>>>The phases seen at each coupled port should be identical to the phase of
>
> the
>
>>>forward and reflected signals. This is easily verifiable, and frequency
>>>independant, as follows:
>>>
>>>No load -- forward and reverse amplitudes equal, and in phase;
>>>Short circuit at output -- forward and reverse amplitudes equal, and 180
>>>degrees phase difference;
>>>50 ohm load -- reverse < than forward by <= specified coupler
>
> directivity,
>
>>>and phase difference can 0< theta < +/ 180.

>>>
>>>This is only true if the frequencies are low enough such that the
>
> standards
>
>>>do not require quantification by the use of "Standard definitions" --
>
> see
>
>>>www.vnahelp.com.
>>>
>>>
>>>Regards,
>>>
>>>Frank
>>>
>>>
>>>
>
>
>

4161. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 02:37:47 UTC
From: "Wayne P. Muckleroy" <wmuckleroy2@neo.rr.com>
Message-ID: <%JNkf.12425$lh.1687@tornado.ohiordc.rr.com>
Source record: 67058
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Did you also receive a calibration kit with the VNA? If you did so, then the lengths of these interconnect cables are not crucial for calibrated measurements. Only uncalibrated measurements will be affected.

It would help to know the manufacturer and model of the VNA.

Wayne
(KC8UIO)
"Paul Burridge" <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote in message news:1bh3p11kcftnc9rtrhfihqc7r2olhe2oqj@4ax.com...
> Hello guys,
>
> I recently picked up an old vector network analyser in working order
> but minus the 3 interconnects between it and the
> transmission/reflection bridge. These are specified in the manual to
> be exactly 24" long, 50 ohms and terminated by N-type plugs.
> I've been told the length of these patch leads is quite critical to
> getting accurate measurements with this VNA, but am at a loss to work
> out why 24" is specified when the frequency range of this device is
> 4Mhz to 1300Mhz. If it were only capable of measuring at one fixed
> frequency, I could understand the need for a specifically cut length
> of some fraction of a wavelength.
> Can anyone explain the relevance of 24" in this context?
> Also, will *any* 50 ohm coax suffice for this purpose or has it got to
> be something special?
> Thanks,
> P.
> --
>
> "What is now proved was once only imagin'd" - William Blake

4162. What is a duplexer, diplexer and combiner?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 02:50:30 UTC
From: crb <anon@net.com>
Message-ID: <dn09hk02r2p@enews1.newsguy.com>
Source record: 67059

What are the functions of each of these?

Are they used on TX or RX circuits?

I know a cell site uses a duplexer so that it
has an extra RX antenna for diversity. How
does this work? Is the duplexer on the antenna
that transmit/receive combo antenna notching
out the TX frequency so the receiver doesn't get
overloaded by it?

4163. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 03:23:00 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ooOkf.26645$dO2.23979@newssvr29.news.prodigy.net>
Source record: 67060

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> But some people just can't deal with any idea they didn't come up with
>> on their own ...
>
>
> You mean like Ptotal = P1 + P2 + 2*SQRT(P1*P2)cos(a) ? :-)
> The first time I saw that equation was in Dr. Best's QEX article.

Yes, and you didn't believe it when you saw it.
73,
Tom Donaly, KA6RUH

4164. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 05:09:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7YPkf.26664$dO2.972@newssvr29.news.prodigy.net>
Source record: 67061

Tom Donaly wrote:
> Cecil Moore wrote:
>> You mean like Ptotal = P1 + P2 + 2*SQRT(P1*P2)cos(a) ? :-)
>> The first time I saw that equation was in Dr. Best's QEX article.
>
> Yes, and you didn't believe it when you saw it.

Your memory is slightly faulty. What I objected to was Dr. Best's assertion that 75w + 8.33w = 133.33w. It still doesn't, never did, never will, and violates the conservation of energy principle. What Dr. Best apparently failed to realize is that the extra 50 watts of energy required to balance that energy equation does NOT come from waves P1 and P2 but instead comes from wave cancellation of waves P3 and P4 on the source side of the match point. Wave P1 contains 75 watts and Wave P2 contains 8.33 watts. Without a source of constructive interference energy, they cannot add up to 133.33 watts. That source is destructive interference energy, -2*SQRT(P3*P4), from the source side of the match point which supplies the +2*SQRT(P1*P2) constructive interference energy to the load side of the match point where (P1*P2)=(P3*P4). At an impedance discontinuity in a transmission line, far away from any source, all constructive interference energy must necessarily be balanced by an equal magnitude of destructive interference energy in order to satisfy the conservation of energy principle.

This is all explained in my "WorldRadio", Oct./Dec. 2005 articles. Unfortunately, most of the Greek letter Thetas didn't make it through the conversion process and wound up as underline marks. Part I is already on my web page under "The Rest of the Story" along with a couple of remarks about forward power, reflected power, superposition, and interference. Part II will appear on my web page after Christmas.
--
73, Cecil http://www.qsl.net/w5dxp

4165. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 08:37:17 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1133771837.159058.96930@g44g2000cwa.googlegroups.com>
Source record: 67062

eternalsquire@comcast.net wrote:

> 3) If I run up a metal pipe to 20 foot and then an insulated wire from
> the dirt to the top alongside the pipe as my radiator, what effect will
> the pipe have on the radiating wire?
>

*Install the pipe.

*Build a 16-17 foot tapered radiator made from telescoping lengths of
6061-T6 aluminum tubing. See the Texas Towers site for the tubing.
E-mail me about doing the design of the radiator, I'm equipped to do
the FEA stress analysis.

*Build an aluminum adapter plate to attach the radiator to the pipe.
See any "how to" type ham antenna book which includes the construction
of yagis. Use a pair of stainless steel u-bolts to attach the adapter
plate to the pipe. Use a pair of insulated clamps to attach the
radiator to the adapter plate. These are available from DXengineering.

http://www.dxengineering.com/Sections.asp?ID=1&DeptID=21#Top

*Run ONE 16-17 foot wire to the the adapter plate but do not ground it.
Instead attach it the braid of the coax. Attach the radiator to the
center conductor of the coax. Pull the "radial wire" as far away from
the trailer as possible in some direction or another.

This arrangement would give you a "sorta" inverted L or vertical dipole
type antenna instead of a ground plane.

> Thanks again,
>
> The Eternal Squire

w3rv

4166. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 14:08:30 UTC
From: richardharrison@webtv.net
Message-ID: <7977-439449DE-2039@storefull-3255.bay.webtv.net>
Source record: 67063

Asimov wrote:
"An antenna is just a stationary probe in a moving E-field."

Along some path in space there is an electric current which is changing. It is growing or it is shrinking. It is not constant..

This current as a result of its changes radiates electric and magnetic flux. The electric flux lines are are perpendicular to the current path. The magnetic flux lines encircle the current path. The flux is moving away from the current path at the speed of light. At a distant point these electric and magnetic flux lines arrive because they sustain each other during their long trip.

There is an initial wavefront. It started as a spherical wavefront but has traveled so far that for practical purposes it is now a plane wave. In the wavefront there is an electric force which would attract or repel electrons but it has the same strength everywhere over the arriving wavefront. Therefore, wlectrons in a wire parallel to the wavefront are not moved along its length by the electric force. This force would only tend to move electrons from one side of the wire`s diameter to the other side of the same diameter. Our interest is in current along the length of the wire.

However, the magnetic lines of force are sweping at the speed of light across the wire which parallels the wavefront. If the wire also parallels the direction of the current which generated the lux (is correctly polarized), it will experience a voltage induced all along its length. This induction is totally a result of the magnetic field.

Best regards, Richard Harrison, KB5WZI

4167. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 15:05:09 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43945725.90903@comcast.net>
Source record: 67064

There are some serious errors in this explanation.

1. The source is not an "electric current which is changing". There is an EM field made up of photons. There are two theories describing this, one is a wave theory and the other is a particle theory. Neither one completely enplains the phenomenon.

2. There is no current and therefore there is no "current path".

3. The E and H aspects behave similarly, both are changing. The E domain is no different in that respect then the H domain. The E portion of this particle/wave phenomenon is as capable of transforming into a useful signal in the antenna the H portion is.

Antennas can be either E devices or H devices. E devices respond to the electric dimension and create a signal while H devices respond to the magnetic dimension and create a signal.

Dan

Richard Harrison wrote:
> Asimov wrote:
> "An antenna is just a stationary probe in a moving E-field."
>
> Along some path in space there is an electric current which is changing.
> It is growing or it is shrinking. It is not constant..
>
> This current as a result of its changes radiates electric and magnetic
> flux. The electric flux lines are are perpendicular to the current path.
> The magnetic flux lines encircle the current path. The flux is moving
> away from the current path at the speed of light. At a distant point
> these electric and magnetic flux lines arrive because they sustain each
> other during their long trip.
>
> There is an initial wavefront. It started as a spherical wavefront but
> has traveled so far that for practical purposes it is now a plane wave.
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> not moved along its length by the electric force. This force would only
> tend to move electrons from one side of the wire`s diameter to the other
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>
> However, the magnetic lines of force are sweping at the speed of light
> across the wire which parallels the wavefront. If the wire also

> parallels the direction of the current which generated the lux (is
> correctly polarized), it will experience a voltage induced all along its
> length. This induction is totally a result of the magnetic field.
>
> Best regards, Richard Harrison, KB5WZI
>

4168. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 16:38:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s4r8p1p8097s9o4tcm4tc641c3fu7d5dp7@4ax.com>
Source record: 67065

On Mon, 05 Dec 2005 07:05:09 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Antennas can be either E devices or H devices.

Hi Dan,

Only at D.C. and then it mocks the sense of what an antenna should be.

73's
Richard Clark, KB7QHC

4169. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 17:11:06 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_4394674f@fidonet.org>
Source record: 67066

"Richard Harrison" bravely wrote to "All" (05 Dec 05 08:08:30)
--- on the heady topic of "Re: Antenna reception theory"

RH> From: richardharrison@webtv.net (Richard Harrison)
RH> Xref: core-easynews rec.radio.amateur.antenna:220833
[,,,]
RH> There is an initial wavefront. It started as a spherical wavefront but
RH> has traveled so far that for practical purposes it is now a plane
RH> wave. In the wavefront there is an electric force which would attract
RH> or repel electrons but it has the same strength everywhere over the
RH> arriving wavefront. Therefore, wlectrons in a wire parallel to the
RH> wavefront are not moved along its length by the electric force. This
RH> force would only tend to move electrons from one side of the wire`s
RH> diameter to the other side of the same diameter. Our interest is in
RH> current along the length of the wire.
[,,,]

There is a time varying voltage gradient in the E field too. Turn the
wire around 90" then to find the E gradient. If the wire length is
such that one end is positive while the other end is negative then
charges will flow inbetween both ends.

Anti-static spray won't work on an antenna.

A*s*i*m*o*v

... My wife and I always hold hands. If I let go, she shops.

4170. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 18:18:50 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dn20a7$i4m$1@news.service.uci.edu>
Source record: 67067

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>> You mean like Ptotal = P1 + P2 + 2*SQRT(P1*P2)cos(a) ? :-)
>>> The first time I saw that equation was in Dr. Best's QEX article.
>>
>>
>> Yes, and you didn't believe it when you saw it.

> Wave P1 contains 75 watts and Wave P2 contains 8.33 watts.
> Without a source of constructive interference energy, they cannot
> add up to 133.33 watts.

And obviously he still doesn't believe it, Gene.

73, ac6xg

4171. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 18:39:26 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <au19p1dlqrr1ea05udjl0pj7035mjkqgir@4ax.com>
Source record: 67068

On Sun, 04 Dec 2005 07:57:55 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Wes,
>
>Your answer to the question about bidirectional couplers was they do not
>compensate for phase shift. Let me ask it again:
>
>Do the measuring ports of a bi-directional coupler accurately represent or
>preserve the relative phases of the signal?
>
>To put it another way is the phase shift of the driving and reflected signals
>changed by the same about?
>
>Thanks - Dan kb0qil

I'm not sure I understand the question(s) but in the case of a vector
reflectometer using a dual directional coupler maybe this will help.

Here is a dual directional coupler.

```
Reverse Forward
| |
| |
|----------R R ---------|
X X
Input --A----------------------B--C Load
```

Let's say that at frequency, F, the coupling factor (X) is -10 dB with
no phase shift between point B and the forward port and between point
A and the reverse port to keep it simple.

So a wave propagating in the forward direction (Input --> Load)
induces a signal at the forward port that is 10 dB below the input at
0 degrees phase with respect to point B. A wave propagating in the
opposite direction has the same relationship at the reverse port; 10
dB down and 0 degrees phase with respect to point A.

A to Reverse and B to Forward -might- track reasonably well in both
magnitude and phase, but in this case, it's immaterial.

Because B-A and C-B > 0 there will be a frequency dependent phase
difference between A, B and C.

When we calibrate using a short on the load port here's what happens.

The signal at the forward port becomes the reference, i.e., unity amplitude and 0 degrees phase.

The short creates a 100% reflection and -180 degree phase shift. This signal propagates back down the main line to the source, which is assumed to be a perfect match, so there is no re-reflection. A -10 dB sample (by definition: unity) is coupled to the reverse port, with a phase shift, theta(F), determined by the electrical length of the line C -> B -> A.

Unless we are lucky enough to be Lotto winners, the signal at the reflected port -will not- be 1 @ ang-180 deg. So our calibration routine must do whatever math is necessary to make the ratio B/A = 1 @ ang-180. This fudge factor is then applied to all subsequent measurements to "correct" the data.

Now to address (I think) your question. If we change frequencies, theta(F) changes and the fudge factor no longer corrects for it. While the coupling factors might track, it is of little consolation because the calibration is good only at the frequency where it was performed. Automatic network analyzers perform calibration at each test frequency, or at least enough points to interpolate between.

4172. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 18:40:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9Q%kf.31869$tV6.11428@newssvr27.news.prodigy.net>
Source record: 67069

Jim Kelley wrote:
>> Wave P1 contains 75 watts and Wave P2 contains 8.33 watts.
>> Without a source of constructive interference energy, they cannot
>> add up to 133.33 watts.
>
> And obviously he still doesn't believe it, Gene.

Without the 2*SQRT(P1*P2)=50w constructive interference energy,
75w + 8.33w will *NEVER* add up to 133.33 watts. Dr. Best's
equation, 75w + 8.33w = 133.33w, is superposition of powers
which is not allowed AND a violation of the conservation of
energy principle. You don't really support superposition of
powers and violations of conservation of energy, do you?.

If you furnish exactly 75 watts and your neighbor furnishes
exactly 8.33 watts, can you power a 133.33 watt device?
--
73, Cecil http://www.qsl.net/w5dxp

4173. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 18:53:54 UTC
From: richardharrison@webtv.net
Message-ID: <9080-43948CC2-1862@storefull-3252.bay.webtv.net>
Source record: 67071

Gene, W4SZ wrote:
"Terman`s comment on page 2 of the 1955 edition simply points out the operation of Faraday`s Law."

Faraday`s law says that, while the magnetic flux linked with a closed path loop or coil is changing, the closed path is the source of an electromotive force (voltage) whose magnitude depends only upon the rate of change of the flux through the path.

If we cause an antenna to be surrounded by an altrernating magnetic field, a voltage will be induced in the antenna in accordance with Faraday`s law, This induced voltage is necessary and sufficient to account for all of the energy received by the antenna.

Best regards, Richard Harrison, KB5WZI

4174. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 18:54:52 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <020lf.125287$qk4.90216@bgtnsc05-news.ops.worldnet.att.net>
Source record: 67070

Hi Jim,

I was going to try to stay out of this recurring silliness, but since you accidentally pulled me in I will add my spin.

The only mistake made by Steve Best was allowing himself to get dragged by Cecil into the intellectual landfill. Yes, most people with rudimentary arithmetic skills would agree that 75 plus 8.33 does not equal 133.33.

However, anyone even remotely familiar with waves would readily understand that the component waves Cecil loves to talk about are merely mathematical conveniences. It is entire possible to set up other model configurations, such as a combination of a one traveling wave and one standing wave.

In order to make his model work, Cecil needs to invoke the mythical P3 and P4 on the source side of the reflection discontinuity. He never gets around to explaining how these two waves, which exactly cancel at all points in space and at all times, can contain any energy at all.

The reason that most practitioners of wave models solve for the fields first and then worry about power or energy is:

a - This procedure works correctly all the time.

b - It avoids the problems created by analyzing fictitious extra components added for mathematical convenience but containing no physical reality.

I do not expect to change Cecil's mind. Other than his own potential embarrassment from the silly publications in World Radio, his folly is harmless.

73,
Gene
W4SZ

Jim Kelley wrote:
>
>
> Cecil Moore wrote:
>
>> Tom Donaly wrote:
>>
>>> Cecil Moore wrote:
>>>

>>>> You mean like Ptotal = P1 + P2 + 2*SQRT(P1*P2)cos(a) ? :-)
>>>> The first time I saw that equation was in Dr. Best's QEX article.
>>>
>>>
>>>
>>> Yes, and you didn't believe it when you saw it.
>
>
>> Wave P1 contains 75 watts and Wave P2 contains 8.33 watts.
>> Without a source of constructive interference energy, they cannot
>> add up to 133.33 watts.
>
>
> And obviously he still doesn't believe it, Gene.
>
> 73, ac6xg
>

4175. Re: What is a duplexer, diplexer and combiner?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 19:09:42 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn239maoj1@engnntp2.cig.mot.com>
Source record: 67075

"crb" <anon@net.com> wrote in message news:dn09hk02r2p@enews1.newsguy.com...
> What are the functions of each of these?
>
> Are they used on TX or RX circuits?
>
> I know a cell site uses a duplexer so that it
> has an extra RX antenna for diversity. How
> does this work? Is the duplexer on the antenna
> that transmit/receive combo antenna notching
> out the TX frequency so the receiver doesn't get
> overloaded by it?

Crb,

These are basically filters. The terminology varies sometimes
for "diplexer" and "duplexer", and they are both used to describe the same
or different things. I'll give the way they are used in my field - two-way
radio and cell phone systems.

Duplexer:

When we transmit and receive at the same time, this is called duplex
operation.

A duplexer is designed to allow a transmitter and receiver (operating at
slightly differing frequencies) to use the one antenna at the same time.
There are several things that must be taken care of in this situation.

1 - The transmitter energy must be kept away from the receiver or it will
burn things up.

2 - The transmitter signal can still cause trouble if it is not lowered a
lot more than this "blow-up" level. The undesirable effects are commonly
intermodulation (mixing of the transmit signal with near-by transmitters
which then causes signals which interferes with other receivers) and
spurious responses (mixing of the transmitter signal with more distant
transmitters which cause signals that interfere with this receiver).

3 - Transmitters also put out noise as you move away from the carrier and
this must be reduced to where it does not cover up the desired signal in the
receiver.

As you probably understand, the difference between the
transmitted power and the received signal strength is very great and
typically around 170 to 190 dB.

To get #1 and #2, a filter is placed in the receive line which passes the received frequency with little loss, but attenuates the transmitter power to a level which keeps the IM products to an acceptable level. To get #3, a filter is placed in the transmitter line which passes the transmit frequency with little loss, but attenuates the noise (and any other spurious which may be there) which the transmitter is producing on the receive frequency. These filters can be band-pass or band-reject (notch) filters.

Diplexer / Combiner:

These two terms usually refer to devices that allow two transmitters to use one antenna at the same time. However, the term "diplexer" and "duplexer" are used differently in some circles. There are several ways to do this.

The term "Combiner" is most common in cellular telephone systems, the term "diplexer" is more common in the military.

Combiner:

One method (used in cellular transmitters) uses narrow band filters (commonly called cavities). One filter is on the output of each transmitter and, obviously tuned to that transmitter's frequency. Then, to allow these to be all connected at one point so one antenna can be used, transmission lines are used in a special way. These lines are made special lengths such that the following happens.

We will consider only two transmitters on two different frequencies here "A" and "B".

We look at the junction point where the two filter lines connect to go to the antenna.

At frequency "A", the transmission line from filter "B", transforms (rotates around the Smith chart) the impedance of filter "B" such that it is a very high impedance at the junction point. This high impedance across the 50 ohm transmission line accepts little power and therefore disturbs things very little. This means that the power from transmitter "A" only goes to the antenna and not back into transmitter "B".

For transmitter "B" just switch the A's and B's in the above.

The logical extension of this is for multi transmitter systems where the transmission lines are made such that all filter / transmission line combinations, other than the one frequency going through, appear as a high impedance at the junction.

Systems use this technique to connect as many as 20 transmitters to one antenna and the frequencies are quite close together - in the same band.

This is a narrow band system and must be re-tuned if the transmit frequencies change.

The further apart the frequencies are, the easier it is to make this device. With widely differing frequencies such as 144 MHz and 450 MHz, this

can be done with simple low pass and high pass filters.

Diplexer:

Again I remind you that some use the term "diplexer" and some use the term "duplexer".

I believe diplexers are commonly band-pass filters. Using band-pass filters, we can allow the transmitters to move around a bit. I have seen things called diplexers used where the transmitters are in different bands (like 150 MHz and 450 MHz.). There must be the same consideration that I describe above for the impedance at the junction end of the transmission lines coming from the filters where they connect to the common junction point.

Finally, because these are filters, they can be used in receive as well as transmit lines. With a two way radio that operates in two bands but only uses one connector - say 144 MHz and 450 MHz. you can use these devices to connect two antennas to the radio, one antenna for 144 MHz and one for 450 Hz.

You can also connect two radios, one operating at 144 MHz and one at 450 MHz to an antenna that operates on either band.

You can also connect these two radios to a common feed line with a diplexer and then use another diplexer (facing the "other way") to feed two separate antennas for the two frequencies.

In the diversity situation you mention, the duplexer saves one antenna that would be needed for transmit by using one of the receive antennas for both receiving and transmitting (duplex). Some systems don't use a duplexer here and do have three antennas. Two for dual diversity receive and one for transmit. You may be able to see this as three vertical bars (antennas) on each side of the triangular top of some cell towers.

Hope this helps.

73, Steve, K,9.D;C'I

4176. dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 19:10:57 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <%e0lf.43999$i7.18434@bignews2.bellsouth.net>
Source record: 67072

Some questions about a 140' dipole fed with ladderline from an unbalanced tuner to work 160-10m:

1. Does it matter if the balun is placed on the tuner output, or at the dipole center feedpoint?

2. Which type of balun (voltage/current) would be best for centerfeedpoint
use?

4. What ratio balun would be optimal for either application?

4177. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 19:32:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <fB0lf.27219$D13.241@newssvr11.news.prodigy.com>
Source record: 67073

RB wrote:
> Some questions about a 140' dipole fed with ladderline from an unbalanced
> tuner to work 160-10m:
>
> 1. Does it matter if the balun is placed on the tuner output, or at the
> dipole center feedpoint?

A balun placed at the dipole center feedpoint has BALanced
ladder-line on one side and the BALanced dipole on the other,
both of which are balanced. So why on earth would anyone attempt
to install a BALanced to UNbalanced device at a point where only
balanced environments exist?

> 2. Which type of balun (voltage/current) would be best for
> centerfeedpoint
> use?

What you need is a BALBAL. Good luck on finding one at a decent
price that works with the impedances you will encounter.

> 4. What ratio balun would be optimal for either application?

A Balun should only be installed at a BALanced to UNbalanced
discontinuity. Forget about trying to install them anywhere
else. Most hams who understand what they are doing use a 1:1
choke-balun at the BALanced to UNbalanced point. Take a look
at my 130 ft. all-HF-band dipole (click below)
--
73, Cecil http://www.qsl.net/w5dxp/notuner.htm

4178. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 19:38:44 UTC
From: richardharrison@webtv.net
Message-ID: <25147-43949744-445@storefull-3258.bay.webtv.net>
Source record: 67074

Gene, W4SZ write:
"As has been said many times on this newsgroup, it is not possible to filter out one field component or the other."

Saying it does not make it so.

Countless Faraday screens are at work removing the E-field component from electromagnetic waves. Faraday said that the voltage in a coupled circuit depends only on the rate of change of the magnetic flux through the circuit. He was refering to induced voltage. It was 1831 when Michael Faraday observed the interaction between primary and secondary coils in what was likely the world`s first transformer. Faraday made it himself and noted that the needle of a galvanometer connected across one coil deflected briefly whenever he connected or disconnected a battery across the other coil.

4179. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 19:58:02 UTC
From: richardharrison@webtv.net
Message-ID: <25147-43949BCA-447@storefull-3258.bay.webtv.net>
Source record: 66977

it is just as easy to remove the H-field from the wave as it is to
remove the E-field with a Faraday screen.

To remove the H-field, one sure way is to completely enclose two coils
so they are completely shielded from each other and all electromagnetic
waves. Put the coils in separate metal cans. Put a tiny hole in each
can. Conect one termial of each coil to its end of a coupling capcitor.
Ground the other terminal of each coil.. Ground is the return path for
the coils but it must run on the surfaces of the cans and through the
tiny holes due to skin effect.
Complete shielding removes the H-field as a coupling agent. Only E-field
coupling is provided via the coupling capacitor.

Best regards, Richard Harrison, KB5WZI

4180. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 20:02:03 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <__0lf.44003$i7.4483@bignews2.bellsouth.net>
Source record: 66976

Oooopss----I meant coax fed.

4181. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 20:02:50 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dn26d7$l2h$1@news.service.uci.edu>
Source record: 66979

Cecil Moore wrote:

> Jim Kelley wrote:
>
>>> Wave P1 contains 75 watts and Wave P2 contains 8.33 watts.
>>> Without a source of constructive interference energy, they cannot
>>> add up to 133.33 watts.
>>
>>
>> And obviously he still doesn't believe it, Gene.

I should have said Tom. If I were Cecil I'd have blamed the error on my glasses or my advanced age. ;-)

> You don't really support superposition of
> powers and violations of conservation of energy, do you?.

Depending on how high you keep your squelch set, you should already pretty well know what I think about those things.

You're at least partially right though. Power does not superpose (because, for among other reasons, it doesn't move or propagate). The point you continue to miss is that power does not interfere either. Nor is it valid to take the square root of the product of two power numbers and claim that it turns around miraculously and goes the other direction. But that's what you've miguidedly presented to the readers of World Radio as fact. The irradiance equations are nevertheless correct because power goes as the square of the fields - which do of course superpose and interfere. The equations accurately describe the effect - the end result, the outcome, not necessarily the cause or the mechanism by which the result is achieved.

Before we go any further (and it is my sincerest hope that we do not), I agree with Melles-Griot, Born and Wolf, Hecht, Jackson, and the other E&M and optics books. What I disagree with (and I'm sure given the opportunity so would the above mentioned authors) is some of your interpretation of the physical phenomenon they describe.

73, ac6xg

4182. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 20:09:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <E71lf.29171$q%.16142@newssvr12.news.prodigy.com>
Source record: 66978

Gene Fuller wrote:
> Yes, most people with
> rudimentary arithmetic skills would agree that 75 plus 8.33 does not
> equal 133.33.

Too bad Dr. Best posted the equation: "Ptotal = 75w + 8.33w = 133.33w"
on this newsgroup (and, thank goodness, left it out of his article) so
he obviously disagreed with you at the time. He also said that interference
had nothing to do with it.

> However, anyone even remotely familiar with waves would readily
> understand that the component waves Cecil loves to talk about are merely
> mathematical conveniences. It is entire possible to set up other model
> configurations, such as a combination of a one traveling wave and one
> standing wave.

What happens at an impedance discontinuity given those circumstances? To
find out, read my WorldRadio article, Part I of which is posted on my web
page. Part II will be posted after Christmas. At the risk of raising your
politically incorrect ire as I have done with this technical posting,
MERRY CHRISTMAS!.

> In order to make his model work, Cecil needs to invoke the mythical P3
> and P4 on the source side of the reflection discontinuity. He never gets
> around to explaining how these two waves, which exactly cancel at all
> points in space and at all times, can contain any energy at all.

The answer is simple. Do waves contain any energy at all? Do waves that
cancel contain any energy? If waves contain no energy, they cannot exist,
and therefore are incapable of canceling. If they exist and cancel, they
contained energy just before their cancellation. Any way you cut it,
my approach is consistent with the laws of physics as enumerated in "Optics",
by Hecht, and yours leads to a contradiction of those laws of physics.

> The reason that most practitioners of wave models solve for the fields
> first and then worry about power or energy is:
>
> a - This procedure works correctly all the time.

Yes, it does. But optics engineers didn't have the luxury of dealing
with voltages and currents. They had to solve the problem using powers.
And they did exactly that decades ago. That RF engineers refuse to
consider the laws of physics concerning EM waves developed by optics
engineers is absolutely astounding to me. W7EL put it best, something
to the effect that if it wasn't invented here, we don't want to hear it
(even if it is right). But I daresay that Eugene Hecht knows much more

about EM waves that you will ever know, given your closed mind.

> I do not expect to change Cecil's mind. Other than his own potential
> embarrassment from the silly publications in World Radio, his folly is
> harmless.

You are just displaying your extreme ignorance, Gene. My "WorldRadio" article corrects some of the *conceptual* errors in Dr. Best's QEX article but otherwise contains the same equations as his article. If you disagree with me, you are also disagreeing with Dr. Best's equations, i.e. you are between a rock and a hard place.

It is interesting that the very people who tell us not to worry about energy are the people who get so emotionally rabid when someone chooses to worry about energy like real-world physicists do. What do they possibly have to lose besides face, self-esteem, sleep, and their pseudo-religious guru status? :-)
--
73, Cecil http://www.qsl.net/w5dxp

4183. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 20:32:17 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <i989p1p90a2sim0s1hq71t0pge282j8qeb@4ax.com>
Source record: 66983
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.homebrew

On Mon, 05 Dec 2005 02:37:47 GMT, "Wayne P. Muckleroy"
<wmuckleroy2@neo.rr.com> wrote:

>Did you also receive a calibration kit with the VNA?

Nope.

> If you did so, then the
>lengths of these interconnect cables are not crucial for calibrated
>measurements. Only uncalibrated measurements will be affected.
>
>It would help to know the manufacturer and model of the VNA.

It's a good old HP 8754A
--

"What is now proved was once only imagin'd" - William Blake

4184. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 20:51:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <vL1lf.36225$6e1.9488@newssvr14.news.prodigy.com>
Source record: 66980

Jim Kelley wrote:
> I should have said Tom. If I were Cecil I'd have blamed the error on my
> glasses or my advanced age. ;-)

Alzheimer's can certainly strike at your age, Jim. :-) My Dad was
legally blind when he was my age so I'm ahead of the curve.

> You're at least partially right though. Power does not superpose
> (because, for among other reasons, it doesn't move or propagate). The
> point you continue to miss is that power does not interfere either.

Here's a quote from my magazine article, Jim. If you would just cease
and desist from your MF'ing ways (that's "mind", not "muther"), you
might understand. Quote:
****
"The words 'power flow' have been avoided even though
that is a term of common usage. For the purposes of this paper, energy
flows and power is a measure of that energy flowing at a fixed point or
plane. Likewise, the EM fields in the waves do the interfering. Powers,
treaded as scalars, are incapable of interference."
****
But you already knew that's what I believe since I have been telling
you exactly that in CAPITAL LETTERS for years now and even sent you
an advance copy of my magazine article. I have never asserted the things
you claim that I have. Hopefully, the readers will recognize you for
what you are.

> The irradiance equations are nevertheless
> correct because power goes as the square of the fields - which do of
> course superpose and interfere. The equations accurately describe the
> effect - the end result, the outcome, not necessarily the cause or the
> mechanism by which the result is achieved.

Where does the constructive interference energy come from, Jim? Hecht
says that in the absence of energy from other sources, the constructive
interference energy must be exactly matched by an equal amount of
destructive interference. Please present your credentials that allows
you to disagree with Eugene Hecht?

> Before we go any further (and it is my sincerest hope that we do not), I
> agree with Melles-Griot, ...

No you don't, and your disagreement is more than obvious to any informed
casual observer. You remind me of a fellow employee from the 70's. I asked
him what he would do if his wife caught him in bed with his neighbor's wife
(as I did) and he answered, "I'd just deny it."

--
73, Cecil http://www.qsl.net/w5dxp

4185. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:14:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <fsa9p15ikcg5epdntalrm826q45gvlbaf8@4ax.com>
Source record: 66981

On Mon, 5 Dec 2005 14:02:03 -0600, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Oooopss----I meant coax fed.
>

Did you really?

It is unlikely that your proposed antenna system (140' dipole + bal un
+ coax) feed will provide acceptable losses on many bands, possibly
only one band.

You have given almost no detail of the antenna (and a key element of
the detail was in error), so it is hard to give more a more exact
information.

If you hadn't mentioned the feed line type, readers would probably
have sensibly assumed open wire feed as it is much more likely to be
feasible than coax feed of such a multiband dipole.

The article at www.vk1od.net/LOLL/index.htm shows in Fig 1 and Fig 1a,
antenna system losses for an antenna system comprising a low 66'
dipole and coax feed over HF. Your 140' (I am not sure why you didn't
nominate 133' which would be resonant on 80m for simplified / lower
loss coax feed) would be very roughly a frequency scaled version of
the same thing.

Owen
--

4186. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:22:55 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dn2b3f$1hmg$1@f04n12.cac.psu.edu>
Source record: 66982

eternalsquire@comcast.net wrote:
>
> Questions:
>
> 1) Since I have an 8 foot limit for radials, could I have 1/4
> wavelength helical radials for 40m that could fit into an 8 foot
> length?

> 1a) Could I do the same helical trick for the radiator as well?
>
> 2) My base 1 inch diameter galvanized pipe is presently 2 1/2 foot into
> a 2 1/2 foot cube concrete filled hole with 2 1/2 foot exposed. What
> could I screw in it that would not need guying, and would not bend nor
> sway in 100 mph wind, and how high could I make that?
>
> 3) If I run up a metal pipe to 20 foot and then an insulated wire from
> the dirt to the top alongside the pipe as my radiator, what effect will
> the pipe have on the radiating wire?

Sounds to me like you are trying to fit the wrong antenna into the
wrong space.

Can you put radials in/on the ground? Can they be longer than 8 feet then?

And finally, can you put up a dipole or other wire antenna? If so, your
wife isn't going to be too happy when she sees the cost difference
between the dipole and what you already spent on the vertical. Dunno if
you have many trees in your area or not. But a dipole can be pretty
good, esp if money is tight. I have both a dipole (OCF) and a vertical.
They both work better than each other.... at certain times. 8^)

ALso, what bands are you trying to run?

- 73 de Mike KB3EIA -

4187. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:33:54 UTC
From: eternalsquire@comcast.net
Message-ID: <1133818434.129752.268340@g44g2000cwa.googlegroups.com>
Source record: 66984

I have no trees, streelamps, telephone poles, or anything higher than a 7 foot trailer. That was why I was considering a vertical. For practical purposes anything higher than 40 feet is forbidden and 25 foot is as high as I practically dare do. From what I understand, dipoles are not effective below 1/2 wavelength above the dirt, but verticals can work well fairly close to the dirt if they have to. From what I hear inverted vees are slightly better than dipoles but slightly worse than verticals at low altitude.

My wife really doesn't care about money as much as she cares about waste. If I can make my setup working with the stuff I already bought then great... At this point I am considering just throwing in the towel and raising a 20 foot iron pipe to mount a 20 meter inverted vee... sigh.

20m is my favorite band, followed by 40 then 30.

The Eternal Squire

4188. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:35:11 UTC
From: eternalsquire@comcast.net
Message-ID: <1133818511.007393.138960@g49g2000cwa.googlegroups.com>
Source record: 66985

I have one problem... I can only get stuff from Home Depot, about 50
miles away.

The Eternal Squire

4189. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:40:14 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dn2c3t$1ec8$1@f04n12.cac.psu.edu>
Source record: 66986

RB wrote:

> Some questions about a 140' dipole fed with ladderline from an unbalanced
> tuner to work 160-10m:
>
> 1. Does it matter if the balun is placed on the tuner output, or at the
> dipole center feedpoint?

Run the ladder line directly into the feedpoint from the tuner. The
balun is in your tuner.

> 2. Which type of balun (voltage/current) would be best for
> centerfeedpoint
> use?

> 4. What ratio balun would be optimal for either application?

The one in your tuner will suffice.

- 73 de Mike KB3EIA -

4190. Re: What is a duplexer, diplexer and combiner?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:47:53 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4394B58C.5DFAB8E9@shaw.ca>
Source record: 66987

Steve Nosko wrote:
>
> "crb" <anon@net.com> wrote in message news:dn09hk02r2p@enews1.newsguy.com...
> > What are the functions of each of these?
> >
> > Are they used on TX or RX circuits?
> >
> > I know a cell site uses a duplexer so that it
> > has an extra RX antenna for diversity. How
> > does this work? Is the duplexer on the antenna
> > that transmit/receive combo antenna notching
> > out the TX frequency so the receiver doesn't get
> > overloaded by it?
>
> Crb,
>
> These are basically filters. The terminology varies sometimes
> for "diplexer" and "duplexer", and they are both used to describe the same
> or different things. I'll give the way they are used in my field - two-way
> radio and cell phone systems.
>
(Snipped for Brevity)
>
> Hope this helps.
>
> 73, Steve, K,9.D;C'I

Nice answer Steve! I learned a few things myself!

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4191. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:48:21 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <j3d9p1hf1s8va9u5u4ie5mfr477hv5aej2@4ax.com>
Source record: 66988

On 5 Dec 2005 13:35:11 -0800, eternalsquire@comcast.net wrote:

>I have one problem... I can only get stuff from Home Depot, about 50
>miles away.

You received some good detailed advice, and dismiss it because it
isn't on the shelf at Home Depot (whoever they are, presumably a major
hardware chain that has squeezed competition out of the market place).

Gee, I can get stuff from DX Engineering and a whole lot of other US
based suppliers, and I am ~ 10,000 miles away.

Think positively, go find some solutions, select the best and
implement it.

Owen
--

4192. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 21:56:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <bl2lf.31147$Zv5.17015@newssvr25.news.prodigy.net>
Source record: 66989

eternalsquire@comcast.net wrote:
> I have one problem... I can only get stuff from Home Depot, about 50
> miles away.

If you don't have access to ordering over the internet,
how are you posting to this newsgroup?
--
73, Cecil http://www.qsl.net/w5dxp

4193. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 22:01:01 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dn2dat$1aso$1@f04n12.cac.psu.edu>
Source record: 66990

eternalsquire@comcast.net wrote:

> I have no trees, streelamps, telephone poles, or anything higher than a
> 7 foot trailer. That was why I was considering a vertical. For
> practical purposes anything higher than 40 feet is forbidden and 25
> foot is as high as I practically dare do.

Vertical is probably the way to go for you.

> From what I understand,
> dipoles are not effective below 1/2 wavelength above the dirt,

Almost true. The (misnamed?) takeoff angle of a vertical antenna is
usually lower than a dipole that is lower than optimum. However, if the
vertical is not terribly efficient, it may not work as well as a dipole
that is more efficient. That is Why I think TOA is a misnomer. Antennas
radiate in all directions. It's just that the signal strength is higher
or lower at certain angles.

> but
> verticals can work well fairly close to the dirt if they have to. From
> what I hear inverted vees are slightly better than dipoles but slightly
> worse than verticals at low altitude.

Well, they are a little different anyway.

> My wife really doesn't care about money as much as she cares about
> waste. If I can make my setup working with the stuff I already bought
> then great... At this point I am considering just throwing in the towel
> and raising a 20 foot iron pipe to mount a 20 meter inverted vee...
> sigh.

> 20m is my favorite band, followed by 40 then 30.

I think I'd be making that V right about now.

- 73 de Mike KB3EIA -

4194. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 22:19:37 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Z13lf.229922$zb5.109097@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66991

Cecil,

If this is name-dropping poker, I'll see your Hecht and raise with J.D. Jackson and Born & Wolf.

But thanks for the education. After 40 years of obtaining multiple degrees in physics followed by working R&D in the optics field I guess I still need to seek out some "real-world physicists" to figure out that energy is indeed something to "worry about". I never would have imagined such a thing!

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Yes, most people with rudimentary arithmetic skills would agree that
>> 75 plus 8.33 does not equal 133.33.
>
>
> Too bad Dr. Best posted the equation: "Ptotal = 75w + 8.33w = 133.33w"
> on this newsgroup (and, thank goodness, left it out of his article) so
> he obviously disagreed with you at the time. He also said that interference
> had nothing to do with it.
>
>> However, anyone even remotely familiar with waves would readily
>> understand that the component waves Cecil loves to talk about are
>> merely mathematical conveniences. It is entire possible to set up
>> other model configurations, such as a combination of a one traveling
>> wave and one standing wave.
>
>
> What happens at an impedance discontinuity given those circumstances? To
> find out, read my WorldRadio article, Part I of which is posted on my web
> page. Part II will be posted after Christmas. At the risk of raising your
> politically incorrect ire as I have done with this technical posting,
> MERRY CHRISTMAS!.
>
>> In order to make his model work, Cecil needs to invoke the mythical P3
>> and P4 on the source side of the reflection discontinuity. He never
>> gets around to explaining how these two waves, which exactly cancel at
>> all points in space and at all times, can contain any energy at all.
>

>
> The answer is simple. Do waves contain any energy at all? Do waves that
> cancel contain any energy? If waves contain no energy, they cannot exist,
> and therefore are incapable of canceling. If they exist and cancel, they
> contained energy just before their cancellation. Any way you cut it,
> my approach is consistent with the laws of physics as enumerated in
> "Optics",
> by Hecht, and yours leads to a contradiction of those laws of physics.
>
>> The reason that most practitioners of wave models solve for the fields
>> first and then worry about power or energy is:
>>
>> a - This procedure works correctly all the time.
>
>
> Yes, it does. But optics engineers didn't have the luxury of dealing
> with voltages and currents. They had to solve the problem using powers.
> And they did exactly that decades ago. That RF engineers refuse to
> consider the laws of physics concerning EM waves developed by optics
> engineers is absolutely astounding to me. W7EL put it best, something
> to the effect that if it wasn't invented here, we don't want to hear it
> (even if it is right). But I daresay that Eugene Hecht knows much more
> about EM waves that you will ever know, given your closed mind.
>
>> I do not expect to change Cecil's mind. Other than his own potential
>> embarrassment from the silly publications in World Radio, his folly is
>> harmless.
>
>
> You are just displaying your extreme ignorance, Gene. My "WorldRadio"
> article
> corrects some of the *conceptual* errors in Dr. Best's QEX article but
> otherwise
> contains the same equations as his article. If you disagree with me, you
> are
> also disagreeing with Dr. Best's equations, i.e. you are between a rock
> and a
> hard place.
>
> It is interesting that the very people who tell us not to worry about
> energy
> are the people who get so emotionally rabid when someone chooses to
> worry about
> energy like real-world physicists do. What do they possibly have to lose
> besides
> face, self-esteem, sleep, and their pseudo-religious guru status? :-)

4195. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 22:25:51 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <P73lf.125788$qk4.16170@bgtnsc05-news.ops.worldnet.att.net>
Source record: 66992

Richard,

OK, I will turn this right back at you. How do you know that the
countless Faraday screens remove the E-field component from
electromagnetic waves?

"Saying it does not make it so."

Yes, I understand they are used in broadcast transmission lines, and
yes, I understand they take many lightning hits.

Faraday screens are effective. How do you know that they also negate the
fundamental properties of time-varying electric and magnetic fields as
expressed by Maxwell's equations?

73,
Gene
W4SZ

Richard Harrison wrote:
> Gene, W4SZ write:
> "As has been said many times on this newsgroup, it is not possible to
> filter out one field component or the other."
>
> Saying it does not make it so.
>
> Countless Faraday screens are at work removing the E-field component
> from electromagnetic waves. Faraday said that the voltage in a coupled
> circuit depends only on the rate of change of the magnetic flux through
> the circuit. He was refering to induced voltage. It was 1831 when
> Michael Faraday observed the interaction between primary and secondary
> coils in what was likely the world`s first transformer. Faraday made it
> himself and noted that the needle of a galvanometer connected across one
> coil deflected briefly whenever he connected or disconnected a battery
> across the other coil.
>

4196. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 22:42:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Sn3lf.31152$Zv5.6624@newssvr25.news.prodigy.net>
Source record: 66993

Gene Fuller wrote:
> If this is name-dropping poker, I'll see your Hecht and raise with J.D.
> Jackson and Born & Wolf.

Please post any contradiction of Hecht by your sources. That argument could get very interesting. To summarize: Constructive interference energy must come from somewhere in the real world. You seem to disagree. So where do you think constructive interference energy comes from?

> But thanks for the education. After 40 years of obtaining multiple
> degrees in physics followed by working R&D in the optics field ...

If you are omniscient, please prove it. If you are not omniscient and still capable of learning, please admit it. The trouble with gurus is that they sincerely believe that they know everything already and therefore cannot possibly learn anything new. I'm still open to learning. How about you?

> ... I guess I
> still need to seek out some "real-world physicists" to figure out that
> energy is indeed something to "worry about". I never would have imagined
> such a thing!

That's a really strange thing to admit, Gene, since a very large percentage of the physics community is dedicated to understanding where the energy was, is, and will be - down to an almost infinitessimally small amount. You definitely seem to be cast in the mold of the priests who put Galileo under house arrest. Are you comfortable with that position?
--
73, Cecil http://www.qsl.net/w5dxp

4197. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 22:48:28 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <0t3lf.230043$zb5.115797@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66994

Cecil,

If you know anything about physics, you must know that energy is at the
core of almost all physical analysis.

Sorry that my message was too opaque for you.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>
>> ... I guess I still need to seek out some "real-world physicists" to
>> figure out that energy is indeed something to "worry about". I never
>> would have imagined such a thing!
>
>
> That's a really strange thing to admit, Gene, since a very large percentage
> of the physics community is dedicated to understanding where the energy
> was, is, and will be - down to an almost infinitessimally small amount.
> You definitely seem to be cast in the mold of the priests who put Galileo
> under house arrest. Are you comfortable with that position?

4198. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 22:50:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11p9h1kn73bctd4@corp.supernews.com>
Source record: 66995

A short while ago, I explained why your Faraday cage doesn't separate E and H as you claim. Exactly the same explanation applies to this structure, but with E and H reversed. It locally modifies the E/H ratio but doesn't separate the field components and it certainly doesn't remove the E field as you claim.

Roy Lewallen, W7EL

Richard Harrison wrote:
> it is just as easy to remove the H-field from the wave as it is to
> remove the E-field with a Faraday screen.
>
> To remove the H-field, one sure way is to completely enclose two coils
> so they are completely shielded from each other and all electromagnetic
> waves. Put the coils in separate metal cans. Put a tiny hole in each
> can. Conect one termial of each coil to its end of a coupling capcitor.
> Ground the other terminal of each coil.. Ground is the return path for
> the coils but it must run on the surfaces of the cans and through the
> tiny holes due to skin effect.
> Complete shielding removes the H-field as a coupling agent. Only E-field
> coupling is provided via the coupling capacitor.
>
> Best regards, Richard Harrison, KB5WZI
>

4199. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-05 22:56:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <aA3lf.31159$Zv5.16062@newssvr25.news.prodigy.net>
Source record: 66996

Gene Fuller wrote:
> If you know anything about physics, you must know that energy is at the
> core of almost all physical analysis.

I couldn't agree more, but that's exactly the topic from which you tried
to divert attention in your posting. Here's what you said:

>"I guess I still need to seek out some "real-world physicists" to
> figure out that energy is indeed something to "worry about". I
> never would have imagined such a thing!"

If you don't worry about energy, you have nothing to add to the discussion.
If you do worry about energy, please read my "WorldRadio" article which
tells you more than you (and others) ever wanted to know about energy in an
RF transmission line.
--
73, Cecil http://www.qsl.net/w5dxp

4200. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 01:32:03 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <xQ5lf.10720$Pc3.8043@bignews5.bellsouth.net>
Source record: 66997

Fell prey to the old "don't engage mouth prior to engaging brain" syndrome.

Sorry about the confusion I caused. My bad.

Was just wondering if coax feed with balun at centerpoint would be better
than ladderline feed with balun at tuner output (and no, my tuner doesn't
have an internal balun).

4201. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 01:45:15 UTC
From: eternalsquire@comcast.net
Message-ID: <1133833515.921579.214180@o13g2000cwo.googlegroups.com>
Source record: 66998

Excuse me very much, but isn't shipping for exotic alloy pipe going to be more expensive than the pipe itself?

That's not negative, that's practical!

The Eternal Squire

4202. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 01:49:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <X66lf.36329$6e1.12115@newssvr14.news.prodigy.com>
Source record: 66999

RB wrote:
> Was just wondering if coax feed with balun at centerpoint would be better
> than ladderline feed with balun at tuner output.

You could probably get away with 2" hardline at about $10
a foot if cost is not object.
--
73, Cecil http://www.qsl.net/w5dxp

4203. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 01:56:19 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <kpr9p15ucolcauav7ahdjqscudfhusgrr3@4ax.com>
Source record: 67000

On Mon, 5 Dec 2005 19:32:03 -0600, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Was just wondering if coax feed with balun at centerpoint would be better
>than ladderline feed with balun at tuner output (and no, my tuner doesn't
>have an internal balun).

I can only assume that if you are still asking that question 6 hours
after I wrote you a response, that you didn't read / understand the
response and the referenced article!

If that was too hard to understand, the short answer is NO. If you
want to understand why, go back and read my earlier posting and the
article.

Owen
--

4204. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 02:08:42 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Ko6lf.126295$qk4.2412@bgtnsc05-news.ops.worldnet.att.net>
Source record: 67001

Cecil,

Sorry, I should have written,

"I guess I still need to seek out some "real-world physicists" to
figure out that energy is indeed something to "worry about". I
never would have imagined such a thing!" 8-) 8-) 8-)
8-) 8-) 8-) 8-) 8-) 8-) 8-) 8-) 8-) 8-)
8-) 8-) 8-) 8-) 8-) 8-)

I thought my intention was obvious, but it seems I failed to communicate.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> If you know anything about physics, you must know that energy is at
>> the core of almost all physical analysis.
>
>
> I couldn't agree more, but that's exactly the topic from which you tried
> to divert attention in your posting. Here's what you said:
>
> >"I guess I still need to seek out some "real-world physicists" to
> > figure out that energy is indeed something to "worry about". I
> > never would have imagined such a thing!"
>
> If you don't worry about energy, you have nothing to add to the discussion.
> If you do worry about energy, please read my "WorldRadio" article which
> tells you more than you (and others) ever wanted to know about energy in an
> RF transmission line.

4205. Re: Antennas-History (What's Going On?)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 02:58:53 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11p9vm9e0tdena7@corp.supernews.com>
Source record: 67002

"W. Watson" <wolf_tracks@invalid.com> wrote in message
news:QZQjf.3430$Hk1.3217@newsread1.news.pas.earthlink.net...
> Sometimes (back then, and maybe still), one could by tech books from China
> that was on almost tissue paper pages. They were quite cheap.

You can find people on Amazon.Com selling books this way. The books themselves often have stern warnings about how they're only licensed to be sold in specific countries such as China or India, although personally I have a hard time feeling too sorry for the publisher if the purchaser really is someone trying to get an education and not the librarian of a well-funded company who's stocking the corporate library.

(I could also whine about how most public libraries today seem to have incredibly poor selections of _contemporary_ technical books, but I suppose that with their limited budgets purchasing the newest romance novel for $10.99 does generate a lot more checkouts than purchasing the re-print of Grover's Inductance Calculations...)

It's interesting that educational textbooks in the USA tend to cost pretty much the same as 'professional' texts (e.g., those from Artech house) or more (e.g., more of the technical texts from Dover are quite inexpensive) whereas the software industry figured out a long time ago that it's better to sell students, e.g., a stripped down $99 version of Office than have them pirate the $799 professional version. As it is, very few students keep their textbooks at the end of their classes, which I think is rather unfortunate... although I would admit that many people who become, e.g., EE's today truly never expect to crack open Cheng or Sedra & Smith (or even Horowitz & Hill!) for their entire careers.

In the past decade, I've found some very good, reasonably priced self-published book or eBooks, such as those on Peter Joseph's site. (In fact, I still wish I could find out whether or not John Pastonek ever published anything besides his RF oscillators short course book -- in the back of the book he claims there either are or would be others, but he seemed to have dropped off the fact of the earth.)

---Joel Kolstad

4206. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 03:11:18 UTC
From: richardharrison@webtv.net
Message-ID: <13800-43950156-464@storefull-3254.bay.webtv.net>
Source record: 67003

Roy Lewallen, W7EL wrote:
"A short while ago, I explained why your Faraday cage doesn`t separate the E and H fields as you claim."
n
I am misunderstood. I never used the tem Faraday cage. I understand the Faraday cage to be a completely shielded enclosure which could be a metal automobiole body, a steel rebar reinforced concrete structure or a screened room. These all tend to completely block both the E-field and the H-field components of an electromagnetic wave.

I gave an example of the metal rakes (Faraday screens) used at the medium wave broadcast plants where I worked. The function of the Faraday screen was primarily to eliminate capacitive cooupling, and thus the E-field between the transmission line and the antenna. This reduces harmonic radiation. It adds expense and complexity but is worth the price for lightning suppression if for nothing else.

Most Faraday screens are used at powerline frequencies to eliminate capaacitive coupling between primary and secondary of a power transformer.

I checked the internet for a recent posting and found an article by arnie@radiohc.org who wrote: "Beware, this cannot be an auto-transformer. It must be a transformer with two completely isolated windings, and with a Faraday Screen wound between the two."

Why would one pay a lot of extra money for a transformer which eliminated capacitive coupling if it didn`t work, especially in Havana, Cuba?

Best regards, Richard Harrison, KB5WZI

4207. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 04:25:50 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1133843150.873440.32590@g14g2000cwa.googlegroups.com>
Source record: 67004

eternalsquire@comcast.net wrote:

> Excuse me very much, but isn't shipping for exotic alloy pipe going to
> be more expensive than the pipe itself?

It's not "pipe", it's thin-walled very light weight high-strength
aluminum TUBING. which is about as "exotic" as CW in ham circles. Don't
ask us what the shipping costs would be, push back yer keyboard and
dial Texas towers @ (800) 272-3467 and ask them.

As to your problem with hundred-mile round trips to your nearest Home
Despot store: I have two of 'em 15 +/- minutes from here and except
for some occasional stainless nuts, bolts and cheap wire they're
useless as far as decent sources of antenna materials go.

The Mother of All REAL Hardware Stores is McMaster-Carr. 3,000 + page
of industrial-quality bits and pieces which make great antenna parts
only a phone call away. They have staineless u-bolts on top of
stainless u-bolts, aluninum stock for adapter plates, all of it . .

http://www.mcmaster.com/

(330) 342-6100 for help with finding what you want if their website
catalog comes up overwhelming.

If you're averse to online purchasing that's OK, order all your antenna
"stuff" by telephone, then sit on yer butt and wait to have it dropped
on you by UPS or FedEx within a couple days at most.

Ditto DXengineering: (800)-777-0703

> That's not negative, that's practical!

You have problem with your priorities and what's up out here in
practical ham antenna realities.

> The Eternal Squire

w3rv

4208. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 04:36:29 UTC
From: richardharrison@webtv.net
Message-ID: <7954-4395154D-2385@storefull-3256.bay.webtv.net>
Source record: 67005

Gene, W4SZ wrote:
"How do you know that they also negate the fundamental properties of time-varing electric and magnetic fields as expressed by Maxwell`s equations?"

I did not make that claim.

Pits from the lightning strikes are evidence that the voltage gradient is high between the coil and the Faraday screen. The second coil is clean, not pitted.

I explained the operation of a Faraday screen earlier but was misunderstood so I`ll quote a professional writer and consulting engineer, B. Whitfield Griffith, Jr. who writes on page 246 of "Radio-Electronic Transmission Fundamentals":

"It is often desirable and practical to allow one type of coupling between circuits and eliminate the other. Figure 28-1, for instance, shows two coils which are coupled but have a special type of shielding between them that causes the coupling to be purely inductive and not capacitive, This shield consists of an array of parallel wires which are grounded at one end only. The lines of electric force from the coils terminate on these grounded wires, so that there are no electric lines of force passing from one coil to the other and hence no capacitive coupling. On the other hand, since the wires do not form closed loops, there is no circulating current in the shield and therefore nothing to stop the penetration of the shield by the magnetic field. This type of shield has long been known as a Faraday screen. It is important that the capacitive coupling be eliminated in many cases, since it has the characteristics of a high-pass filter, tending to accentuate the harmonic content of the transmitted signal."

I never tried it, but I`d bet that someone has measured the radiated harmonics both with and without the Faraday screens inplace. That would prove effectiveness.

Short-circuiting the open ends of the Faraday screen wires would kill transfer of the signal between primary and secondary of the transformer, and the transmitter would likely complain.

Best regards, Richard Harrison, KB5WZI

4209. Re: how to measure antenna impedance ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 04:57:33 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43951A3D.5060804@comcast.net>
Source record: 67006

Wes,

Thanks. If I read the gist of your reply the physical dimensions are the root cause of the phase difference between the forward and reflected signals. Is this true?

Thanks again - this is very helpful. Dan - kb0qil

Wes Stewart wrote:
> On Sun, 04 Dec 2005 07:57:55 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>Wes,
>>
>>Your answer to the question about bidirectional couplers was they do not
>>compensate for phase shift. Let me ask it again:
>>
>>Do the measuring ports of a bi-directional coupler accurately represent or
>>preserve the relative phases of the signal?
>>
>>To put it another way is the phase shift of the driving and reflected signals
>>changed by the same about?
>>
>>Thanks - Dan kb0qil
>
>
> I'm not sure I understand the question(s) but in the case of a vector
> reflectometer using a dual directional coupler maybe this will help.
>
> Here is a dual directional coupler.
>
>
> Reverse Forward
> | |
> | |
> |----------R R ---------|
> X X
> Input --A----------------------B--C Load
>
>
> Let's say that at frequency, F, the coupling factor (X) is -10 dB with
> no phase shift between point B and the forward port and between point
> A and the reverse port to keep it simple.
>

> So a wave propagating in the forward direction (Input --> Load)
> induces a signal at the forward port that is 10 dB below the input at
> 0 degrees phase with respect to point B. A wave propagating in the
> opposite direction has the same relationship at the reverse port; 10
> dB down and 0 degrees phase with respect to point A.
>
> A to Reverse and B to Forward -might- track reasonably well in both
> magnitude and phase, but in this case, it's immaterial.
>
> Because B-A and C-B > 0 there will be a frequency dependent phase
> difference between A, B and C.
>
> When we calibrate using a short on the load port here's what happens.
>
> The signal at the forward port becomes the reference, i.e., unity
> amplitude and 0 degrees phase.
>
> The short creates a 100% reflection and -180 degree phase shift. This
> signal propagates back down the main line to the source, which is
> assumed to be a perfect match, so there is no re-reflection. A -10 dB
> sample (by definition: unity) is coupled to the reverse port, with a
> phase shift, theta(F), determined by the electrical length of the line
> C -> B -> A.
>
> Unless we are lucky enough to be Lotto winners, the signal at the
> reflected port -will not- be 1 @ ang-180 deg. So our calibration
> routine must do whatever math is necessary to make the ratio B/A = 1 @
> ang-180. This fudge factor is then applied to all subsequent
> measurements to "correct" the data.
>
> Now to address (I think) your question. If we change frequencies,
> theta(F) changes and the fudge factor no longer corrects for it.
> While the coupling factors might track, it is of little consolation
> because the calibration is good only at the frequency where it was
> performed. Automatic network analyzers perform calibration at each
> test frequency, or at least enough points to interpolate between.
>
>
>

4210. measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 05:18:33 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <3M-dnWU27IqxggjenZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 67007

I would like to know if the follow technique will work to measure resonance of an antenna. I know have a working HP 8405a. It has been a struggle to repair it and to align it, however it now appears to be working.

My plan is to connect a bi-directional coupler to the 8405a. The coupler will be terminated in a 50 Ohm terminator. The phase will be read for this configuration. The next step is to replace the 50 Ohm terminator with a direct connection to an unknown antenna. I will then change the frequency until the phase angle matchs the 50 Ohm phase angle.

Does this make sense?

What are the draw backs?

How close will this method get compared to a noise bridge?

Thanks - Dan kb0qil

4211. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 05:19:12 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <kb9lf.557$FP6.102@newsread2.news.pas.earthlink.net>
Source record: 67008
Cross-posted to: rec.radio.amateur.antenna,ko6no@yahoo.com

Ken Fowler wrote:

> On 1-Dec-2005, Phil Wheeler <w6tuh-ng7@yahoo.com> wrote:
>
>
>>Xref: number1.nntp.dca.giganews.com rec.radio.amateur.antenna:253561
>>
>>BKR wrote:
>>
>>>Computers and computer components are regulated by the FCC.
>>>They MUST NOT cause interferance to licenced radio services.
>>>(like the radio stations you are trying to tune in.)
>>>Make that clear to the vendor you got the power supply from!
>>>
>>
>>Interesting thought but impractical. It could be the installation
>>(e.g., grounding) vs. the supply itself. Event if the PSU itself,
>>proving it would be a chore.
>
>
> The noise from PC Power Supplies is usually radiated from the power cord and the house
wiring. The
> cause is often that the manufacturers cut cost by leaving out the L and C components of
the line
> filter. Usually you will find the place on the PSU circuit board to mount a bi-filar
choke and two
> or three capacitors. The capacitors are missing and the pads for the choke are jumpered.
If you
> can find an older junk PSU which has the components, just unsolder them from the junk
board and
> install them in your PSU. Sometimes the PSU's in Monitors have the filter components.
>
> When I installed the filter in my old Pentium, the switch mode hash on broadcast band
stations went
> down by 30 db. Installing line filters outside the CPU Case had very little effect.
>
> -ken-
I was in the HSC store in Sacramento and discovered some filters that were
inside the AC switch. I decided against them, since I wasn't sure about the
amperage. I would think though the chassis builder might include such
devices, but haven't checked. Tomorrow I'll order the corcom filter 10ek7 10
amps that someone suggested from a place in San Jose, CA. $5.00. I'll give
that a whirl. Looks like I'll have to cut the cord to put it in the line.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in arid or desert country? Check your
boots well to see if you have a scorpion in them.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4212. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 05:53:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pa9quedgve336@corp.supernews.com>
Source record: 67009

Sigh

Richard Harrison wrote:
> Roy Lewallen, W7EL wrote: "A short while ago, I explained why your
> Faraday cage doesn`t separate the E and H fields as you claim." n I
> am misunderstood. I never used the tem Faraday cage. I understand the
> Faraday cage to be a completely shielded enclosure which could be a
> metal automobiole body, a steel rebar reinforced concrete structure
> or a screened room. These all tend to completely block both the
> E-field and the H-field components of an electromagnetic wave.

Sorry, I meant "Faraday screen", which is the term you used, and I used in my posting explaining its operation.

If you block either the E or H field, you also block the other. You can't independently block one or the other.

> . . .

> Why would one pay a lot of extra money for a transformer which
> eliminated capacitive coupling if it didn`t work, especially in
> Havana, Cuba?

Because in order to "work" it doesn't need to "eliminate capacitive coupling". All it needs to do is locally reduce the E/H field ratio, which is what it does.

Roy Lewallen, W7EL

4213. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 10:55:26 UTC
From: HS <hmjs@spray.se>
Message-ID: <y6elf.151891$dP1.509674@newsc.telia.net>
Source record: 67010

My suggestion would be the following:

Cut that buried 1" pipe about a foot over the ground, to serve as a ground support for your new antenna.

Get a heavier steel pipe (ca 1"3/4 - 2") that will fit over the 1" pipe, and perhaps 10 foot long.

Get a cheap fiberglass (not carbon) fishing rod ca 18 feet long, (1/4 wave on 20m)

Tape a 1/4 wire radiator to the fishing rod, and feed with coax at bottom of rod.

Attach fishing rod securely to the top of your new mast pipe.

Rise the pipe and fishing rod assembly vertically and guy at the point where the fishing rod is attached.

Now you can run elevated wire radials along the guy ropes, and you should probably also ground the coax shield to the mast pipe at the feed point.

Enjoy!

73 de Hans, SM3PXG

eternalsquire@comcast.net wrote:
> Ground system:
>
> 5 foot of 1 inch diameter galvanized iron pipe, halfway stuck in ground
> with concrete.

> 9 foot carbon fiber fishing rod, handle epoxied and inserted into pipe
> a wire is attached to copper pipe and run up to end of rod.
> Hot end of coax connected to bottom of copper pipe
>

>
> Rope guys are econnected to the top part of the shaft coupler, as the
> middle of the shaft coupler is predicted to be weakest point.
>

>
> Sigh,
>
> The Eternal Squire
>

4214. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 13:41:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1yglf.32224$Zv5.9900@newssvr25.news.prodigy.net>
Source record: 67011

Gene Fuller wrote:
> I thought my intention was obvious, but it seems I failed to communicate.

Others on this newsgroup have admonished me for worrying about
energy and refused to discuss the subject. I thought you were
doing the same. Sorry. But do you actually have any references
that contradict "Optics", by Hecht?

In Dr. Best's article, he superposes V1 with V2 such that constructive
interference energy is needed to complete the superposition. On this
newsgroup, I asked Dr. Best where that necessary constructive interference
energy comes from and he didn't know. That's when I went searching for
references and found them in the field of optics.

Constructive interference energy can be supplied by local sources
as occurs in W7EL's "Food for Thought #1" with its DC example. Or
constructive interference energy can be supplied at a point away
from the source(s) by destructive interference, e.g. wave cancellation
at the non-reflection surface of a layer of thin-film on glass or
at a match point in a transmission line.
--
73, Cecil http://www.qsl.net/w5dxp

4215. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 13:55:54 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <11pb63eng0i06fb@corp.supernews.com>
Source record: 67012

"John S. Dyson" <toor@iquest.net> wrote in message
news:dmspa6srh1@news.iquest.net...
> In article <11otv7q7vq0a450@corp.supernews.com>,
> "Jeff Dieterle" <jdieter@nospam.carlnet.org> writes:
>>>>> You never mention how far away you are from "... Indianapolis 1070kc
>>>>> and
>>>>> Chicago 670kc & 1000kc." That'll have a LARGE bearing on the
>>>>> day/night
>>>>> reception question.
>>>>>
>>>>> Jonesy
>>>>> --
>>>>> Marvin L Jones | jonz | W3DHJ | linux
>>>>> Pueblo, Colorado | @ | Jonesy | OS/2 __
>>>>> 38.24N 104.55W | config.com | DM78rf | SK
>>
>> I'm 70mi from Indy and 120mi from Chicago. Chicago 670kc is reasonable at
>> night 1070kc out of Indy at night is pretty bad.
>> Is 40ft at right angles to these signals better that 200ft parallel?
>>
> (This doesn't solve your problem, but might give you some info as to
> why the reception of WIBC is somewhat difficult.)
>
> Given your distances, then you are somewhere between Indy and Chicago.
>
> WIBC drops their power significantly at night, and also the antenna
> pattern shows that the available signal is probably the worst possible
> given the antenna :-(. Here is a picture of the WIBC pattern, and
> consider the WIBC towers are on the NW side of Indy.
>
> http://www.fcc.gov/Bureaus/MB/Databases/AM_DA_patterns/306964-6786.pdf
>
> John

Ya, I see they drop their signal strength from 50kw to 10kw at night. What
would be the best antenna design for this station. I've considered buying a
tuned loop for this frequency but I'm reluctant to drop $70 and maybe not do
any better than my straightwire.

4216. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 14:05:19 UTC
From: Eskay <siebklaasNO@SPAMhotmail.com>
Message-ID: <6z1e3q30df0a.18pnjpqbo6wpx$.dlg@40tude.net>
Source record: 67013

On Tue, 06 Dec 2005 01:56:19 GMT, Owen Duffy wrote:

> On Mon, 5 Dec 2005 19:32:03 -0600, "RB" <rbig@bellsouth.nospam.net>
> wrote:
>
>
>>Was just wondering if coax feed with balun at centerpoint would be better
>>than ladderline feed with balun at tuner output (and no, my tuner doesn't
>>have an internal balun).
>
> I can only assume that if you are still asking that question 6 hours
> after I wrote you a response, that you didn't read / understand the
> response and the referenced article!
>
> If that was too hard to understand, the short answer is NO. If you
> want to understand why, go back and read my earlier posting and the
> article.
>
> Owen

There is now a certain amount of sarcasm flowing in this thread.
The HAM spirit died. Pity.
Eskay.

4217. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 14:28:41 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <tehlf.234591$ir4.139101@edtnps90>
Source record: 67014

>I would like to know if the follow technique will work to measure resonance
>of an antenna. I know have a working HP 8405a. It has been a struggle to
>repair it and to align it, however it now appears to be working.
>
> My plan is to connect a bi-directional coupler to the 8405a. The coupler
> will be terminated in a 50 Ohm terminator. The phase will be read for this
> configuration. The next step is to replace the 50 Ohm terminator with a
> direct connection to an unknown antenna. I will then change the frequency
> until the phase angle matchs the 50 Ohm phase angle.
>
> Does this make sense?
>
> What are the draw backs?
>
> How close will this method get compared to a noise bridge?
>
> Thanks - Dan kb0qil

Dan, the phase angle of the reflection coefficient of a matched load is unimportant, and is likely to be anything. Specifically; if it is a dot on the Smith Chart center -- who cares? Typically the return loss of a good quality load could well be > 40dB. Again, if you are measuring beyond the frequency range of the coupler you must determine its directivity. It is very likely that you are reading the phase of poor directivity and not the 50 ohm load. Also if you are using the 8405A, do you have all the accessories? In particular the BNC (+ 50 ohm thru) probe attachments which should be connected directly to your coupler ports. If you require N - BNC adapters to connect to the coupler, then as long as you have the same structures on each port, any phase error will be cancelled out. It is also good practice to attach a high quality 20 dB pad to the input of the coupler (thus ensuring your source return loss approaches 40 dB) -- you cannot always be certain that your source, plus coax, provides a good match. Note if the unit cannot lock with the 20 dB pad, then at least use a 10 dB pad.

Another test is to connect both probes to the same source via a BNC "T" adapter. Do you show zero phase error?

Interesting you have an 8405A, it is many years since I used one. I see them priced from $250.00 to a fully refurbished unit from Tucker (www.tucker.com) for $2,500.00.

Regards,

Frank

4218. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 14:37:27 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <id8bp113u6n2m1k5obbvcl8brtc72h1muq@4ax.com>
Source record: 67015

On Mon, 5 Dec 2005 14:02:03 -0600, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Oooopss----I meant coax fed.
>

If you're really going to feed the antenna with coax, why do you need
a balun? Just run the coax straight to your tuner coax connection.

You're losses on various bands may be pretty high with coax. That's
why most all-banders are fed with ladderline. Losses are lower. But
that's your choice.

Bob
k5qwg

4219. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 14:45:27 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dn4867$1fo6$1@f04n12.cac.psu.edu>
Source record: 67017

RB wrote:

> Fell prey to the old "don't engage mouth prior to engaging brain" syndrome.
>
> Sorry about the confusion I caused. My bad.
>
> Was just wondering if coax feed with balun at centerpoint would be better
> than ladderline feed with balun at tuner output (and no, my tuner doesn't
> have an internal balun).

Didn't you say you had an unbalanced tuner? Most modern ones have a balun to perform that function. I suspect there is one in there. I have been toying with an "old school unbalanced one that uses a couple roller inductors, but I haven't seen too many of those around.

At any rate, if you put up 140 feet of dipole, and want to work 160-10 meters, you *should* be using balanced line, and a tuner that can handle that.

Trying to use a coax fed system and tuner in this manner, you'll not have very good luck. The coax will have problems at some of the very high mismatches at some frequencies.

- 73 de Mike KB3EIA -

4220. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 14:45:36 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <b68bp1tis4n913g4respjmj0apig6rq6vm@4ax.com>
Source record: 67016

On Mon, 05 Dec 2005 21:18:33 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>I would like to know if the follow technique will work to measure resonance of
>an antenna. I know have a working HP 8405a. It has been a struggle to repair it
>and to align it, however it now appears to be working.
>
>My plan is to connect a bi-directional coupler to the 8405a. The coupler will be
>terminated in a 50 Ohm terminator. The phase will be read for this
>configuration. The next step is to replace the 50 Ohm terminator with a direct
>connection to an unknown antenna. I will then change the frequency until the
>phase angle matchs the 50 Ohm phase angle.
>
>Does this make sense?

Sort of, but not exactly. As I described in another thread, the
pitfall is the fact that the phase lengths of the coupler are
different. You could set the phase offset to zero at frequency X but
when you change to frequency Y, there is a built-in error.

The correction for this is to use a line stretcher that (more-or-less)
equalizes the phase lengths with respect to frequency.

>
>What are the draw backs?

See above.
>
>How close will this method get compared to a noise bridge?

With a little care you can make measurements that leave noise bridge
measurements in the dust... not even close. With -lots- of care, you
can approach network analyzer accuracy... more than is needed for
practical antenna measurements.

You need to see H-P App note AN77-3. When I get time---and with my
dial-up connection---I mean lots of time, I will try to post a 13
MByte .pdf on qsl.net, if that's working.

4221. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 14:50:27 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <m69bp1p7votgk45bdus1n5a16oogbtkm8f@4ax.com>
Source record: 67018

On Tue, 06 Dec 2005 07:45:36 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Mon, 05 Dec 2005 21:18:33 -0800, dansawyeror
><dansawyeror@comcast.net> wrote:
>
>>I would like to know if the follow technique will work to measure resonance of
>>an antenna. I know have a working HP 8405a. It has been a struggle to repair it
>>and to align it, however it now appears to be working.
>>
>>My plan is to connect a bi-directional coupler to the 8405a. The coupler will be
>>terminated in a 50 Ohm terminator. The phase will be read for this
>>configuration. The next step is to replace the 50 Ohm terminator with a direct
>>connection to an unknown antenna. I will then change the frequency until the
>>phase angle matchs the 50 Ohm phase angle.
>>
>>Does this make sense?
>
>Sort of, but not exactly. As I described in another thread, the
>pitfall is the fact that the phase lengths of the coupler are
>different. You could set the phase offset to zero at frequency X but
>when you change to frequency Y, there is a built-in error.

I should have added that you don't do this with a 50 ohm load, but a
short circuit instead. You want a big reflection with a known phase
for a calibration standard.

4222. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 15:01:55 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <Vf-dnaesE8d7OgjenZ2dnUVZ_t-dnZ2d@comcast.com>
Source record: 67019

After reading this thread it seems there is significant confusion between E and H fields created locally from electric current and the E and H aspects of a passing RF photon stream. It is easy to see how this can occur. That said the tools for working with them are entirely different.

E and H fields from capacitors, inductors, and transformers are predominantly local effects. Photons are not involved, they are created by electric current and are explained by Maxwell equations. They can be created separately, that is a capacitor is pretty much a pure E field and an inductor an H field, albeit none of these are perfect. Photons are not involved in the operation of a

On the other hand EM waves and photons which are RF waves and visible light and beyond are entirely different. Although they are referred to as electro-magnetic, they are in fact massless particles with a well defined energy that is a function of frequency. These particles, traveling at the speed of light, create what is referred to as RF including RF fields. The E and M components cannot be separated. Antennas are devices which convert RF currents into photons for transmission and to convert photons into RF currents on reception, all this at the frequencies we are mostly interested in.

These are two very different physical constructs. Now at RF frequencies - Faraday shields are local electrical devices, they have nothing to do with photons and antennas. (Although they may be effective at blocking their passage.) Electric currents in equipment create both E and H fields. These fields are not associated with photons and can be separated. Faraday shields are a way to block the E portions of those local fields while allowing the passage of the H.

Dan

Roy Lewallen wrote:
> *Sigh*
>
> Richard Harrison wrote:
>
>> Roy Lewallen, W7EL wrote: "A short while ago, I explained why your
>> Faraday cage doesn`t separate the E and H fields as you claim." n I
>> am misunderstood. I never used the tem Faraday cage. I understand the
>> Faraday cage to be a completely shielded enclosure which could be a
>> metal automobiole body, a steel rebar reinforced concrete structure
>> or a screened room. These all tend to completely block both the
>> E-field and the H-field components of an electromagnetic wave.
>
>
> Sorry, I meant "Faraday screen", which is the term you used, and I used
> in my posting explaining its operation.

>
> If you block either the E or H field, you also block the other. You
> can't independently block one or the other.
>
>> . . .
>
>
>> Why would one pay a lot of extra money for a transformer which
>> eliminated capacitive coupling if it didn`t work, especially in
>> Havana, Cuba?
>
>
> Because in order to "work" it doesn't need to "eliminate capacitive
> coupling". All it needs to do is locally reduce the E/H field ratio,
> which is what it does.
>
> Roy Lewallen, W7EL

4223. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 15:41:40 UTC
From: richardharrison@webtv.net
Message-ID: <13799-4395B134-1973@storefull-3254.bay.webtv.net>
Source record: 67021

Richard Clark, KB7QHC wrote:
"From your copy of Bailey, review the text, and reconcile his remarks."

Richard Clarks advice is good. Arnold B. Bailey in "TV and Other Receiving Antennas" does a more extensive job of explaining how antennas work than most other authors. Wish everybody interested in antennas could read Bailey.His catalog of antenna types is convenient too.

Best regards, Richard Harrison, KB5WZI

4224. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 15:44:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <4lilf.29254$q%.10093@newssvr12.news.prodigy.com>
Source record: 67020

Bob Miller wrote:
> You're losses on various bands may be pretty high with coax. That's
> why most all-banders are fed with ladderline. Losses are lower. But
> that's your choice.

Owen has a feedline loss calculator at: http://www.vk1od.net/tl/tllce.php
EZNEC (including the free demo version at www.eznec.com) can be used
to estimate the SWR to plug into the calculator.

For instance, 100 feet of RG-58a used on 14 MHz with an average SWR of 5:1,
loses ~4.7 dB, or ~66%.

To get the same loss with Wireman #554 ladder-line, the average SWR could
be allowed to equal 53:1.
--
73, Cecil http://www.qsl.net/w5dxp

4225. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 16:21:57 UTC
From: richardharrison@webtv.net
Message-ID: <13801-4395BAA5-110@storefull-3254.bay.webtv.net>
Source record: 67023

Dan Sawyeror wrote:
"They can be created separately, that is a capacitor is pretty much a pure E field and an inductor an H field."

Agreed.

Whenever a current grows or shrinks (with acceleration) it produces both an E-field and an H-field. I didn`t clam a permanent divorce, only an instantaneous separation.

Best regards, Richard Harrison, KB5WZI

4226. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 16:34:30 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <q4jlf.126$n1.51@newsread2.news.pas.earthlink.net>
Source record: 67022

This is really weird. The noise stopped! There's no question that when I
first noticed this some weeks ago that it was linked to turning the PC on,
and would disappear when I turned it off. I haven't changed anything.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in arid or desert country? Check your
boots well to see if you have a scorpion in them.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4227. Re: What is a duplexer, diplexer and combiner?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 16:43:21 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn4f39$3l0$1@engnntp2.cig.mot.com>
Source record: 66928

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:4394B58C.5DFAB8E9@shaw.ca...
> Steve Nosko wrote:
> >
> > "crb" <anon@net.com> wrote in message
news:dn09hk02r2p@enews1.newsguy.com...
> > > What are the functions of each of these?
> > > [snippitty snip]

> > Crb,
> >
> > These are basically filters. The terminology varies
sometimes
> > for "diplexer" and "duplexer", and they are both used to describe the
same
> > or different things. I'll give the way they are used in my field -
two-way
> > radio and cell phone systems. (Snipped for Brevity)
> > 73, Steve, K,9.D;C'I
>
> Nice answer Steve! I learned a few things myself!
>
> Irv VE6BP

Thanks Irv. Just what I hoped to accomplish. Because my brain is full
and I am unable to get anything else in there, I am trying to get some empty
space and at the same time pass along some of the knowledge I have gained
over the many enjoyable years in Electronics. I do my best to get things
down in a simple, understandable way.
73, Steve, K'9;D.C,I

4228. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 16:48:32 UTC
From: Frank <frank599@nospamtelus.net>
Message-ID: <Ahjlf.234600$ir4.76689@edtnps90>
Source record: 67024

>>Sort of, but not exactly. As I described in another thread, the
>>pitfall is the fact that the phase lengths of the coupler are
>>different. You could set the phase offset to zero at frequency X but
>>when you change to frequency Y, there is a built-in error.
>
> I should have added that you don't do this with a 50 ohm load, but a
> short circuit instead. You want a big reflection with a known phase
> for a calibration standard.

The first step is to establish the accuracy of the test equipment. A short/open at the output port of the directional coupler should produce a frequency independant phase shift between the forward and reverse coupled port. If you are not getting 180/0 deg, then there is something fundamentally wrong with the test set up. Connecting both probes of the 8405A to the same source should establish if any errors exist in the vector voltmeter. Using the BNC/probe adapters is essential to maintain repeatability in your measurements.

Reference HP's 778D coupler at
http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf :

"
Impedance Measurements

The 778D is also well suited for measurements of impedance when used with

the Agilent 8405A vector voltmeter. The technique is described in Application

Note 77-3, Measurement of Complex Impedance, available at your nearest

Agilent sales office. Again, a reflectometry technique is used. With the vector

voltmeter, however, both magnitude and phase angle of the reflection coefficient

can be measured. This setup is shown in Figure 3.

Data can be read from the two meters of the vector voltmeter and transferred

directly to a Smith Chart to provide impedance of such devices as antennas or

other passive components.

"It is many years since I have seen AN77-3, but I seem unable to find a copy on the web.

Frank

4229. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 16:49:14 UTC
From: garigue <garigue@comcast.net>
Message-ID: <vYqdnTsTf7OVXAjenZ2dnUVZ_tKdnZ2d@comcast.com>
Source record: 67025

> This is really weird. The noise stopped! There's no question that when I
> first noticed this some weeks ago that it was linked to turning the PC on,
> and would disappear when I turned it off. I haven't changed anything.

Evil spirits on vacation ......???????

I presently have a severe noise problem on HF ..... every year at this
time ....

Chi-Com Christmas displays ?????? I hope your noise stays away for good
.

Merry Christmas all ..... 73 Tom KI3R Belle Vernon PA

4230. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 17:26:40 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn4hkg$5k5$1@engnntp2.cig.mot.com>
Source record: 66929

At the risk of starting something... Owen, I didn't see this point in your initial post. I've read a few of your posts and you seem to give pretty good explanations.

I thought the answer would be that a wideband Balun (my assumption that the OP is referring to this type) of the type commonly used (Ferrite core & windings) is not recommended for a multi-band antenna where the impedances vary widely. These baluns, I thought, are suitable only for impedances near their design center. For example, a 1:1 balun works well in a 50-50 ohm, 50-75 ohm or 75-75 or 50-33 ohm system. A 4:1 (or perhaps more correctly 1:4) works ok with 50-200. 50-300, 50-133.

Using a 1:1 between tuner and antenna (at either end of the feed line) when the antenna impedance may be 200 or 1000 ohms on some band, causes grief for the balun in the form of poor efficiency and possibly a burned up balun - because the balun is operating in a system impedance much different than this design center. These baluns are not suitable for a wide range of impedances.

Do I need to change my brand of drink, or have I got a reasonable understanding?

Owen,

It is my understanding that (ignoring patterns and focusing initially on the antenna) using a dipole which is not resonant on one of the harmonically related ham bands (I believe the original Windom-circa 1945 and G5RV are in this category) avoids the problem of matching to the very high impedance at the even overtones (a 40M dipole is two half waves on 20M and a high Z). Yes, using ladder line vs. coax helps with this greatly, but then you have this age old problem of the bal to unbal issue.

This, of course, somewhat ignores feed line loss, but this is a first approximation focusing on the antenna initially - and I realize that ignoring feed line loss is not what you do when looking at the WHOLE system.

. I'll have to read your referenced article more fully (next). (:-)

73, Steve, K,9.D;C'I

P.S. For the beginners, A signal has a harmonic. A resonant object (antenna, crystal, resonator, filter, etc) has an overtone - which is a resonance, typically but not necessarily, harmonically related - frequently slightly off the harmonic due to strays.

"Owen Duffy" <owen@no.where> wrote in message news:kpr9p15ucolcauav7ahdjqscudfhusgrr3@4ax.com...

> On Mon, 5 Dec 2005 19:32:03 -0600, "RB" <rbig@bellsouth.nospam.net>
> wrote:
>
>
> >Was just wondering if coax feed with balun at centerpoint would be better
> >than ladderline feed with balun at tuner output (and no, my tuner doesn't
> >have an internal balun).
>
> I can only assume that if you are still asking that question 6 hours
> after I wrote you a response, that you didn't read / understand the
> response and the referenced article!
>
> If that was too hard to understand, the short answer is NO. If you
> want to understand why, go back and read my earlier posting and the
> article.
>
> Owen
> --

4231. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 17:28:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dn4hoa$s8n$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66927

"dansawyeror" wrote -
> After reading this thread it seems there is significant confusion
between E and
> H fields created locally from electric current and the E and H
aspects of a
> passing RF photon stream.
=======================================

When the geometric dimensions of the structures are short compared
with a wavelength, the amps and volts are associated with the NEAR
FIELD and Ohm's Law applies.

The radiation field is so weak in comparison it can be forgotten
about. KISS.

Why does everybody HAVE to unnecessarily complicate matters in order
to understand what really goes on?

What have photons to do with winning a contest? ;o)

Reg.

4232. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 17:28:55 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11pbil7r81dkk7e@corp.supernews.com>
Source record: 66926

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:13799-4395B134-1973@storefull-3254.bay.webtv.net...
> Richard Clarks advice is good. Arnold B. Bailey in "TV and Other
> Receiving Antennas" does a more extensive job of explaining how antennas
> work than most other authors. Wish everybody interested in antennas
> could read Bailey.His catalog of antenna types is convenient too.

It's out of print, but I've requested a copy through interlibrary loan. I'm curious to see what he has to say on the standard V-shaped rabbit ears that have been in use for decades... although one can readily simulate them and see exactly how they perform, I've yet to find anyone who had a good idea as to why rabbit ears haven't traditionally been oriented purely horizontally!

4233. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 18:07:35 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dn4k1a$qh4$1@news.service.uci.edu>
Source record: 66930

Roy Lewallen wrote:

> *Sigh*
>
> Richard Harrison wrote:
>
>> Roy Lewallen, W7EL wrote: "A short while ago, I explained why your
>> Faraday cage doesn`t separate the E and H fields as you claim." n I
>> am misunderstood. I never used the tem Faraday cage. I understand the
>> Faraday cage to be a completely shielded enclosure which could be a
>> metal automobiole body, a steel rebar reinforced concrete structure
>> or a screened room. These all tend to completely block both the
>> E-field and the H-field components of an electromagnetic wave.
>
>
> Sorry, I meant "Faraday screen", which is the term you used, and I used
> in my posting explaining its operation.
>
> If you block either the E or H field, you also block the other. You
> can't independently block one or the other.
>
>> . . .
>
>
>> Why would one pay a lot of extra money for a transformer which
>> eliminated capacitive coupling if it didn`t work, especially in
>> Havana, Cuba?
>
>
> Because in order to "work" it doesn't need to "eliminate capacitive
> coupling". All it needs to do is locally reduce the E/H field ratio,
> which is what it does.
>
> Roy Lewallen, W7EL

It might be useful to also point out the means by which these electric and/or magnetic shields do their job. They do it not so much by blocking as much as by diverting the fields. They serve to conduct the field around the object that is being shielded.

73 de ac6xg

4234. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 18:10:04 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <0uklf.4451$hI1.3077@tornado.socal.rr.com>
Source record: 66931

W. Watson wrote:
> This is really weird. The noise stopped!

Not to worry. It will likely return :-;

4235. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 18:28:30 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dn4l8e$1hji$1@f04n12.cac.psu.edu>
Source record: 66932

W. Watson wrote:

> This is really weird. The noise stopped! There's no question that when I
> first noticed this some weeks ago that it was linked to turning the PC
> on, and would disappear when I turned it off. I haven't changed anything.

Just as a remote possibility, have you changed resolutions, or refresh
rate on your monitor?

- 73 de Mike KB3EIA -

4236. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 18:32:45 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dn4lgd$1d5q$1@f04n12.cac.psu.edu>
Source record: 66933

Bob Miller wrote:

> On Mon, 5 Dec 2005 14:02:03 -0600, "RB" <rbig@bellsouth.nospam.net>
> wrote:
>
>
>>Oooopss----I meant coax fed.
>>
>
>
> If you're really going to feed the antenna with coax, why do you need
> a balun? Just run the coax straight to your tuner coax connection.

Sometimes an antenna needs matched to the coax line. An extreme example is an OCF dipole, which can operate on several bands, but has an impedence of several hundred ohms. the 4:1 or 6:1 balun will match that with the 50 ohm coax.

- 73 de Mike KB3EIA -

4237. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 18:37:04 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <utlbp1te5fg4a7c5f2l22jg42a9vhlg1b2@4ax.com>
Source record: 66934

On Tue, 06 Dec 2005 16:48:32 GMT, "Frank" <frank599@nospamtelus.net>
wrote:

>>>Sort of, but not exactly. As I described in another thread, the
>>>pitfall is the fact that the phase lengths of the coupler are
>>>different. You could set the phase offset to zero at frequency X but
>>>when you change to frequency Y, there is a built-in error.
>>
>> I should have added that you don't do this with a 50 ohm load, but a
>> short circuit instead. You want a big reflection with a known phase
>> for a calibration standard.
>
>The first step is to establish the accuracy of the test equipment. A
>short/open at the output port of the directional coupler should produce a
>frequency independant phase shift between the forward and reverse coupled
>port.

Maybe I misunderstand, but what you seem to be saying is that if I put
Probe A at point X on a transmission line and Probe B at point X+Y
(Y>0), the phase difference with respect to frequency will not change.

The directional coupler is no different, it is sampling the main line
at two physically different locations.

> If you are not getting 180/0 deg, then there is something
>fundamentally wrong with the test set up. Connecting both probes of the
>8405A to the same source should establish if any errors exist in the vector
>voltmeter. Using the BNC/probe adapters is essential to maintain
>repeatability in your measurements.
>
>Reference HP's 778D coupler at
>http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf :
>
>"
>Impedance Measurements
>
>The 778D is also well suited for measurements of impedance when used with
>
>the Agilent 8405A vector voltmeter. The technique is described in
>Application
>
>Note 77-3, Measurement of Complex Impedance, available at your nearest
>
>Agilent sales office. Again, a reflectometry technique is used. With the
>vector

>
>voltmeter, however, both magnitude and phase angle of the reflection
>coefficient
>
>can be measured. This setup is shown in Figure 3.
>
>Data can be read from the two meters of the vector voltmeter and transferred
>
>directly to a Smith Chart to provide impedance of such devices as antennas
>or
>
>other passive components.
>
>
>"It is many years since I have seen AN77-3, but I seem unable to find a copy
>on the web.
>
>Frank

The pertinent pages are here:

http://www.qsl.net/n7ws/Pages%20from%20AN77-3.pdf

4238. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 18:54:32 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <I7llf.235019$zb5.177267@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66935

Cecil,

I do not have a copy of Hecht, but I doubt that he has made any serious mistakes. Certainly he should have no mistakes in an area that is as well understand and widely discussed as plane wave interactions with discontinuities in the medium.

The classic treatment of this problem, found in virtually every college-level textbook on E&M or optics, is to set up the appropriate wave equations, add the boundary conditions, and crank out the answer.

Then there is typically some sort of analysis and discussion that says, "The reflected intensity plus the transmitted intensity is equal to the incident intensity. Energy is conserved." I suspect Hecht provides exactly that sort of description. I know that all of the relevant textbooks I have do so.

I believe you are reading too much into something Hecht is saying, perhaps in an effort to somehow reconcile conservation of energy.

The beauty of the laws of E&M, as expressed by Maxwell's equations and other fundamental properties, is that conservation of energy is automatic, at least in ordinary circumstances. If one correctly solves for the field equations, the energy conservation will come along for free.

Conversely, it is customary to use energy considerations as the primary vehicle for addressing many physical problems in advanced mechanics, quantum mechanics, solid state physics, and other branches of science.

The bottom line is that there are a number of tools available to develop correct solutions to physical problems. Steve Best chose one path, and you choose another. You both come up with the same answer in terms of what can be measured. The mathematical constructs underlying the solution may be different, but those constructs are not directly measurable.

Don't limit your toolbox. Sometimes a screwdriver is easier to use than a monkey wrench.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I thought my intention was obvious, but it seems I failed to communicate.
>

>
> Others on this newsgroup have admonished me for worrying about
> energy and refused to discuss the subject. I thought you were
> doing the same. Sorry. But do you actually have any references
> that contradict "Optics", by Hecht?
>
> In Dr. Best's article, he superposes V1 with V2 such that constructive
> interference energy is needed to complete the superposition. On this
> newsgroup, I asked Dr. Best where that necessary constructive interference
> energy comes from and he didn't know. That's when I went searching for
> references and found them in the field of optics.
>
> Constructive interference energy can be supplied by local sources
> as occurs in W7EL's "Food for Thought #1" with its DC example. Or
> constructive interference energy can be supplied at a point away
> from the source(s) by destructive interference, e.g. wave cancellation
> at the non-reflection surface of a layer of thin-film on glass or
> at a match point in a transmission line.

4239. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 18:57:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <lallf.29703$q%.3130@newssvr12.news.prodigy.com>
Source record: 66936

Reg Edwards wrote:
> What have photons to do with winning a contest? ;o)

Just try winning a contest without them. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

4240. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 19:00:25 UTC
From: eternalsquire@comcast.net
Message-ID: <1133895625.104795.220100@g44g2000cwa.googlegroups.com>
Source record: 66937

Now THAT's a practical idea...

Thanks!

The Eternal Squire

4241. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 19:08:13 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1133896093.884692.18410@z14g2000cwz.googlegroups.com>
Source record: 66938

Dear Eskay,
I have read,and read,and read many differ articles on this
site.

I'm getting that rather than help SOMEONE with their
understanding,

The mood turns to that OF SUPIRIOR intelliect !! Jeepers,
some of us

will ALWAYS be less informed, or not understanding the
"matter".

UNLESS WHAT you can tell someone HELPS THEM SEE HOW

things are.....well, don't bother! We're not all
brains here.

HAMS HELPING HAMS. Don't be sarcastic;it doesn't help !

4242. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 19:11:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <frmbp1tdrhe8b5v2qv8nr15ime6507bmo9@4ax.com>
Source record: 66939

On Tue, 6 Dec 2005 11:26:40 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>At the risk of starting something... Owen, I didn't see this point in your
>initial post. I've read a few of your posts and you seem to give pretty
>good explanations.

The answer was in the graphs in the referenced article. If a reader would be satisfied by a simple answer, the answer is no, it isn't practical. But if they wanted to know why it wasn't practical, the information and a better solution were both in that article which was generally about the issue of whether the traditional wisdom of a dipole, one half wave long at the lowest operating frequency, fed with coax and "loaded up" with an ATU would be a good multiband antenna.

>I thought the answer would be that a wideband Balun (my assumption that the
>OP is referring to this type) of the type commonly used (Ferrite core &
>windings) is not recommended for a multi-band antenna where the impedances
>vary widely. These baluns, I thought, are suitable only for impedances near
>their design center. For example, a 1:1 balun works well in a 50-50 ohm,
>50-75 ohm or 75-75 or 50-33 ohm system. A 4:1 (or perhaps more correctly
>1:4) works ok with 50-200. 50-300, 50-133.

Steve, it is certainly a challenge to implement a balun that works over the range of impedances that would be encountered in a 140' dipole from 1.8 to 30 MHz.

To my mind, the very high coax loss dismisses the solution before you visit the balun problem.

Without detailed analysis, my guess is that the 140' dipole will be far enough off resonance to cause high coax loss on 80m, there is the slimmest chance that it would fall into 30m as a 3 x 1/2 waves, and it is unlikely to have low coax loss on any other band. Hence my statement that it is unlikely to have acceptable coax loss on any band, save possibly one.

>
>Using a 1:1 between tuner and antenna (at either end of the feed line) when
>the antenna impedance may be 200 or 1000 ohms on some band, causes grief for
>the balun in the form of poor efficiency and possibly a burned up balun -
>because the balun is operating in a system impedance much different than
>this design center. These baluns are not suitable for a wide range of
>impedances.

A design and implementation challenge, indeed.

>
>
>
>Do I need to change my brand of drink, or have I got a reasonable
>understanding?
>
>
>
>Owen,
>
> It is my understanding that (ignoring patterns and focusing initially on
>the antenna) using a dipole which is not resonant on one of the harmonically
>related ham bands (I believe the original Windom-circa 1945 and G5RV are in
>this category) avoids the problem of matching to the very high impedance at
>the even overtones (a 40M dipole is two half waves on 20M and a high Z).
>Yes, using ladder line vs. coax helps with this greatly, but then you have
>this age old problem of the bal to unbal issue.
>
>This, of course, somewhat ignores feed line loss, but this is a first
>approximation focusing on the antenna initially - and I realize that
>ignoring feed line loss is not what you do when looking at the WHOLE system.
>
>. I'll have to read your referenced article more fully (next). (:-)

Ok, that is where the answer to the question about coax feed to a multi band dipole lays. The two graphs show (1, 1a) show in an instant that the problem is in the feedline, and other graphs show feedline solutions that are better.

Nevertheless, the balun problem remains if you have an unbalanced ATU.

I think the balun design can't be adequately addressed by considering just passive component between an unbalanced generator and balanced / floating load. A more complete answer is found by modelling the entire system (inc real balun and feedline) as part of the antenna system in NEC. The unbalanced shunt L and the value of the series R and L introduced by real baluns will have different effects depending on the length of the feeder, where it is earthed, how it is coupled to the nominal radiator etc. This approach is interesting in considering whether the balun should be on the tx or ant side of the ATU.

I ran a range of models following my G5RV article at http://www.vk1od.net/G5RV/index.htm exploring baluns in that context, and finding a solution that reduces common mode feedline current significantly is challenging. The closest I came was a W2DU style choke balun that was four times (or more) the traditional lengths, and would reduce common mode feeline current to less than 10% of the nominal radiator current. It is a work in progress!

I lament the unavailability of quality commercial ATUs that deliver uncompromised balanced output. (Yes, I know MFJ have recently released a product, but I did say "quality").

Owen
--

4243. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 19:18:50 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <olobp1pjmbl7vluh61blj74l0mik353kmj@4ax.com>
Source record: 66940

On Tue, 06 Dec 2005 11:37:04 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>Maybe I misunderstand, but what you seem to be saying is that if I put
>Probe A at point X on a transmission line and Probe B at point X+Y
>(Y>0), the phase difference with respect to frequency will not change.
>
>The directional coupler is no different, it is sampling the main line
>at two physically different locations.

With respect, I think you two guys are talking about different kinds
of couplers.

Wes, your earlier description makes is clear that samples in the
coupler you described are located at equidistant from their nearest
ends, but not in the centre, so at different positions in the coupler.
I think the coupled lines type of coupler for lower frequency use
might fit this category.

Frank assumes a coupler where the samples for both ports are taken at
the same physical location on the main line. I think a crossed
waveguide coupler might fit this category (depending on the way the
coupling holes are implemented).

Owen
--

4244. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 19:22:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0yllf.29710$q%.16771@newssvr12.news.prodigy.com>
Source record: 66941

Gene Fuller wrote:
> I do not have a copy of Hecht, but I doubt that he has made any serious
> mistakes.

It would be worth your while to visit a local university and
check out Hecht's chapters on superposition and interference.

> "The reflected intensity plus the transmitted intensity is equal to the
> incident intensity. Energy is conserved." I suspect Hecht provides
> exactly that sort of description.

Much more than that. As you know, irradiance is power/unit-area
and Hecht spends many pages on irradiance and energy.

> I believe you are reading too much into something Hecht is saying,
> perhaps in an effort to somehow reconcile conservation of energy.

Spoken by someone who hasn't even read Hecht? I suspect if you
read Hecht, you would perceive the same information as I. Hecht
is big on conservation of energy and spends many pages discussing
such things involving EM waves.

> The beauty of the laws of E&M, as expressed by Maxwell's equations and
> other fundamental properties, is that conservation of energy is
> automatic, at least in ordinary circumstances.

There is still an underlying Q&A about what happens to the energy
in those waves. The energy concept is in addition to what's already
there, not any kind of replacement for it.

> The bottom line is that there are a number of tools available to develop
> correct solutions to physical problems. Steve Best chose one path, and
> you choose another.

Nope, we chose the same path. Steve just fell off the path and
down the cliff about 2/3 of the way through his articles. Steve
gave us a very good picture of what happens to the energy toward
the load but he gave us a distorted view of what happens to the
energy toward the source. Instead of Steve's one-sided approach,
I presented both sides thus merely expanding what Steve had
already done.

> Don't limit your toolbox.

Funny, just above you seemed to recommend limiting the toolbox
to Maxwell's equations and tried to discourage me from thinking
about energy.
--

73, Cecil, http://www.qsl.net/w5dxp

4245. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 19:37:56 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <oMllf.235208$zb5.115414@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66942

Cecil,

The waves you are so worried about are merely convenient, but
fictitious, adjuncts to your mathematical model.

You need worry only about the energy of real, measurable waves, not
those adjuncts that simplify the math.

The use of such adjuncts is done frequently in solving real problems.
Just don't confuse the internals of the model with physical reality.

73,
Gene,
W4SZ

Cecil Moore wrote:
> There is still an underlying Q&A about what happens to the energy
> in those waves. The energy concept is in addition to what's already
> there, not any kind of replacement for it.

4246. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 19:47:24 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <dn4psf$t7o$1@news.service.uci.edu>
Source record: 66943

Gene Fuller wrote:

> Cecil,
>
> The waves you are so worried about are merely convenient, but
> fictitious, adjuncts to your mathematical model.
>
> You need worry only about the energy of real, measurable waves, not
> those adjuncts that simplify the math.
>
> The use of such adjuncts is done frequently in solving real problems.
> Just don't confuse the internals of the model with physical reality.
>
> 73,
> Gene,
> W4SZ

Might this be an example, Gene?

From "An Energy Analysis at an Impedance Discontinuity in an RF
Transmission Line, Part I"

"100% wave cancellation means 100% energy reflection."

73 de ac6xg

4247. Antennas And Lightning Induced Voltage Transients

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 20:08:43 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <po2dnQQrb_pbcgjenZ2dnUVZ_tydnZ2d@comcast.com>
Source record: 66944

Hello:

We get a lot of lightning strikes around here, and was wondering about this:

Presently have a receive-only random length wire running around the inside
of my attic.

Guess I'm not really too worried about "direct" lightning strikes; if there
is one I imagine I have a lot more to worry about than the radio.

But, does the roof provide any protection from nearby lightning strikes
inducing a high transient voltage
into the indoor attic antenna wire, as compared to if I had the wire antenna
strung outside the house ?
Again, from an induced voltage standpoint concern.

Or, is the fact that it is indoors really meaningless ?

Thanks,
Bob

4248. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 20:31:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <kymlf.26875$dO2.4392@newssvr29.news.prodigy.net>
Source record: 66945

Gene Fuller wrote:
> The waves you are so worried about are merely convenient, but
> fictitious, adjuncts to your mathematical model.

Let's see:
1. Canceled waves are "fictitious adjuncts to my math model".
2. Therefore, they don't need to be canceled, because they
are only "fictitious adjuncts to my math model".
3. Therefore, we can remove whatever is doing the canceling
of those "fictitious adjuncts" without changing anything.
4. Darn, how is it that I can see those "fictitious adjuncts
to my math model" so well that I can't see anything else?

What's wrong with this picture? Could there be a not-so-hidden
contradiction accompanied by confusion of cause and effect?

> You need worry only about the energy of real, measurable waves, not
> those adjuncts that simplify the math.

You don't even know me, Gene. Where do you get the balls to
decide what I need to worry about and what I don't need to
worry about? I have been worried and needing an energy analysis
model for 40 years. I now have one and can now sleep like a baby
at night, but no thanks to you. :-)
--
73, Cecil, http://www.qsl.net/w5dxp

4249. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 21:01:18 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_4395f997@fidonet.org>
Source record: 66946

"Joel Kolstad" bravely wrote to "All" (06 Dec 05 09:28:55)
--- on the heady topic of "Re: Antenna reception theory"

JK> From: "Joel Kolstad" <JKolstad71HatesSpam@yahoo.com>
JK> Xref: core-easynews rec.radio.amateur.antenna:220898

JK> "Richard Harrison" <richardharrison@webtv.net> wrote in message
JK> news:13799-4395B134-1973@storefull-3254.bay.webtv.net...
> Richard Clarks advice is good. Arnold B. Bailey in "TV and Other
> Receiving Antennas" [,,,]

JK> It's out of print, but I've requested a copy through interlibrary
JK> loan. I'm curious to see what he has to say on the standard V-shaped
JK> rabbit ears that have been in use for decades... although one can
JK> readily simulate them and see exactly how they perform, I've yet to
JK> find anyone who had a good idea as to why rabbit ears haven't
JK> traditionally been oriented purely horizontally!

I think the reason why you don't see rabbit ears oriented horizontally
is that they don't seem to work well as dipoles. When standing up they
aren't even a V antenna and at first one would think they are
vertically polarized but they are somewhat directive with a bipolar
pattern. Rabbit ears are a bastardized form of a couple antenna types.

Sometimes mainly one element is responsible for most of the signal
while the other behaves as a reference or ground. For example on low
frequency channels like Ch-3, reception is best if one of the elements
is oriented straight up and the other horizontally pointing in the
direction of the transmitter. This won't work well with Ch-12 and the
standing V is best then.

A*s*i*m*o*v

... Men are men and needs must err. - Euripides

4250. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 21:07:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <j4nlf.29723$q%.13121@newssvr12.news.prodigy.com>
Source record: 66947

Jim Kelley wrote:
> "100% wave cancellation means 100% energy reflection."

That's a no-brainer when quoted in the context of an
RF transmission line. Shame on you for once again quoting
something out of context. If it happened in space, it
would say, "100% wave cancellation means 100% energy
redistribution." as explained on the web pages below.

There are only two directions in a transmission line. If
energy rejected by a mismatched load doesn't make it to
the source, in a lossless system, it must necessarily
be 100% re-reflected. Rho^2 is reflected by the impedance
discontinuity at the match point. That's step one. Step
two is that 100% wave cancellation. Given those two steps,
no reflected energy flows toward the source. Therefore,
it must necessarily have been re-reflected back toward the
load. Since it joins the forward energy wave, we can
measure that is exactly what happens. It's a no-brainer.

Here's the in-context quote.

The destructive interference energy resulting from wave
cancellation at an impedance discontinuity becomes an equal
magnitude of constructive interference in the opposite
direction. Since there are only two directions in a transmission
line, wave cancellation is the equivalent of an energy reflection.
100% wave cancellation means 100% energy reflection. [9]

[9] Quotes from two web pages from the field of optical engineering:

www.mellesgriot.com/products/optics/oc_2_1.htm

"Clearly, if the wavelength of the incident light and the thickness
of the film are such that a phase difference exists between reflections
of p, then reflected wavefronts interfere destructively, and overall
reflected intensity is a minimum. If the two reflections are of equal
amplitude, then this amplitude (and hence intensity) minimum will be
zero."

"In the absence of absorption or scatter, the principle of conservation
of energy indicates all ï¿½lostï¿½ reflected intensity will appear as
enhanced intensity in the transmitted beam. The sum of the reflected and
transmitted beam intensities is always equal to the incident intensity.
This important fact has been confirmed experimentally."

http://micro.magnet.fsu.edu/primer/java/scienceopticsu/interference/waveinteractions/index.html

"... when two waves of equal amplitude and wavelength that are 180-degrees ... out of phase with each other meet, they are not actually annihilated, ... All of the photon energy present in these waves must somehow be recovered or redistributed in a new direction, according to the law of energy conservation ... Instead, upon meeting, the photons are redistributed to regions that permit constructive interference, so the effect should be considered as a redistribution of light waves and photon energy rather than the spontaneous construction or destruction of light."

Note from W5DXP: In an RF transmission line, since there are only two possible directions, the only "regions that permit constructive interference" at an impedance discontinuity is the opposite direction from the direction of destructive interference.
--
73, Cecil, http://www.qsl.net/w5dxp

4251. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 21:22:31 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <juubp1h60np802f032kqqg7k72arb4fsr3@4ax.com>
Source record: 66948

On Tue, 06 Dec 2005 19:18:50 GMT, Owen Duffy <owen@no.where> wrote:

>On Tue, 06 Dec 2005 11:37:04 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>
>>Maybe I misunderstand, but what you seem to be saying is that if I put
>>Probe A at point X on a transmission line and Probe B at point X+Y
>>(Y>0), the phase difference with respect to frequency will not change.
>>
>>The directional coupler is no different, it is sampling the main line
>>at two physically different locations.
>
>With respect, I think you two guys are talking about different kinds
>of couplers.
>
>Wes, your earlier description makes is clear that samples in the
>coupler you described are located at equidistant from their nearest
>ends, but not in the centre, so at different positions in the coupler.
>I think the coupled lines type of coupler for lower frequency use
>might fit this category.
>
>Frank assumes a coupler where the samples for both ports are taken at
>the same physical location on the main line.

May be, but his link:

http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf

shows exactly what I'm talking about in Figure 3. Note the line
stretcher on one sample port. Because I haven't seen the inside of one
of these I don't know where the coupled arms reside with respect to
each other but the fact that H-P shows the line stretcher tells me
that they must have some (unavoidable, if not purposeful) asymmetry.
They claim 4 degree phase tracking but it's unclear to me whether they
mean the coupled arms with respect to the main line or to each other.

> I think a crossed
>waveguide coupler might fit this category (depending on the way the
>coupling holes are implemented).

>
>Owen

4252. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 21:57:22 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <6Pnlf.138047$y_1.50980@edtnps89>
Source record: 66949

"Owen Duffy" <owen@no.where> wrote in message
news:olobp1pjmbl7vluh61blj74l0mik353kmj@4ax.com...
> On Tue, 06 Dec 2005 11:37:04 -0700, Wes Stewart <n7ws*@*yahoo.com>
> wrote:
>
>
>>Maybe I misunderstand, but what you seem to be saying is that if I put
>>Probe A at point X on a transmission line and Probe B at point X+Y
>>(Y>0), the phase difference with respect to frequency will not change.
>>
>>The directional coupler is no different, it is sampling the main line
>>at two physically different locations.
>
> With respect, I think you two guys are talking about different kinds
> of couplers.
>
> Wes, your earlier description makes is clear that samples in the
> coupler you described are located at equidistant from their nearest
> ends, but not in the centre, so at different positions in the coupler.
> I think the coupled lines type of coupler for lower frequency use
> might fit this category.
>
> Frank assumes a coupler where the samples for both ports are taken at
> the same physical location on the main line. I think a crossed
> waveguide coupler might fit this category (depending on the way the
> coupling holes are implemented).
>
> Owen

The type of coupler I am thinking of is indeed where the coupling lines for forward and reflected are in the same physical region. The point I was making refers particularly to the HP 778D; where it is specified in:
http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf
"Data can be read from the two meters of the vector voltmeter and transferred directly to a Smith Chart". Indicating that there is no significant phase error over the nominal bandwidth of the coupler. It is certainly something I have always taken for granted, but in recent years have been spoiled by Agilent's VNAs. Even Matthaei, Young, and Jones' classic text does not get into specifics of the phase response of TEM couplers. If I get a chance in the near future, I will run a phase response of an HP778D coupler, and/or also run an Eagleware simulation of a co-planar WG coupler.

Just read Wes' comments on the line stretcher on the above pdf. I must admit I also wondered about that, but assume it is intended as a cal

adjustment for a short/open standard. Even VNAs, in their non calibrated state, show a pretty good dot on the right/left of the Smith Chart for an open/short in the lower hundreds of MHz.

Incidentally I have tried to access the http://www.qsl.net/n7ws/Pages%20from%20AN77-3.pdf which is unbelievably slow, but I keep getting error messages saying the file is corrupted. I am using a 2.5 Mb ADSL, which is normally pretty fast.

Frank

4253. Re: Antennas And Lightning Induced Voltage Transients

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 22:06:12 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <1K-dnYmsNJzOlgvenZ2dnUVZ_vudnZ2d@comcast.com>
Source record: 66950

MEANINGLESS !!

Robert11 wrote:
> Hello:
>
> We get a lot of lightning strikes around here, and was wondering about this:
>
> Presently have a receive-only random length wire running around the inside
> of my attic.
>
> Guess I'm not really too worried about "direct" lightning strikes; if there
> is one I imagine I have a lot more to worry about than the radio.
>
> But, does the roof provide any protection from nearby lightning strikes
> inducing a high transient voltage
> into the indoor attic antenna wire, as compared to if I had the wire antenna
> strung outside the house ?
> Again, from an induced voltage standpoint concern.
>
> Or, is the fact that it is indoors really meaningless ?
>
>
> Thanks,
> Bob
>
>

4254. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 22:15:34 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <a4olf.235888$zb5.103446@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66951

Cecil,

Sorry, I mistakenly thought the discussion was about technology.
Silly me!

Since it is actually about psychology, not physics, I am outta here.

73,
Gene
W4SZ

Cecil Moore wrote:

> You don't even know me, Gene. Where do you get the balls to
> decide what I need to worry about and what I don't need to
> worry about? I have been worried and needing an energy analysis
> model for 40 years. I now have one and can now sleep like a baby
> at night, but no thanks to you. :-)

4255. Problem with dual band antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 22:18:56 UTC
From: Ed Laughery <laughery@bellsouth.net>
Message-ID: <Y4olf.227$wP3.28@bignews6.bellsouth.net>
Source record: 66952

Hi

I installed a NOS dual band (2m/70cm) thru glass antenna on my Toyota Highlander today. This a Radio Shack antenna that was carried in the stores about two years ago.

I made sure to mount on glass away from defroster lines, no metal film sun screen, and away from major metal. Using my MFJ analyzer, the best SWR on two meters is 5.9 - 6.1, SWR on 70 cm is a 2.0 - 2.2. The interior interface block has a trimmer cap that is working - SWR is affected but will not improve beyond the cited numbers..

I tried sweeping thru a board range of frequencies in the 2 meter band and cannot find a resonant hotspot.

The RS package indicates that the antenna should be 2.0 or less thru the bands with a VSWR around 1.1 at 146.00 and 445.00 MHz.

Any ideas what may be the problem and/or what I might check.

BTW: I checked other antennas with the same analyzer and they read correctly.

Thanks in advance for your consideration.

Ed

4256. Re: Problem with dual band antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 22:29:22 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <EYWdncoSqo5cjQvenZ2dnUVZ_vydnZ2d@comcast.com>
Source record: 66953

In the olden days that antenna required a stub inside your vehicle.
Memory may fail me but if I recall correctly it was about 7 inches long
and attached to the window coupling inside the vehicle.

Do you have such a setup?

Ed Laughery wrote:

> Hi
>
> I installed a NOS dual band (2m/70cm) thru glass antenna on my Toyota
> Highlander today. This a Radio Shack antenna that was carried in the stores
> about two years ago.
>
> I made sure to mount on glass away from defroster lines, no metal film sun
> screen, and away from major metal. Using my MFJ analyzer, the best SWR on
> two meters is 5.9 - 6.1, SWR on 70 cm is a 2.0 - 2.2. The interior
> interface block has a trimmer cap that is working - SWR is affected but will
> not improve beyond the cited numbers..
>
> I tried sweeping thru a board range of frequencies in the 2 meter band and
> cannot find a resonant hotspot.
>
> The RS package indicates that the antenna should be 2.0 or less thru the
> bands with a VSWR around 1.1 at 146.00 and 445.00 MHz.
>
> Any ideas what may be the problem and/or what I might check.
>
> BTW: I checked other antennas with the same analyzer and they read
> correctly.
>
> Thanks in advance for your consideration.
>
> Ed
>
>

4257. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 22:34:57 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn53mhivh1@engnntp2.cig.mot.com>
Source record: 66954

"Wes Stewart" <n7ws*@*yahoo.com> wrote in message
news:juubp1h60np802f032kqqg7k72arb4fsr3@4ax.com...
> On Tue, 06 Dec 2005 19:18:50 GMT, Owen Duffy <owen@no.where> wrote:
>
> >On Tue, 06 Dec 2005 11:37:04 -0700, Wes Stewart <n7ws*@*yahoo.com>
> >wrote:
> >
> >
> >>Maybe I misunderstand, but what you seem to be saying is that if I put
> >>Probe A at point X on a transmission line and Probe B at point X+Y
> >>(Y>0), the phase difference with respect to frequency will not change.
> >>
> >>The directional coupler is no different, it is sampling the main line
> >>at two physically different locations.
> >
> >With respect, I think you two guys are talking about different kinds
> >of couplers.
> >
> >...Owen's coupler location discussion...>
> May be, but his link:
>
> http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf
>
> shows exactly what I'm talking about in Figure 3. Note the line
> stretcher on one sample port. Because I haven't seen the inside of one
> of these I don't know where the coupled arms reside with respect to
> each other but the fact that H-P shows the line stretcher tells me
> that they must have some (unavoidable, if not purposeful) asymmetry.
> They claim 4 degree phase tracking but it's unclear to me whether they
> mean the coupled arms with respect to the main line or to each other.

I have done this type of measurement and the coupler is somewhat
un-important in regard to where on the line its samples are taken from. The
line stretcher does the compensation to place both samples at the same
point on the main line. It is set in a calibration process to get to that
point (seems to mee only a short is required). Memory is starting to fade
here, but if you want the samples to be "at the plane of the DUT" then you
either must use two line stretchers or use the vector voltmeter capability
to compensate for the difference in sample location vs. DUT location. If I
recall correctly, this is simply a phase offset and the old HP vector
voltmeter has such an offset capability.

Look at it this way. You want the FWD and REF phases to be at the DUT. To
do this you must put an equal (electrical) length of line in all three
sections of line - the desired, the FWD sample and the reverse sample. I

admit the reflected part has an intuitive glitch that I can't resolve at this time since it is always longer, but I know this works. You can sweep the set-up and the phase of the two samples will sit right there on that of a short . This rells you that the samples are "at the DUT".

Right??

73, Steve, K,9.D;C'I

4258. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 23:05:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <LOolf.32063$tV6.9624@newssvr27.news.prodigy.net>
Source record: 66955

Gene Fuller wrote:
> Sorry, I mistakenly thought the discussion was about technology.
> Silly me!

We wouldn't have technology without the human need and
drive to understand nature. Many great scientists were
textbook examples of O-C personalities.
--
73, Cecil http://www.qsl.net/w5dxp

4259. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 23:13:35 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <te6cp117n6bciqvecjhvnkacmm51jmqv93@4ax.com>
Source record: 66956

On Tue, 06 Dec 2005 14:22:31 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>May be, but his link:
>
>http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf
>
>shows exactly what I'm talking about in Figure 3. Note the line
>stretcher on one sample port. Because I haven't seen the inside of one
>of these I don't know where the coupled arms reside with respect to
>each other but the fact that H-P shows the line stretcher tells me
>that they must have some (unavoidable, if not purposeful) asymmetry.
>They claim 4 degree phase tracking but it's unclear to me whether they
>mean the coupled arms with respect to the main line or to each other.

I could be wrong, but I think that 4 deg seems part of the tolerance
of the phase alignment of the two sample ports wrt each other over the
frequency range. Perhaps this is a coupler where the ports are
approximately in phase, and perhaps the line strether is to adjust
phase of forward and reflected ports to create a new reference plane
where it is needed or convenient to the measurement.

Owen
--

4260. One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 23:14:22 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <iXolf.32064$tV6.8624@newssvr27.news.prodigy.net>
Source record: 66957

A couple of days ago, my power failed right in the middle of a
football game. I just happen to have a 12v deep discharge battery
and a 12v B&W TV. I plugged it in, extended the two-foot telescoping
antenna and, wonders of wonders, I was receiving a very good vhf
TV signal from about 40 miles away. The game went on and after
awhile the power came back on. That good TV picture simultaneously
disappeared along with the sound. There may be a lesson there somewhere.
--
73, Cecil http://www.qsl.net/w5dxp

4261. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 23:28:15 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <cd7cp11f44fr6g1fic2fntlog0ldpvurbv@4ax.com>
Source record: 66958

On Tue, 06 Dec 2005 23:14:22 GMT, Cecil Moore <mycall@arrl.net> wrote:

>A couple of days ago, my power failed right in the middle of a
>football game. I just happen to have a 12v deep discharge battery
>and a 12v B&W TV. I plugged it in, extended the two-foot telescoping
>antenna and, wonders of wonders, I was receiving a very good vhf
>TV signal from about 40 miles away. The game went on and after
>awhile the power came back on. That good TV picture simultaneously
>disappeared along with the sound. There may be a lesson there somewhere.

I don't think you were telling us that the battery went flat at that
moment, so...

Don't you have digital television? Best thing since sliced bread.

I don't know if you can receive analog television beyond the digital
coverage ranges, but you probably wouldn't want to watch it.

Digital TV makes weak signals most watchable, DVD quality at weak
signals.

I use it and I am only 4km from the transmitter, but that is another
situation where it works a treat, ghost free pictures close to the
tranmitter in the presence of local reflections (hills, water towers
etc).

Owen
--

4262. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-06 23:33:19 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <3dplf.246$Tg2.59@newsread1.news.pas.earthlink.net>
Source record: 66959

Michael Coslo wrote:

>
>
> W. Watson wrote:
>
>> This is really weird. The noise stopped! There's no question that when
>> I first noticed this some weeks ago that it was linked to turning the
>> PC on, and would disappear when I turned it off. I haven't changed
>> anything.
>
>
>
> Just as a remote possibility, have you changed resolutions, or refresh
> rate on your monitor?
>
>
> - 73 de Mike KB3EIA -
>
Good question. I recall trying to change, unsuccessfully. Hmmmmm.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in arid or desert country? Check your
boots well to see if you have a scorpion in them.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4263. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 00:07:34 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn5946mus1@engnntp2.cig.mot.com>
Source record: 66960

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:6Pnlf.138047$y_1.50980@edtnps89...
>
>
> The type of coupler I am thinking of is indeed where the coupling lines
for
> forward and reflected are in the same physical region. The point I was
> making refers particularly to the HP 778D; where it is specified in:
> http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf
> "Data can be read from the two meters of the vector voltmeter and
> transferred directly to a Smith Chart". Indicating that there is no
> significant phase error over the nominal bandwidth of the coupler.

The old vector voltmeter has a phase offset ability to compensate.

> Just read Wes' comments on the line stretcher on the above pdf. I must
> admit I also wondered about that, but assume it is intended as a cal
> adjustment for a short/open standard.

See my previous post on this. It IS used to get both samples "At the
measurement plane."

73, Steve, K,9.D;C'I

4264. Re: Antennas And Lightning Induced Voltage Transients

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 00:13:04 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn59eg$n4m$1@engnntp2.cig.mot.com>
Source record: 66961

"Robert11" <rgsros@notme.com> wrote in message
news:po2dnQQrb_pbcgjenZ2dnUVZ_tydnZ2d@comcast.com...
> Hello:
>
> We get a lot of lightning strikes around here, and was wondering about
this:
>
> Presently have a receive-only random length wire running around the inside
> of my attic....
>
> But, does the roof provide any protection ...
>
> Or, is the fact that it is indoors really meaningless ?
> Thanks, Bob

The roof has absolutely no significant magnetic properties, right? SO...
the high current of the lightning is the "primary" of a transformer. The
wire in your attic is the "secondary" of a transformer. A pretty poor
transformer, but with that current, it'll induce lots'a voltage in your
wire...roof or no roof. Right?

73, Steve, K,9.D;C'I

4265. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 02:00:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qcgcp1p4djo1v34ab2o697eellht04d0jj@4ax.com>
Source record: 66962

On Tue, 06 Dec 2005 16:34:30 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

>This is really weird. The noise stopped!
Classic indication of a bad ground, or a ground loop.

>I haven't changed anything.
And the problem hasn't gone away either.

73's
Richard Clark, KB7QHC

4266. Re: Antennas And Lightning Induced Voltage Transients

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 02:04:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dn5fur$g52$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66963

The roof protects the antenna from lightning, even the sneaky stuff.
All you have to worry about is lightning striking the roof and
yourself if you are not under it.

Reg.

4267. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 05:05:51 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <P4ulf.328$Tg2.224@newsread1.news.pas.earthlink.net>
Source record: 66964

Richard Clark wrote:

> On Tue, 06 Dec 2005 16:34:30 GMT, "W. Watson"
> <wolf_tracks@invalid.com> wrote:
>
>
>>This is really weird. The noise stopped!
>
> Classic indication of a bad ground, or a ground loop.
>
>
>>I haven't changed anything.
>
> And the problem hasn't gone away either.
>
> 73's
> Richard Clark, KB7QHC
>
Well, I did change something, as I finally recall now (as prompted by M. Coso's post). I did put a new (used) monitor on that computer about 10-14 days ago. Maybe it had some affect. Dunno. I guess I could always try the original one. Tomorrow.

--
Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

Traveling in arid or desert country? Check your
boots well to see if you have a scorpion in them.
-- Survivorman, Discovery (SCI) Channel

Web Page: <home.earthlink.net/~mtnviews>

4268. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 05:41:25 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43967605.2030902@comcast.net>
Source record: 66965

Wes,

The file reports an error. Can you load it?

Thanks very much. Dan

Wes Stewart wrote:
> On Tue, 06 Dec 2005 16:48:32 GMT, "Frank" <frank599@nospamtelus.net>
> wrote:
>
>
>>>>Sort of, but not exactly. As I described in another thread, the
>>>>pitfall is the fact that the phase lengths of the coupler are
>>>>different. You could set the phase offset to zero at frequency X but
>>>>when you change to frequency Y, there is a built-in error.
>>>
>>>I should have added that you don't do this with a 50 ohm load, but a
>>>short circuit instead. You want a big reflection with a known phase
>>>for a calibration standard.
>>
>>The first step is to establish the accuracy of the test equipment. A
>>short/open at the output port of the directional coupler should produce a
>>frequency independant phase shift between the forward and reverse coupled
>>port.
>
>
> Maybe I misunderstand, but what you seem to be saying is that if I put
> Probe A at point X on a transmission line and Probe B at point X+Y
> (Y>0), the phase difference with respect to frequency will not change.
>
> The directional coupler is no different, it is sampling the main line
> at two physically different locations.
>
>
>
>>If you are not getting 180/0 deg, then there is something
>>fundamentally wrong with the test set up. Connecting both probes of the
>>8405A to the same source should establish if any errors exist in the vector
>>voltmeter. Using the BNC/probe adapters is essential to maintain
>>repeatability in your measurements.
>>
>>Reference HP's 778D coupler at
>>http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf :
>>
>>"

>>Impedance Measurements
>>
>>The 778D is also well suited for measurements of impedance when used with
>>
>>the Agilent 8405A vector voltmeter. The technique is described in
>>Application
>>
>>Note 77-3, Measurement of Complex Impedance, available at your nearest
>>
>>Agilent sales office. Again, a reflectometry technique is used. With the
>>vector
>>
>>voltmeter, however, both magnitude and phase angle of the reflection
>>coefficient
>>
>>can be measured. This setup is shown in Figure 3.
>>
>>Data can be read from the two meters of the vector voltmeter and transferred
>>
>>directly to a Smith Chart to provide impedance of such devices as antennas
>>or
>>
>>other passive components.
>>
>>
>>"It is many years since I have seen AN77-3, but I seem unable to find a copy
>>on the web.
>>
>>Frank
>
>
> The pertinent pages are here:
>
> http://www.qsl.net/n7ws/Pages%20from%20AN77-3.pdf
>
>

4269. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 06:42:21 UTC
From: Steveo <steveo-hed@excite.com>
Message-ID: <1133937741.627947.261920@o13g2000cwo.googlegroups.com>
Source record: 66966
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Cecil Moore wrote:

<bitch snipped>

Hey Cecil;

Are you into mutual jacking???

4270. http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 06:53:49 UTC
From: Steveo <steveo-hed@excite.com>
Message-ID: <1133938429.122733.52720@g43g2000cwa.googlegroups.com>
Source record: 66967
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

http://niggermania.com/

4271. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 07:35:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0n3dp1hsslgagsu0tv1devo3jl6g8tobn6@4ax.com>
Source record: 66968

On Wed, 07 Dec 2005 05:05:51 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

>Maybe it had some affect. Dunno. I guess I could always try the
>original one. Tomorrow.

Hi OM,

It could (and that would be a good check), but my guess is a change of
weather will make more difference. If so, we go into the third chorus
of
Classic indication of a bad ground, or a ground loop.

A bad ground will stay with you for a very long time. A ground loop
can come or go with the same appearance of:
love,
superstition,
the deal of a poker hand,
or a political forecast.

73's
Richard Clark, KB7QHC

4272. Universal Aluminum Tower Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 09:06:47 UTC
From: Bob <none@thistime>
Message-ID: <EdidnV-y4cu0OwvenZ2dnUVZ_tmdnZ2d@giganews.com>
Source record: 66969

Could anyone who owns one of these towers please measure the diameter the of tubing leg for me? I am considering a purchase but need to know if it is compatible with some presently owned hardware.
Thanks for your help,
Bob

4273. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 11:25:18 UTC
From: KC1DI <elbc@pivot.net>
Message-ID: <op.s1evcgyu8wtphl@elbc-crz2m9noal>
Source record: 66970

Hi,

Given the circumstances you have.. I would give some thought about putting up a vertically mounted Small Transmitting loop such as the MFJ. Will it work as good as a Vertical? , not one that has a good radial system under it and a clear shout at the horizon.. but it sounds to me like it might be just right for your needs.. Give them a Look I built one here and used it for a couple of years mounted only 3 feet above ground and it worked surpizingly well , considering it's size about 3' in diamiter . If I were in your situation I'd mount it about 1 or 2 feet above the trailer roof.
Hope this helps,
73 DAVE KC1DI

On Fri, 02 Dec 2005 21:28:26 -0500, <eternalsquire@comcast.net> wrote:

> Hi,
>
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!
>
> Does anyone know of a decent commercial design for less than $1000 for
> a free standing 30 to 40 foot support that can take this darn wind???
>
> Thanks,
>
> The Eternal Squire
>

--
Using Opera's revolutionary e-mail client: http://www.opera.com/mail/

4274. Re: Short coax interconnections - phase implications??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 11:28:08 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <Ir4L6w.CLK@bath.ac.uk>
Source record: 66971
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Paul Burridge wrote:

> Hello guys,
>
> I recently picked up an old vector network analyser in working order
> but minus the 3 interconnects between it and the
> transmission/reflection bridge. These are specified in the manual to
> be exactly 24" long, 50 ohms and terminated by N-type plugs.
> I've been told the length of these patch leads is quite critical to
> getting accurate measurements with this VNA, but am at a loss to work
> out why 24" is specified when the frequency range of this device is
> 4Mhz to 1300Mhz. If it were only capable of measuring at one fixed
> frequency, I could understand the need for a specifically cut length
> of some fraction of a wavelength.
> Can anyone explain the relevance of 24" in this context?
> Also, will *any* 50 ohm coax suffice for this purpose or has it got to
> be something special?
> Thanks,
> P.

If they specify a physical length (24"), and nothing else will do, then the type of coax is absolutely critical as its velocity factor will determine the electrical length.

However I suspect the bridge output is not at signal frequency but DC so the cables will not be critical. It is very difficult to see how they could make it work to 4GHz with several wavelengths of coax in the signal path, acting as an impedance transformer. Two feet is a significant length even at HF, and will shift the phases considerably.

vy 73

Andy, M1EBV

4275. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 13:31:32 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <7todp1t48dob2rc4k4r9ut3iqkj8q5a2kd@4ax.com>
Source record: 66972

Let's try again... I've placed the file here:

http://users.triconet.org/wesandlinda/Pages_from_AN77-3.pdf

4276. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 13:54:59 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <TQBlf.235241$ir4.229381@edtnps90>
Source record: 66973

>> The type of coupler I am thinking of is indeed where the coupling lines
> for
>> forward and reflected are in the same physical region. The point I was
>> making refers particularly to the HP 778D; where it is specified in:
>> http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf
>> "Data can be read from the two meters of the vector voltmeter and
>> transferred directly to a Smith Chart". Indicating that there is no
>> significant phase error over the nominal bandwidth of the coupler.
>
> The old vector voltmeter has a phase offset ability to compensate.
>
>
>> Just read Wes' comments on the line stretcher on the above pdf. I must
>> admit I also wondered about that, but assume it is intended as a cal
>> adjustment for a short/open standard.
>
> See my previous post on this. It IS used to get both samples "At the
> measurement plane."
>
> 73, Steve, K,9.D;C'I

Ok, Steve, makes sense. Anyway, have re-visited Matthaei et al, and also "Foundations for Microstrip Circuit Design", by T. C. Edwards (Edwards does appear to contain an error referring to "j-omega", which should simply be "omega"). Both texts agree on the expression for coupling on a single section, quarter wave, TEM mode, coupled transmission line. Also realized that the equation does contain a frequency parameter.

Running an analysis in MathCAD, for a 20 dB coupler with design center at 150 MHz, produces some interesting results:

Coupling at 100 MHz, and 200 MHz = -22.5 dB;

Maximum phase error -- at band edges = +/- 2.5 degrees.

Increasing the frequency range of analysis from 50 to 250 MHz shows a dramatic drop in coupling amplitude, at these frequency limits, to 32 dB. Phase error, however, does not seem to be effected very much; peaking at +/- 2.8 degrees, and following what appears to be a sinusoidal curve.

From experience I know that coupler directivity degrades significantly beyond the design bandwidth. Edwards does state: " Values of directivity, on microstrip, beyond 12 to 14 dB are difficult to achieve". Co-planar structures are much better, and can easily be analyzed with Genesys' 2.5D EM simulations. Without access to HFSS, or similar FEM programs, I doubt directivity could be calculated for coaxial structures.

The main problem, with operation of a coupler beyond its design bandwidth, appears to be its loss of coupling. This, combined with degradation of directivity, would certainly account for very large phase errors.

Frank

4277. Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 14:14:32 UTC
From: Jimmy <fmuta@hotmail.com>
Message-ID: <1133964872.439314.98450@g49g2000cwa.googlegroups.com>
Source record: 66974

Please excuse a curious newbie. This photo is from a neighbor's roof top. What kind of antenna is this?
http://www.keepmyfile.com/image/399e1e252372

Thanks.

4278. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 14:32:11 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <dn6rpa$1eoo$1@f04n12.cac.psu.edu>
Source record: 66975

UHF TV antenna. Stacked "bowties" over a plane reflector. It's a cheap low gain directional antenna used for UHF TV reception.

--
John Passaneau
Penn State University
jxp16@psu.edu
"Jimmy" <fmuta@hotmail.com> wrote in message
news:1133964872.439314.98450@g49g2000cwa.googlegroups.com...
> Please excuse a curious newbie. This photo is from a neighbor's roof
> top. What kind of antenna is this?
> http://www.keepmyfile.com/image/399e1e252372
>
> Thanks.
>

4279. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 14:38:08 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <-cGdncPeB7NSbgveRVn-gA@comcast.com>
Source record: 66876

Expensive VHF/UHF collinear.

Jimmy wrote:
> Please excuse a curious newbie. This photo is from a neighbor's roof
> top. What kind of antenna is this?
> http://www.keepmyfile.com/image/399e1e252372
>
> Thanks.
>

4280. WTB: Quantum Phaser & Quantum Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 15:07:15 UTC
From: David Austerman <daveaust@pol.net>
Message-ID: <0640fc360c32ce3a72001a703ff242e6.32924@mygate.mailgate.org>
Source record: 66877
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

Wondering if anybody has a Quantum Loop or Quantum Phaser they are not using and might want to sell. Thanks, dave austerman, N5WNM

--
Posted via Mailgate.ORG Server - http://www.Mailgate.ORG

4281. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 16:05:23 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn7183$19c$1@engnntp2.cig.mot.com>
Source record: 66879

I'll take that as a yes (to my question, not the OP's).
73, Steve, K9DCI

You've got a lot of interesting stuff on your site. Too bad I don't have
the time to read it all.

"Owen Duffy" <owen@no.where> wrote in message
news:frmbp1tdrhe8b5v2qv8nr15ime6507bmo9@4ax.com...
> On Tue, 6 Dec 2005 11:26:40 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >At the risk of starting something... Owen, I didn't see this point in
your
> >initial post. I've read a few of your posts and you seem to give pretty
> >good explanations.
>
> The answer was in the graphs in the referenced article. If a reader
> would be satisfied by a simple answer, the answer is no, it isn't
> practical. But if they wanted to know why it wasn't practical, the
> information and a better solution were both in that article which was
> generally about the issue of whether the traditional wisdom of a
> dipole, one half wave long at the lowest operating frequency, fed with
> coax and "loaded up" with an ATU would be a good multiband antenna.
>
> >I thought the answer would be that a wideband Balun (my assumption that
the
> >OP is referring to this type) of the type commonly used (Ferrite core &
> >windings) is not recommended for a multi-band antenna where the
impedances
> >vary widely. These baluns, I thought, are suitable only for impedances
near
> >their design center. For example, a 1:1 balun works well in a 50-50
ohm,
> >50-75 ohm or 75-75 or 50-33 ohm system. A 4:1 (or perhaps more correctly
> >1:4) works ok with 50-200. 50-300, 50-133.
>
> Steve, it is certainly a challenge to implement a balun that works
> over the range of impedances that would be encountered in a 140'
> dipole from 1.8 to 30 MHz.
>
> To my mind, the very high coax loss dismisses the solution before you
> visit the balun problem.
>
> Without detailed analysis, my guess is that the 140' dipole will be
> far enough off resonance to cause high coax loss on 80m, there is the

> slimmest chance that it would fall into 30m as a 3 x 1/2 waves, and it
> is unlikely to have low coax loss on any other band. Hence my
> statement that it is unlikely to have acceptable coax loss on any
> band, save possibly one.
>
> >
> >Using a 1:1 between tuner and antenna (at either end of the feed line)
when
> >the antenna impedance may be 200 or 1000 ohms on some band, causes grief
for
> >the balun in the form of poor efficiency and possibly a burned up balun -
> >because the balun is operating in a system impedance much different than
> >this design center. These baluns are not suitable for a wide range of
> >impedances.
>
> A design and implementation challenge, indeed.
>
> >
> >
> >
> >Do I need to change my brand of drink, or have I got a reasonable
> >understanding?
> >
> >
> >
> >Owen,
> >
> > It is my understanding that (ignoring patterns and focusing initially
on
> >the antenna) using a dipole which is not resonant on one of the
harmonically
> >related ham bands (I believe the original Windom-circa 1945 and G5RV are
in
> >this category) avoids the problem of matching to the very high impedance
at
> >the even overtones (a 40M dipole is two half waves on 20M and a high Z).
> >Yes, using ladder line vs. coax helps with this greatly, but then you
have
> >this age old problem of the bal to unbal issue.
> >
> >This, of course, somewhat ignores feed line loss, but this is a first
> >approximation focusing on the antenna initially - and I realize that
> >ignoring feed line loss is not what you do when looking at the WHOLE
system.
> >
> >. I'll have to read your referenced article more fully (next). (:-)
>
> Ok, that is where the answer to the question about coax feed to a
> multi band dipole lays. The two graphs show (1, 1a) show in an instant
> that the problem is in the feedline, and other graphs show feedline

> solutions that are better.
>
> Nevertheless, the balun problem remains if you have an unbalanced ATU.
>
> I think the balun design can't be adequately addressed by considering
> just passive component between an unbalanced generator and balanced /
> floating load. A more complete answer is found by modelling the entire
> system (inc real balun and feedline) as part of the antenna system in
> NEC. The unbalanced shunt L and the value of the series R and L
> introduced by real baluns will have different effects depending on the
> length of the feeder, where it is earthed, how it is coupled to the
> nominal radiator etc. This approach is interesting in considering
> whether the balun should be on the tx or ant side of the ATU.
>
> I ran a range of models following my G5RV article at
> http://www.vk1od.net/G5RV/index.htm exploring baluns in that context,
> and finding a solution that reduces common mode feedline current
> significantly is challenging. The closest I came was a W2DU style
> choke balun that was four times (or more) the traditional lengths, and
> would reduce common mode feeline current to less than 10% of the
> nominal radiator current. It is a work in progress!
>
> I lament the unavailability of quality commercial ATUs that deliver
> uncompromised balanced output. (Yes, I know MFJ have recently released
> a product, but I did say "quality").
>
> Owen
> --

4282. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 16:09:33 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn71ft$1di$1@engnntp2.cig.mot.com>
Source record: 66878

Not clear enough to see if it is a UHF TV or not. Looks sort of like the
broadband antennas around here. Unusual mast arrangement for this region
near Chicago.
73, Steve, K,9.D;C'I

"Jimmy" <fmuta@hotmail.com> wrote in message
news:1133964872.439314.98450@g49g2000cwa.googlegroups.com...
> Please excuse a curious newbie. This photo is from a neighbor's roof
> top. What kind of antenna is this?
> http://www.keepmyfile.com/image/399e1e252372
>
> Thanks.
>

4283. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 17:34:43 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <j2jj63-o9h.ln1@p400bob.personal.cox.net>
Source record: 66881

Up comes the RF noise floor.... The big problem that affects any AR operation in urban areas...

I have a dirty insulator somewhere nearby. Rain helps a lot! It is however a much greater source of noisie than the PC - so I dont need to fix the PC yet..

<grin>

Bob W5/VK2YQA

Cecil Moore wrote:
>
>
> A couple of days ago, my power failed right in the middle of a
> football game. I just happen to have a 12v deep discharge battery
> and a 12v B&W TV. I plugged it in, extended the two-foot telescoping
> antenna and, wonders of wonders, I was receiving a very good vhf
> TV signal from about 40 miles away. The game went on and after
> awhile the power came back on. That good TV picture simultaneously
> disappeared along with the sound. There may be a lesson there somewhere.

4284. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 17:47:28 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <scFlf.33929$wi2.33514@bignews1.bellsouth.net>
Source record: 66880

Channel Master 4221.....your neighbor is trying for HDTV from his local air
TV stations!!!

-Bill

"Jimmy" <fmuta@hotmail.com> wrote in message
news:1133964872.439314.98450@g49g2000cwa.googlegroups.com...
> Please excuse a curious newbie. This photo is from a neighbor's roof
> top. What kind of antenna is this?
> http://www.keepmyfile.com/image/399e1e252372
>
> Thanks.
>

4285. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 19:11:08 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <dn7c4a$1i4u$1@f04n12.cac.psu.edu>
Source record: 66882

"Amos Keag" <A.K01@comcast.net> wrote in message
news:-cGdncPeB7NSbgveRVn-gA@comcast.com...
> Expensive VHF/UHF collinear.
>
> Jimmy wrote:
> > Please excuse a curious newbie. This photo is from a neighbor's roof
> > top. What kind of antenna is this?
> > http://www.keepmyfile.com/image/399e1e252372
> >
> > Thanks.
> >
>

For sure not VHF. They may be expensive now with HD TV, but in my day they
were cheap UHF TV antennas in Michigan, my home state.

--
John Passaneau
Penn State University
jxp16@psu.edu

4286. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 19:40:16 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <sodep1hra1ve3n9vdpv2fnbcjdts13g8uf@4ax.com>
Source record: 66883

On Tue, 06 Dec 2005 23:13:35 GMT, Owen Duffy <owen@no.where> wrote:

>On Tue, 06 Dec 2005 14:22:31 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>
>>May be, but his link:
>>
>>http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf
>>
>>shows exactly what I'm talking about in Figure 3. Note the line
>>stretcher on one sample port. Because I haven't seen the inside of one
>>of these I don't know where the coupled arms reside with respect to
>>each other but the fact that H-P shows the line stretcher tells me
>>that they must have some (unavoidable, if not purposeful) asymmetry.
>>They claim 4 degree phase tracking but it's unclear to me whether they
>>mean the coupled arms with respect to the main line or to each other.
>
>I could be wrong, but I think that 4 deg seems part of the tolerance
>of the phase alignment of the two sample ports wrt each other over the
>frequency range.

I tend to agree, but as someone who used to write specs and then sit
back and watch vendors try to skirt them, I'm always dubious. :-)

>Perhaps this is a coupler where the ports are
>approximately in phase, and perhaps the line strether is to adjust
>phase of forward and reflected ports to create a new reference plane
>where it is needed or convenient to the measurement.

I think what's being missed in this discussion is this: The 8405 has
a phase offset adjustment that can make -any- relative phase read 180
degrees on the meter. So you could put a short on 100 feet (30.48m)
and adjust the phase offset to make the meter read 180 deg. This
would be fine until you changed frequency then you're in trouble.
That same effect is the reason for adding a line stretcher; it's to
make that 180 degree relationship track with respect to frequency.

Paragraph 2 of the document I provided explains this nicely.

I've built reflectometers (many times) where dual couplers were not
available and two back-to-back singles were used. (Sometimes, three
were used with the added one in a feedback loop used to improve the
source match of the generator) I can guarantee you that the two
coupled arms didn't phase track and that is the general case that I
was trying to put forth at the outset of this discussion.

4287. Principles of operation for dual band vertical antenna (2m/70cm)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 21:53:22 UTC
From: Ed Laughery <laughery@bellsouth.net>
Message-ID: <0PIlf.62499$Y82.24877@bignews4.bellsouth.net>
Source record: 66884

Hi

Am I correct that in a dual band mobile antenna for 2M/70 cm - the lower portion of the antenna is cut for 70 CM and the entire antenna including the coiled portion is used for two meters? Does all or a portion of the coil add to the length for either frequency?

Thanks for your help.

Ed AD5JV

4288. Re: Principles of operation for dual band vertical antenna (2m/70cm)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 22:41:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <6yJlf.32331$tV6.23801@newssvr27.news.prodigy.net>
Source record: 66885

Ed Laughery wrote:
> Am I correct that in a dual band mobile antenna for 2M/70 cm - the lower
> portion of the antenna is cut for 70 CM and the entire antenna including the
> coiled portion is used for two meters? Does all or a portion of the coil
> add to the length for either frequency?

For mine, the coil acts as a loading coil on 2m and a phasing coil on 70cm.
--
73, Cecil http://www.qsl.net/w5dxp

4289. Re: Universal Aluminum Tower Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 23:24:41 UTC
From: BillJ <w3fi@nwboronet.com>
Message-ID: <YaKlf.360$Dh6.1842@eagle.america.net>
Source record: 66886

Bob wrote:
> Could anyone who owns one of these towers please measure the diameter the of
> tubing leg for me? I am considering a purchase but need to know if it is
> compatible with some presently owned hardware.
> Thanks for your help,
> Bob
>
>
It depends on which section you use. The sections are numbered by the
number of inches one each leg of the triangle. My base is 22 inches and
a 50 ft. tower. Let me know and I will measure. Excellent tower.

4290. Re: Principles of operation for dual band vertical antenna (2m/70cm)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-07 23:59:53 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <dn7t1pltm1@engnntp2.cig.mot.com>
Source record: 66887

There are several types, so you need to give a better description of the one
you refer to.
The "Hershey kiss" one I have looks like a 2M 1/4 wave, but with a small,
3-4 turn coil at the base. It appears to be "5/8" on 440 and "1/4" wave
on 2. However, on 440 the 5/8 needs some series inductance to tune out the
capacitance of the 5/8. With this inductance in there, the 2M 1/4 wave has
un needed loading, so it has to be shortened for a better match. It all
fits. The frequency ratio is ~~ 3:4 and 5/8 is less that 3/4, so it is
shorter than both 1/4 and 3/4... Better get out the yard stick again and
verify my recollection...

73, Steve, K,9.D;C'I

"Ed Laughery" <laughery@bellsouth.net> wrote in message
news:0PIlf.62499$Y82.24877@bignews4.bellsouth.net...
> Hi
>
> Am I correct that in a dual band mobile antenna for 2M/70 cm - the lower
> portion of the antenna is cut for 70 CM and the entire antenna including
the
> coiled portion is used for two meters? Does all or a portion of the coil
> add to the length for either frequency?
>
> Thanks for your help.
>
> Ed AD5JV
>
>

4291. Re: Principles of operation for dual band vertical antenna (2m/70cm)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 01:25:14 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <B8-dnQ536KjmFgreRVn-uw@comcast.com>
Source record: 66888

I think the Larsen operates as a loaded 2 meter, 1/2 wavelength
equivalent, and as a 2 elrment collinear on 440.

Ed Laughery wrote:
> Hi
>
> Am I correct that in a dual band mobile antenna for 2M/70 cm - the lower
> portion of the antenna is cut for 70 CM and the entire antenna including the
> coiled portion is used for two meters? Does all or a portion of the coil
> add to the length for either frequency?
>
> Thanks for your help.
>
> Ed AD5JV
>
>

4292. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 01:36:12 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <yd6dnZTFBPyREwrenZ2dnUVZ_sidnZ2d@adelphia.com>
Source record: 66889

Richard Clark wrote:
> On Wed, 07 Dec 2005 05:05:51 GMT, "W. Watson"
> <wolf_tracks@invalid.com> wrote:
>
>
>>Maybe it had some affect. Dunno. I guess I could always try the
>>original one. Tomorrow.
>
>
> Hi OM,
>
> It could (and that would be a good check), but my guess is a change of
> weather will make more difference. If so, we go into the third chorus
> of
> Classic indication of a bad ground, or a ground loop.
>
> A bad ground will stay with you for a very long time. A ground loop
> can come or go with the same appearance of:
> love,
> superstition,
> the deal of a poker hand,
> or a political forecast.

Quite possibly there is some sort of grounding issue. I only bring up the monitor possibility because I have seen the way some monitors, and the circuitry that runs them, can really sing when a change is made. What adds spice to the problem is how Windoze will sometimes change resolutions on ya. Happens a lot more in DOS, but if a person is a gamer - or a Ham who still uses DOS - it can come into play more often than we might think.

My interest is piqued! Mr Watson - don't you dare solve this problem and not let us know what the cause was!!!! 8^)

- 73 de Mike KB3EIA -

4293. Re: Universal Aluminum Tower Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 03:44:03 UTC
From: Bob <none@thistime>
Message-ID: <G7KdnaYG9Y-UMQrenZ2dnUVZ_tOdnZ2d@giganews.com>
Source record: 66890

Bill, I know they're swaged, but you mean the legs are not the same diameter tubing all the way up? If not, could you tell me for your 22 and 18 please? Thanks for your trouble, Bob.
"BillJ" <w3fi@nwboronet.com> wrote in message news:YaKlf.360$Dh6.1842@eagle.america.net...
> Bob wrote:
>> Could anyone who owns one of these towers please measure the diameter the
>> of tubing leg for me? I am considering a purchase but need to know if it
>> is compatible with some presently owned hardware.
>> Thanks for your help,
>> Bob
> It depends on which section you use. The sections are numbered by the
> number of inches one each leg of the triangle. My base is 22 inches and a
> 50 ft. tower. Let me know and I will measure. Excellent tower.

4294. Re: measuring antenna resonance with an 8405a

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 04:13:44 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4397B2F8.2000906@comcast.net>
Source record: 66891

Wes,

Thank you. Two couplers configured "in to in" from a tee, to set up isolated "in phase" coupler signals, do seem to maintain very close to a relationship across frequencies. This was observed with an oscilloscope

After much scrounging around to make the connectors a constant length and number the 8405a does not maintain a constant phase across the same inputs. The 20kc IF output shows a significant phase change across the same frequency range.

Its back to the drawing board to re-tune the 8405a. Somewhere in the process I missed something. The phase angle should not vary that much.

Dan

Wes Stewart wrote:
> On Tue, 06 Dec 2005 23:13:35 GMT, Owen Duffy <owen@no.where> wrote:
>
>
>>On Tue, 06 Dec 2005 14:22:31 -0700, Wes Stewart <n7ws*@*yahoo.com>
>>wrote:
>>
>>
>>
>>>May be, but his link:
>>>
>>>http://cp.literature.agilent.com/litweb/pdf/5952-8133.pdf
>>>
>>>shows exactly what I'm talking about in Figure 3. Note the line
>>>stretcher on one sample port. Because I haven't seen the inside of one
>>>of these I don't know where the coupled arms reside with respect to
>>>each other but the fact that H-P shows the line stretcher tells me
>>>that they must have some (unavoidable, if not purposeful) asymmetry.
>>>They claim 4 degree phase tracking but it's unclear to me whether they
>>>mean the coupled arms with respect to the main line or to each other.
>>
>>I could be wrong, but I think that 4 deg seems part of the tolerance
>>of the phase alignment of the two sample ports wrt each other over the
>>frequency range.
>
>
> I tend to agree, but as someone who used to write specs and then sit
> back and watch vendors try to skirt them, I'm always dubious. :-)
>
>
>>Perhaps this is a coupler where the ports are

>>approximately in phase, and perhaps the line strether is to adjust
>>phase of forward and reflected ports to create a new reference plane
>>where it is needed or convenient to the measurement.
>
>
> I think what's being missed in this discussion is this: The 8405 has
> a phase offset adjustment that can make -any- relative phase read 180
> degrees on the meter. So you could put a short on 100 feet (30.48m)
> and adjust the phase offset to make the meter read 180 deg. This
> would be fine until you changed frequency then you're in trouble.
> That same effect is the reason for adding a line stretcher; it's to
> make that 180 degree relationship track with respect to frequency.
>
> Paragraph 2 of the document I provided explains this nicely.
>
> I've built reflectometers (many times) where dual couplers were not
> available and two back-to-back singles were used. (Sometimes, three
> were used with the added one in a feedback loop used to improve the
> source match of the generator) I can guarantee you that the two
> coupled arms didn't phase track and that is the general case that I
> was trying to put forth at the outset of this discussion.
>

4295. stevei shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 05:34:00 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1134020040.219789.55740@f14g2000cwb.googlegroups.com>
Source record: 66892
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

jsut some more thread pruning
Steveo wrote:
> http://niggermania.com/

4296. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 06:46:43 UTC
From: nm5k@wt.net
Message-ID: <1134024403.876033.218380@g49g2000cwa.googlegroups.com>
Source record: 66893

>I have no trees, streelamps, telephone poles, or anything higher than a
7 foot trailer. That was why I was considering a vertical. For
practical purposes anything higher than 40 feet is forbidden and 25
>foot is as high as I practically dare do.

You could use a mobile antenna on the trailer and have a decent
signal.

> From what I understand,
dipoles are not effective below 1/2 wavelength above the dirt, but
verticals can work well fairly close to the dirt if they have to. From
what I hear inverted vees are slightly better than dipoles but slightly
>worse than verticals at low altitude.

It all depends where you are talking. For NVIS, even a low antenna
will do ok. I've run quite a few low dipoles in portable use, and
never
had any problems. 1/2 wave up? If that were true, my dipoles here
at the house would be no good. They are only at 40 ft. Thats barely
more than a 1/4 wave up on 40m. 1/8 wave on 80m... I have no
trouble at all, and that includes dx. I can work dx on 80m with only
100w no problem.
In general, dipoles are better than inv vees at any altitude. At low
heights, you have less ground losses, and the antenna is higher
above ground in general. But, thats not to say an inv vee won't work
ok. It will. A flat dipole is best though, if perfection is desired.
Slightly less than low verticals? Who can say. It could be much
worse, or much better, depending on the quality of the vertical,
the band and path used, etc...In general when camping, I'd
rather run a low dipole, than a ground mount vertical with few
radials. Any vertical not ground mounted, I consider a ground plane,
and it must have resonant radials. Again, it could be better, worse,
or about the same... :/ Depends on band, path, etc.. The low dipole
would smoke the vertical on NVIS on 40/80, but the vertical
might win to long haul dx late at night if it's any good.

>My wife really doesn't care about money as much as she cares about
waste. If I can make my setup working with the stuff I already bought
then great... At this point I am considering just throwing in the towel
and raising a 20 foot iron pipe to mount a 20 meter inverted vee...
>sigh.

Probably what you should have done in the first place...:/ Would
work better than most anything else you will likely try. I would
have made my usual fanned paralleled dipoles fed with a single
coax if I could squeeze the room, and had a place to tie the ends

off. Sounds like you don't really....

>20m is my favorite band, followed by 40 then 30.

Why not use the "no radial" verticals? IE: cushcraft R7, and others
of it's ilk? Those are good for what you are trying to do...
And they will usually work better than a vertical that needs
radials, but doesn't have all it needs due to a limited location.
Yes, you can use helical radials, radiator, but don't it expect it
to be a world beater. A simple dipole would probably eat it for lunch
and be cheaper and easier to build. I've used quicky dipoles portable,

no higher than my own height, and had no trouble talking. And that
was mainly on 75 and 40. One time I did that only running a yeasu
ft-7 with 10w output, and had no trouble. That was at Lake Amistad,
out in the psuedo desert. Not many trees where we were. I found a
tall 6-8 ft stick, and use that to support the dipole. The ends were
tied off to low bushes, or whatever.. Even with 10w, I was averaging
S9 or so to most people around the state. Not too bad. Would
have been 10-20 over 9 with 100w probably.
MK

4297. Notch filter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 11:05:01 UTC
From: SH <sholby@hotmail.com>
Message-ID: <4398216d@news.wineasy.se>
Source record: 66894

Hi

I am going to make a notch filter with two notches on the same frequency in the UHF TV band but I cant remember whether they should be spaced 1/4 or 1/2 wave or if it doesnt matter.

Thanks

SH

4298. Re: Antennas And Lightning Induced Voltage Transients

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 12:41:49 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <Ir6J9p.L1C@bath.ac.uk>
Source record: 66895

Robert11 wrote:

> Hello:
>
> We get a lot of lightning strikes around here, and was wondering about this:
>
> Presently have a receive-only random length wire running around the inside
> of my attic.
>
> Guess I'm not really too worried about "direct" lightning strikes; if there
> is one I imagine I have a lot more to worry about than the radio.
>
> But, does the roof provide any protection from nearby lightning strikes
> inducing a high transient voltage
> into the indoor attic antenna wire, as compared to if I had the wire antenna
> strung outside the house ?
> Again, from an induced voltage standpoint concern.
>
> Or, is the fact that it is indoors really meaningless ?
>

Meaningless. A neon to ground is traditional for
receiving antennas. Makes a good EMP indicator.

vy 73

Andy

4299. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 12:47:58 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <Ir6JJy.L80@bath.ac.uk>
Source record: 66896

RB wrote:

> Fell prey to the old "don't engage mouth prior to engaging brain" syndrome.
>
> Sorry about the confusion I caused. My bad.
>
> Was just wondering if coax feed with balun at centerpoint would be better
> than ladderline feed with balun at tuner output (and no, my tuner doesn't
> have an internal balun).
>
>
Tuner-balun-ladder-antenna is better. Lower losses if
the tuner is doing anything, i.e. antenna is not 50+j0 ohms.

vy 73

Andy

4300. test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 13:28:33 UTC
From: Ed Laughery <laughery@bellsouth.net>
Message-ID: <IvWlf.17682$cA2.759@bignews3.bellsouth.net>
Source record: 66897

test

4301. Dual Band vertical (2m/70 cm) problem / details

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 13:32:50 UTC
From: Ed Laughery <laughery@bellsouth.net>
Message-ID: <JzWlf.17750$cA2.9239@bignews3.bellsouth.net>
Source record: 66898

Hi

The antenna that I am working with is built as follows:

The base to coil section is approx 7 " - depending on where I am measuring, this would pretty much coincide with a 1/4 wave 440 segment - next is about 12 turns (.5 "" dia.) followed by a 17 " segment. I cannot reconcile the length for two meters. With an analyzer, I cannot sweep thru freq. and find any close resonant point at 2 meters. This is a thru glass antenna but regardless of direct coupling or putting between glass, I can only get a VSWR of 1.9 - 2.1 on 440 and 6.+ on two meters. I certainly don't mind trimming the top section, if I have a chance at making it work as the dual bander it is supposed to be. Any bit of wisdom would be greatly appreciated.

AD5JV Ed

4302. Re: Notch filter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 14:26:08 UTC
From: SH <sholby@hotmail.com>
Message-ID: <43985090$1@news.wineasy.se>
Source record: 66902

Thanks for the quick response i have however a few more questions.

This is for notching disturbing tv channels on my tv areal and there are
several that I want to notch.
Lets asume that I only want one Notch pr TV channel is it then possible to
connect several notches on the same spot without the 1/4 wave??? If yes is
there a limit.
I have looked at some commercial filters and they use 2 notch at the same
spot and then two more 1/4 wave apart but the are tuned to the same
frequency as the first pair.

"Dale Parfitt" <par@parelectronics.com> wrote in message
news:%pXlf.8360$Jg5.8212@trnddc07...
>
> "SH" <sholby@hotmail.com> wrote in message
> news:4398216d@news.wineasy.se...
>> Hi
>>
>> I am going to make a notch filter with two notches on the same frequency
>> in the UHF TV band but I cant remember whether they should be spaced 1/4
>> or 1/2 wave or if it doesnt matter.
>>
>> Thanks
>>
>> SH
>>You can couple the notches directly with an L or C and achieve an
>>asymmetrical response - this can be handy if yiu have a weak CH close by
>>on one side and need the faster recovery.
> If a symmetrical response is OK, separate the 2 notches by a 1/4
> electrical wavelength.
> Typical 3dB BW on our small UHF symmetrical notches is +/- 1.2%
>
> 73,
>
> Dale W4OP
>

4303. Re: Notch filter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 14:28:11 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <%pXlf.8360$Jg5.8212@trnddc07>
Source record: 66899

"SH" <sholby@hotmail.com> wrote in message news:4398216d@news.wineasy.se...
> Hi
>
> I am going to make a notch filter with two notches on the same frequency
> in the UHF TV band but I cant remember whether they should be spaced 1/4
> or 1/2 wave or if it doesnt matter.
>
> Thanks
>
> SH
>You can couple the notches directly with an L or C and achieve an
>asymmetrical response - this can be handy if yiu have a weak CH close by
>on one side and need the faster recovery.
If a symmetrical response is OK, separate the 2 notches by a 1/4 electrical
wavelength.
Typical 3dB BW on our small UHF symmetrical notches is +/- 1.2%

73,

Dale W4OP

4304. LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts peoples names on moving contracts without THEIR Knowledge. (925) 876-7441 Lwest@chipmancorp.com 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 14:29:32 UTC
From: "jermainsanchezrangel@hotmail.com" <jermainsanchezrangel@hotmail.com>
Message-ID: <1134052172.756563.94800@g43g2000cwa.googlegroups.com>
Source record: 66900
Cross-posted to: yu.oglasi,alt.internet.wireless,alt.cellular.cingular,rec.radio.amateur.antenna,alt.fifty-plus.friends

LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts
peoples names on moving contracts without THEIR Knowledge. (925)
876-7441 Lwest@chipmancorp.com 925-825-5000
of CHIPMAN UNITED VAN LINES Caton Mayflower she likes to put peoples
names on moving
contracts with out there Knowledge or she likes to do Fraud & Forgery
Concord,ca or Caton Mayflower Moving & Storage Movers & Relocation
Service Dublin,ca (925) 876-7441, 925-887-5515,
925-825-5000, 800-825-3866,800-447-9771, 925-609-1800,
800-447-1771, 925-935-4073, 925-828-3985
walnut creek,ca alamo,ca danville,ca san ramon,ca dublin,ca
pleasanton,ca

4305. Re: Dual Band vertical (2m/70 cm) problem / details

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 15:14:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <T5Ylf.30092$q%.6714@newssvr12.news.prodigy.com>
Source record: 66901

Ed Laughery wrote:
> This is a thru glass antenna ...

A lot of thru-glass antennas are end-fed
electrical half wavelength antennas.
--
73, Cecil, http://www.qsl.net/w5dxp

4306. Re: What is a duplexer, diplexer and combiner?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 16:11:47 UTC
From: richardharrison@webtv.net
Message-ID: <2303-43985B43-44@storefull-3252.bay.webtv.net>
Source record: 66903

Anon wrote:
"What are the functions of each of these?"

My dictionary says:
"Diplexer - "A coupling unit which allows more than one transmitter to operate together on one antenna."

The first AM broadcast plant I worked in did this with stations on 950 KHz and 1320 KHz. It was faultless.

Duplexer - "A radar device which, by using the transmitted pulse, automatically switches the antenna from receive to transmit at the proper timwee"

I`ve seen gas tubes used for this in radar sets in the navy and company owned boats I worked on. Again, it worked like a charm.

Combiner - "A circuit for mixing video, trigger, and scan data from the synchronizer for the modulation of the link."

Obviously definitions depend on applications. For example, I`m familiar with combiners used to select the best signal from multiples in diversity reception.

Best regards, Richard Harrison, KB5WZI

4307. Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 16:37:48 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1134059867.937797.145470@g14g2000cwa.googlegroups.com>
Source record: 66904

Hi
Can someone advise me of dimensions for a 40 meter version?

Here is original article:
http://www.hamuniverse.com/cobraantenna.html
Thanks
Jim K2TL

4308. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 16:56:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7BZlf.37039$D13.18071@newssvr11.news.prodigy.com>
Source record: 66905

JimK2TL@gmail.com wrote:
> Can someone advise me of dimensions for a 40 meter version?

The 80m version is 1/2 the size of the 160m version.
The 40m version would be 1/2 the size of the 80m version.
--
73, Cecil, http://www.qsl.net/w5dxp

4309. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 18:05:53 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1134065153.406046.257800@g47g2000cwa.googlegroups.com>
Source record: 66906

Hi
Well, not exactly, but close. A half wave on 160 is 260 feet, half of that is not 140 as in the Cobra and 80 meters half wave is about 134 feet, so half of that is not 70 feet, as in the Cobra antenna. But its a good enough starting point to work with I suppose. Maybe I'll try 35 feet for 40 meters.
Thanks
Jim

4310. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 18:14:53 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1134065693.035197.289660@g47g2000cwa.googlegroups.com>
Source record: 66907

Oh wait, I see what you mean..you are correct Hi..So, 35 feet would be correct anyway.

Thanks

4311. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 18:26:10 UTC
From: richardharrison@webtv.net
Message-ID: <5903-43987AC2-247@storefull-3255.bay.webtv.net>
Source record: 66908

Jeff Dieterlle wrote:
"I ran RG 6-U coax to the roof of the factory (approx. 100 ft) and considered buying a loop antenna but at this group`s suggestion connected the coax to the long wire. The stations I`m interested in are Indianapolis 1070 kc and Chicago 670 kc & 1000 kc. I installed 200 ft of #12 ga insulated wire that is oriented in line with these 2 cities and....."

Jeff didn`t say how far he is from the stations. All 3 stations run 50 KW but have daytime directional patterns which may affect the signal strength he receives.

50 KW nondirectional can produce 1860 millivolts per meter at one mile or 9.3 millivolts at 200 miles. I said may because it depends on ground conductiviyty and other factors. I listen to to a 50 KW station 200 miles away 24 hours.

RG-6 has a capacitnance of 20.5pF/ft. So, 100 ft. totals 2050 pF. At 1000 KHz, its reactance is about 78 ohms. This is shunting the impedance of 61 meters of 12 gauge wire (0.0033 WL), a fairly figh capacitive reactance at 1000 KHz. This is a voltage divider. Most of the energy captured by the wire is dropped scross the wire and reradiated never reaching the receiver. That was why a loop which matched the coax was suggested.. Jeff pribably gets enough signal in his antenna. He might get more of it to his receiver using a broadband transformer between his antenna and coax which stepped doown the impedance to match the coax approximately. He may need to step it back up at the receiver end. I recall using this arrangement in 1938 with a General Electric all-band doublet kit and it worked well.

Pointing the wire at the station is fine for a Beverage antenna but about 2 wavelengths is needed for a Beverage.. That wold be 1968 feet at 1000 KHz. The Beverage is vertically polarized, as needed to receive a ground wave. Otherwise, shorter antennas may do better at a more broadside attitude towards the signal wavefront. A random wire generally uses its vertical component to receive groundwaves.

Best regards, Richard Harriison, KB5WZI

4312. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 18:49:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cf%lf.28484$7h7.11357@newssvr21.news.prodigy.com>
Source record: 66909

JimK2TL@gmail.com wrote:

> Well, not exactly, but close. A half wave on 160 is 260 feet, half of
> that is not 140 as in the Cobra and 80 meters half wave is about 134
> feet, so half of that is not 70 feet, as in the Cobra antenna. But its
> a good enough starting point to work with I suppose. Maybe I'll try 35
> feet for 40 meters.

I didn't say anything about wavelength. The 140 ft. Cobra is alleged
to work on 160m. The 70 ft. Cobra is alleged to work on 80m. So a
35 ft. Cobra would be alleged to work on 40m.

Incidentally, I just modeled a 124 ft. Cobra version that has
performance on 160m that is superior to the 140 ft. version
because the SWR on the 450 ohm feedline drops from about 63:1
to about 47:1 according to EZNEC. Performance is comparable to
a 124 ft. dipole on all HF bands. This looks like a fairly
reasonable way to obtain 160m performance from a 124 ft. antenna.
--
73, Cecil, http://www.qsl.net/w5dxp

4313. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 18:59:56 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <0j0hp1hdkcu7t6t9phjc88to10igm1gs7c@4ax.com>
Source record: 66910

On 5 Dec 2005 13:35:11 -0800, eternalsquire@comcast.net wrote:

>I have one problem... I can only get stuff from Home Depot, about 50
>miles away.
>
>The Eternal Squire

Texas Towers, for aluminum tubing, and The Wireman, for any kind of
antenna paraphernalia, both have web sites, and phone numbers.

Jeez...

bob
k5qwg

4314. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 19:11:06 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ez%lf.28487$7h7.4608@newssvr21.news.prodigy.com>
Source record: 66911

JimK2TL@gmail.com wrote:
> Oh wait, I see what you mean..you are correct Hi..So, 35 feet would be
> correct anyway.

A word of caution about scaling of this antenna. Assuming that
the 70 ft. version does work on all HF bands, 80m scales to
40m, 40m scales to 20m, 30m scales to 15m, and 20m scales
to 10m. As you can see, scaling from an 80m version to a 40m
version doesn't necessarily cover the WARC bands.
--
73, Cecil, http://www.qsl.net/w5dxp

4315. Re: WTB: Quantum Phaser & Quantum Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 19:21:27 UTC
From: sdaniel13@nyc.rr.com
Message-ID: <1134069687.059515.132760@g44g2000cwa.googlegroups.com>
Source record: 66912
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

Unlike the Kiwa loops, the Quantums don't seem to turn up on Ebay very
often. In fact, I'm not sure I've ever seen one there. Since the
Quantum loops are still available new, I guess the used market just
isn't as 'hot' for them.

Steve

4316. Re: help: antenna inside a box

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 19:37:05 UTC
From: fmmck@aol.com
Message-ID: <fmmck-0812051437050001@ac978664.ipt.aol.com>
Source record: 66913

In article <43931CF9.43731F8B@shaw.ca>, Irv Finkleman <finkirv@shaw.ca> wrote:

> If you were to make the antenna a ground plane or vertical and use a piece of
> copper clad circuit board as the plane, it might provide a good degree of
> isolation from the other components below that plane.

Irv & Jin-

Also consider making a "patch" antenna using the circuit board ground plane. Of course the size will depend on operating frequency, and it will probably not be as good as a ground plane antenna.

I don't have any references, but a web search should find information on patch antennas used on UHF and higher frequencies.

73, Fred, K4DII

4317. Re: LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts peoples names on moving contracts without THEIR Knowledge. (925) 876-7441 Lwest@chipmancorp.com 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 20:58:48 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <286fc$43989e8f$97d56a33$26379@ALLTEL.NET>
Source record: 66914
Cross-posted to: yu.oglasi,alt.internet.wireless,alt.cellular.cingular,rec.radio.amateur.antenna,alt.fifty-plus.friends

She knew you were a left wing idiot and easy pickings.
You deserved everything you got an then some.

I am setting her laughing my butt off at your pain!

<jermainsanchezrangel@hotmail.com> wrote in message
news:1134052172.756563.94800@g43g2000cwa.googlegroups.com...
> LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts
> peoples names on moving contracts without THEIR Knowledge. (925)
> 876-7441 Lwest@chipmancorp.com 925-825-5000
> of CHIPMAN UNITED VAN LINES Caton Mayflower she likes to put peoples
> names on moving
> contracts with out there Knowledge or she likes to do Fraud & Forgery
> Concord,ca or Caton Mayflower Moving & Storage Movers & Relocation
> Service Dublin,ca (925) 876-7441, 925-887-5515,
> 925-825-5000, 800-825-3866,800-447-9771, 925-609-1800,
> 800-447-1771, 925-935-4073, 925-828-3985
> walnut creek,ca alamo,ca danville,ca san ramon,ca dublin,ca
> pleasanton,ca
>

4318. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 21:02:53 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <429f6$43989f87$97d56a33$26803@ALLTEL.NET>
Source record: 66915

As stated in the text, 73 feet.

<JimK2TL@gmail.com> wrote in message
news:1134059867.937797.145470@g14g2000cwa.googlegroups.com...
> Hi
> Can someone advise me of dimensions for a 40 meter version?
>
> Here is original article:
> http://www.hamuniverse.com/cobraantenna.html
> Thanks
> Jim K2TL
>

4319. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 21:07:46 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <b6131$4398a0a4$97d56a33$27198@ALLTEL.NET>
Source record: 66916

The website states 73 feet for the 40 meter version that can also be used on 80. One would then assume that a 20 meter version 36.5 feet would also work on 40.

"Cecil Moore" <mycall@arrl.net> wrote in message news:7BZlf.37039$D13.18071@newssvr11.news.prodigy.com...
> JimK2TL@gmail.com wrote:
> > Can someone advise me of dimensions for a 40 meter version?
>
> The 80m version is 1/2 the size of the 160m version.
> The 40m version would be 1/2 the size of the 80m version.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

4320. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 21:25:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Ww1mf.28525$7h7.1540@newssvr21.news.prodigy.com>
Source record: 66917

Fred W4JLE wrote:
> The website states 73 feet for the 40 meter version that can also be used on
> 80. One would then assume that a 20 meter version 36.5 feet would also work
> on 40.

Yep, but not on 30m and 17m.
--
73, Cecil, http://www.qsl.net/w5dxp

4321. Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 21:44:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dna9f7$6k5$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66918

I have been informed my GRNDWAV3 program is in error - it calculates the power input to a matched receiver to be 6dB greater than it ought to be, or exactly 4 times the correct power input.

Most of my programs calculate results based on what I consider to be fundamental reasoning. But GRNDWAV3 is one of the few where I have adapted formulae from the text books or 'bibles'.

My informant is an Icelandic amateur who appears to know what he is talking about and is mathematically very convincing. For various resons, for the time being I propose to leave him out of this discussion. That is, of course, if a discussion should evolve.

The problem fundamentally revolves around the gain of short vertical antennas, both transmitting and receiving, above a perfect ground, relative to isotropic. But for present purposes what an isotrope actually is can be forgotten about. It exists only in one's imagination.

Numbers cannot be avoided. So let's keep them as simple as possible by starting with the MF standard of 1 Kilowatt, radiated from a short vertical antenna above a perfect ground. Actual antenna height and frequency don't matter.

According to the text books, the field strength from 1 Kw at 1 kilometre = 300 millivolts, which (according to the text books) is correctly calculated by my program.

To calculate matched reciever input power from field strength it is necessary to state vertical antenna height, frequency and radiation resistance. Again choosing simple values -

Antenna height = 1 metre.
Frequency = 20 MHz.
Calculated radiation resistance = 1.758 ohms.
Matched receiver input resistance is also 1.758 ohms.

According to requirements antenna height is short compared with a wavelength. I am confident that radiation resistance is correct at 20 MHz for a 1 metre vertical.

Antenna reactance is tuned out and disappears from the argument.

So we have a simple circuit consisting of a generator with a resistive load of the same value, both equal to 1.758 ohms.

According to the text books (as confirmed by Roy) the generator voltage is 300 millivolts. (A 1 metre high antenna with a field

strength of 300 mV per metre.)

The power available to the receiver is therefore -

Pr = Square(0.3/2) divided by 1.758 = 12.8 milliwatts.

Which is the value calculated by my program although it does it in a different way by not involving field strength. It calculates it more directly from the 1 kW transmitter power and the antenna gains of a pair of vertical Tx and Rx antennas relative to isotropic.

Nevertheless, I think my informant may be correct. That indeed my program states receiver power input to be 4 times greater than what it actually is. IMPORTANTLY, he says an NEC numerical program confirms his own calculations.

NEC programs are not dependent on what a program user's ideas may be about antenna gains relative to isotropic. They calculate directly from fundamental metre-amps and volts.

I am presently out of touch with my informant. I do not know which NEC program confirms his calculations.

I have recently asked Roy what is the voltage measured between the bottom end of a 1 metre long vertical antenna and ground when the field strength is 1 volt per metre. He says it is 1 volt and no doubt the Bibles agree.

It is intriging, if the value should be only 0.5 volts then my program would give the (suspected) correct answer to the simple question -

"What is the power input to a matched receiver using a 1 metre vertical antenna, at 20 MHz, at a distance of 1 Km from a 1Kw transmitter also using a short vertical antenna?" Short is less than 1/4-wavelength.

Is it 12.8 milliwatts, or is it 3.2 milliwatts?

Is there an NEC numerical program which will do the job? If there is perhaps somebody could use it.

Most important, do I have to correct the program bug for the sake of 6 dB when the calculating uncertainty at long distances is plus or minus 10 or 15 dB ?

Reg, G4FGQ

4322. Re: LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts peoples names on moving contracts without THEIR Knowledge. (925) 876-7441 Lwest@chipmancorp.com 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 21:49:47 UTC
From: riggor99999 <riggor99999@yahoo.com>
Message-ID: <45GdncR8rLvkNwXenZ2dnUVZ_tmdnZ2d@comcast.com>
Source record: 66919
Cross-posted to: yu.oglasi,alt.internet.wireless,alt.cellular.cingular,rec.radio.amateur.antenna,alt.fifty-plus.friends

...setting her ... ?

"Fred W4JLE" <w4jle@w4jle.com> wrote in message
news:286fc$43989e8f$97d56a33$26379@ALLTEL.NET...
> She knew you were a left wing idiot and easy pickings.
> You deserved everything you got an then some.
>
> I am setting her laughing my butt off at your pain!
>
> <jermainsanchezrangel@hotmail.com> wrote in message
> news:1134052172.756563.94800@g43g2000cwa.googlegroups.com...
>> LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts
>> peoples names on moving contracts without THEIR Knowledge. (925)
>> 876-7441 Lwest@chipmancorp.com 925-825-5000
>> of CHIPMAN UNITED VAN LINES Caton Mayflower she likes to put peoples
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>> 925-825-5000, 800-825-3866,800-447-9771, 925-609-1800,
>> 800-447-1771, 925-935-4073, 925-828-3985
>> walnut creek,ca alamo,ca danville,ca san ramon,ca dublin,ca
>> pleasanton,ca
>>
>
>

4323. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 22:01:45 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1134079305.290638.156410@z14g2000cwz.googlegroups.com>
Source record: 66920

Thanks for the replies...I am trying to construct a multiband antenna for a disabled friend who lives in a Townhouse. He has some room up in the attic. I think I could squeez a 35 foot lnear loaded inverted vee up. Its going to be fed with 300 ohm line. If it works, fine, if not, then its butterfly collecting for him instead of Ham Radio. Hey, its worth a try. Some of the reviews I have read are interesting. BTW, DX Engineering sells 2 models of this antenna using 3 conductor power cable and 300 ohm line. Check thier site. They even let you read the manual in PDF.
Jim

4324. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 22:17:32 UTC
From: richardharrison@webtv.net
Message-ID: <14250-4398B0FC-186@storefull-3258.bay.webtv.net>
Source record: 66921

Reg, G4FGQ wrote:
"He says it is 1 volt and no doubt the bibles agree."

OK. You have an antenna with some radiation resistance and a lossless conjugate match to a load.

1/2 the antenna voltage which equals the volts per meter field strength in your 1-meter wire, is dropped across the radiation resistance and the other 0.5 volt appears across the receiver load. The radiation resistance of the antenna becomes the Thevenin equivalent source resistance of the generator feeding the receiver load..

The power lost to reradiation is 0.5 volt times the current in the radiation resistance. The power delivered to the matched receiver load is exactly the same.

Best regards, Richard Harrison, KB5WZI

4325. can rotator power be used to power amplifier?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 22:28:53 UTC
From: jaepstein_63@yahoo.com
Message-ID: <1134080933.495574.36350@o13g2000cwo.googlegroups.com>
Source record: 66922

Hi,

I posted here a few years back about my TV antenna:
http://tinyurl.com/a93e9

I'm now thinking of adding a pre-amp as someone suggested.

The antenna rotator receives some power through the walls and roof. Is it possible to use this power to provide power to a pre-amp? If so, does this apply to any particular model(s) of pre-amp?

I'm not using the rotator and would be glad to disconnect it from its power supply if that would simplify matters.

I get good reception on NBC/ABC/CBS (all VHF) in general, but my Dish-811 HDTV receiver only locks onto a sufficient HDTV signal from PBS (UHF), FOX (VHF) and some of the other OTA channels about 75% of the time, and I'd like to do better.

Thanks,

Jonathan

4326. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 22:39:07 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <cvGdnfhGXopjKAXenZ2dnUVZ_tSdnZ2d@web-ster.com>
Source record: 66923

Reg Edwards wrote:
> I have been informed my GRNDWAV3 program is in error - it calculates
> the power input to a matched receiver to be 6dB greater than it ought
> to be, or exactly 4 times the correct power input.
>
> Most of my programs calculate results based on what I consider to be
> fundamental reasoning. But GRNDWAV3 is one of the few where I have
> adapted formulae from the text books or 'bibles'.
>
> My informant is an Icelandic amateur who appears to know what he is
> talking about and is mathematically very convincing. For various
> resons, for the time being I propose to leave him out of this
> discussion. That is, of course, if a discussion should evolve.
>
> The problem fundamentally revolves around the gain of short vertical
> antennas, both transmitting and receiving, above a perfect ground,
> relative to isotropic. But for present purposes what an isotrope
> actually is can be forgotten about. It exists only in one's
> imagination.
>
> Numbers cannot be avoided. So let's keep them as simple as possible by
> starting with the MF standard of 1 Kilowatt, radiated from a short
> vertical antenna above a perfect ground. Actual antenna height and
> frequency don't matter.
>
> According to the text books, the field strength from 1 Kw at 1
> kilometre = 300 millivolts, which (according to the text books) is
> correctly calculated by my program.
>
> To calculate matched reciever input power from field strength it is
> necessary to state vertical antenna height, frequency and radiation
> resistance. Again choosing simple values -
>
> Antenna height = 1 metre.
> Frequency = 20 MHz.
> Calculated radiation resistance = 1.758 ohms.
> Matched receiver input resistance is also 1.758 ohms.
>
> According to requirements antenna height is short compared with a
> wavelength. I am confident that radiation resistance is correct at 20
> MHz for a 1 metre vertical.
>
> Antenna reactance is tuned out and disappears from the argument.
>

> So we have a simple circuit consisting of a generator with a resistive
> load of the same value, both equal to 1.758 ohms.
>
> According to the text books (as confirmed by Roy) the generator
> voltage is 300 millivolts. (A 1 metre high antenna with a field
> strength of 300 mV per metre.)
>
> The power available to the receiver is therefore -
>
> Pr = Square(0.3/2) divided by 1.758 = 12.8 milliwatts.
>
> Which is the value calculated by my program although it does it in a
> different way by not involving field strength. It calculates it more
> directly from the 1 kW transmitter power and the antenna gains of a
> pair of vertical Tx and Rx antennas relative to isotropic.
>
> Nevertheless, I think my informant may be correct. That indeed my
> program states receiver power input to be 4 times greater than what it
> actually is. IMPORTANTLY, he says an NEC numerical program confirms
> his own calculations.
>
> NEC programs are not dependent on what a program user's ideas may be
> about antenna gains relative to isotropic. They calculate directly
> from fundamental metre-amps and volts.
>
> I am presently out of touch with my informant. I do not know which
> NEC program confirms his calculations.
>
> I have recently asked Roy what is the voltage measured between the
> bottom end of a 1 metre long vertical antenna and ground when the
> field strength is 1 volt per metre. He says it is 1 volt and no doubt
> the Bibles agree.
>
> It is intriging, if the value should be only 0.5 volts then my program
> would give the (suspected) correct answer to the simple question -
>
> "What is the power input to a matched receiver using a 1 metre
> vertical antenna, at 20 MHz, at a distance of 1 Km from a 1Kw
> transmitter also using a short vertical antenna?" Short is less than
> 1/4-wavelength.
>
> Is it 12.8 milliwatts, or is it 3.2 milliwatts?
>
> Is there an NEC numerical program which will do the job? If there is
> perhaps somebody could use it.
>
> Most important, do I have to correct the program bug for the sake of 6
> dB when the calculating uncertainty at long distances is plus or minus
> 10 or 15 dB ?
> ----

> Reg, G4FGQ
>
>
How was your Icelandic amateur doing his NEC calculations? If he
calculated the voltage that would generate 1kW into a load, then excited
his transmit antenna with a matched generator of that source impedance
-- which would drop the power by a factor of four. If he did that and
you did your calculations with 1kW going _to_ the transmit antenna that
would be your source of error.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4327. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 22:40:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnacpikgh1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66924

Don't know what a Cobra is.

But a 124-feet (38 metres) dipole, at a height of 40 feet (12 metres)
in conjunction with 60 feet (18 metres) of 450-ohm ladder line and an
L-match tuner has the following characteristics -

Freq MHZ Loss relative to ideal
1.9 8 dB
3.8 0.5 dB
7.1 0.9 dB
10.1 0.8 dB
14.1 0.6 dB
21.1 0.6 dB
29.0 0.6 dB

Loss includes, antenna, line, tuner and ground.

Data obtained using program DIPOLE3 from website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4328. Re: can rotator power be used to power amplifier?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 22:44:58 UTC
From: dplatt@radagast.org
Message-ID: <11phdrad6nl6835@corp.supernews.com>
Source record: 66925

In article <1134080933.495574.36350@o13g2000cwo.googlegroups.com>,
<jaepstein_63@yahoo.com> wrote:

>Hi,
>
>I posted here a few years back about my TV antenna:
>http://tinyurl.com/a93e9
>
>I'm now thinking of adding a pre-amp as someone suggested.
>
>The antenna rotator receives some power through the walls and roof. Is
>it possible to use this power to provide power to a pre-amp? If so,
>does this apply to any particular model(s) of pre-amp?
>
>I'm not using the rotator and would be glad to disconnect it from its
>power supply if that would simplify matters.

The rotator looks like one of the standard sort, which is powered by a
low-voltage AC signal when it's rotating, and is unpowered when it's
not.

It might be possible to "piggyback" DC onto that arrangement to run
the preamp, but I think it'd be bothersome to try.

A more common approach is to use a mast-mounted preamp which is
designed to have its power fed up the coaxial feedline. You install a
small "DC injector" between the TV set and the feedline, and plug a
wall-wart DC adapter into the injector.

>I get good reception on NBC/ABC/CBS (all VHF) in general, but my
>Dish-811 HDTV receiver only locks onto a sufficient HDTV signal from
>PBS (UHF), FOX (VHF) and some of the other OTA channels about 75% of
>the time, and I'd like to do better.

Preamps are not without their disadvantages. They can do a pretty
good job of helping boost the signal to overcome losses in the coax
feedline and any downstream signal splitters. They don't help at all
with signal-quality problems due to external noise sources, or
multipath reflections due to trees or buildings, both of which will be
amplified just as much as the desired signal. And, if cheaply
designed (and many are!) they can be prone to strong-signal overload
from nearby transmitters.

The antenna you are using looks like a low-to-medium-gain variety,
without all that much directionality... it might not have enough
multipath rejection to keep your signals ghost-free. If it's old, it

may be suffering from enough corrosion on the elements and the log-periodic line to be costing you some signal strength even before the signal gets into the feedline.

Have you checked your coax feedline for quality and health? It's quite possible that the original homeowner installed a relatively inexpensive (and thus relatively high-loss) 75-ohm coax such as RG-59. If the cable's been up for some years, it's possible that its termination fittings (often simple crimp-on F connectors) have worked loose, corroded, or allowed water to seep into the cable dielectric.

You might find it beneficial to replace your whole run of coax feedline with a more modern type - a low-loss RG-6, rated for use with satellite dishes, would be a good choice. Install new F connectors of the appropriate sort, replace the 75-to-300-ohm balun on the antenna, and waterproof all of the connections with Coax Seal or self-amalgamating rubber tape or brush-on "liquid electrical tape" or the like.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

4329. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 23:06:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <C%2mf.30707$q%.22345@newssvr12.news.prodigy.com>
Source record: 66826

Reg Edwards wrote:
> Don't know what a Cobra is.

It's a linear loaded folding shaped like this for 1/2 of the antenna:

62 feet per side
---------------------------------------+
|
+---------------------------------------+
|
+---------------------------------------FP---> other side

> Freq MHZ Loss relative to ideal
> 1.9 8 dB

The above antenna doesn't have nearly that amount of loss on 160m.
--
73, Cecil http://www.qsl.net/w5dxp

4330. Re: Universal Aluminum Tower Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 23:11:55 UTC
From: BillJ <w3fi@nwboronet.com>
Message-ID: <453mf.414$Dh6.1905@eagle.america.net>
Source record: 66827

Bob wrote:

> Bill, I know they're swaged, but you mean the legs are not the same diameter
> tubing all the way up? If not, could you tell me for your 22 and 18 please?
> Thanks for your trouble, Bob.
> "BillJ" <w3fi@nwboronet.com> wrote in message
> news:YaKlf.360$Dh6.1842@eagle.america.net...
>
>>Bob wrote:
>>
>>>Could anyone who owns one of these towers please measure the diameter the
>>>of tubing leg for me? I am considering a purchase but need to know if it
>>>is compatible with some presently owned hardware.
>>>Thanks for your help,
>>>Bob
>>
>>It depends on which section you use. The sections are numbered by the
>>number of inches one each leg of the triangle. My base is 22 inches and a
>>50 ft. tower. Let me know and I will measure. Excellent tower.
>
>
>
I measured 1.5 inches OD on the 22 inch base. Other sections are too
high to get to to measure and too much snow around to climb. I am not
positive but it sure seemed the legs are narrower on the smaller
sections. You could call Universal to find out for sure.

4331. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 23:14:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnaent$pj8$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66828

"Tim Wescott" <tim@seemywebsite.com> wrote in message
news:cvGdnfhGXopjKAXenZ2dnUVZ_tSdnZ2d@web-ster.com...
> Reg Edwards wrote:
> > I have been informed my GRNDWAV3 program is in error - it
calculates
> > the power input to a matched receiver to be 6dB greater than it
ought
> > to be, or exactly 4 times the correct power input.
> >
> > Most of my programs calculate results based on what I consider to
be
> > fundamental reasoning. But GRNDWAV3 is one of the few where I have
> > adapted formulae from the text books or 'bibles'.
> >
> > My informant is an Icelandic amateur who appears to know what he
is
> > talking about and is mathematically very convincing. For various
> > resons, for the time being I propose to leave him out of this
> > discussion. That is, of course, if a discussion should evolve.
> >
> > The problem fundamentally revolves around the gain of short
vertical
> > antennas, both transmitting and receiving, above a perfect ground,
> > relative to isotropic. But for present purposes what an isotrope
> > actually is can be forgotten about. It exists only in one's
> > imagination.
> >
> > Numbers cannot be avoided. So let's keep them as simple as
possible by
> > starting with the MF standard of 1 Kilowatt, radiated from a short
> > vertical antenna above a perfect ground. Actual antenna height and
> > frequency don't matter.
> >
> > According to the text books, the field strength from 1 Kw at 1
> > kilometre = 300 millivolts, which (according to the text books) is
> > correctly calculated by my program.
> >
> > To calculate matched reciever input power from field strength it
is
> > necessary to state vertical antenna height, frequency and
radiation
> > resistance. Again choosing simple values -
> >
> > Antenna height = 1 metre.

> > Frequency = 20 MHz.
> > Calculated radiation resistance = 1.758 ohms.
> > Matched receiver input resistance is also 1.758 ohms.
> >
> > According to requirements antenna height is short compared with a
> > wavelength. I am confident that radiation resistance is correct at
20
> > MHz for a 1 metre vertical.
> >
> > Antenna reactance is tuned out and disappears from the argument.
> >
> > So we have a simple circuit consisting of a generator with a
resistive
> > load of the same value, both equal to 1.758 ohms.
> >
> > According to the text books (as confirmed by Roy) the generator
> > voltage is 300 millivolts. (A 1 metre high antenna with a field
> > strength of 300 mV per metre.)
> >
> > The power available to the receiver is therefore -
> >
> > Pr = Square(0.3/2) divided by 1.758 = 12.8 milliwatts.
> >
> > Which is the value calculated by my program although it does it in
a
> > different way by not involving field strength. It calculates it
more
> > directly from the 1 kW transmitter power and the antenna gains of
a
> > pair of vertical Tx and Rx antennas relative to isotropic.
> >
> > Nevertheless, I think my informant may be correct. That indeed my
> > program states receiver power input to be 4 times greater than
what it
> > actually is. IMPORTANTLY, he says an NEC numerical program
confirms
> > his own calculations.
> >
> > NEC programs are not dependent on what a program user's ideas may
be
> > about antenna gains relative to isotropic. They calculate directly
> > from fundamental metre-amps and volts.
> >
> > I am presently out of touch with my informant. I do not know
which
> > NEC program confirms his calculations.
> >
> > I have recently asked Roy what is the voltage measured between the
> > bottom end of a 1 metre long vertical antenna and ground when the
> > field strength is 1 volt per metre. He says it is 1 volt and no

doubt
> > the Bibles agree.
> >
> > It is intriging, if the value should be only 0.5 volts then my
program
> > would give the (suspected) correct answer to the simple
uestion -
> >
> > "What is the power input to a matched receiver using a 1 metre
> > vertical antenna, at 20 MHz, at a distance of 1 Km from a 1Kw
> > transmitter also using a short vertical antenna?" Short is less
than
> > 1/4-wavelength.
> >
> > Is it 12.8 milliwatts, or is it 3.2 milliwatts?
> >
> > Is there an NEC numerical program which will do the job? If there
is
> > perhaps somebody could use it.
> >
> > Most important, do I have to correct the program bug for the sake
of 6
> > dB when the calculating uncertainty at long distances is plus or
minus
> > 10 or 15 dB ?
> > ----
> > Reg, G4FGQ
> >
> >
> How was your Icelandic amateur doing his NEC calculations? If he
> calculated the voltage that would generate 1kW into a load, then
excited
> his transmit antenna with a matched generator of that source
impedance
> -- which would drop the power by a factor of four. If he did that
and
> you did your calculations with 1kW going _to_ the transmit antenna
that
> would be your source of error.
>
==========
Tim,

I think the error, if there is one, is most likely at the receiving
end.

The RADIATED power is 1000 watts.
It doesn't matter how it got into the ether from the transmitter.

But you have made me think again about what should be done with
transmitting antenna gain.

Reg.

4332. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-08 23:29:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eebhp1p83kiqaso2f08rtd9hbnpotf24ko@4ax.com>
Source record: 66829

On Thu, 8 Dec 2005 21:44:07 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The problem fundamentally revolves around the gain of short vertical
>antennas, both transmitting and receiving,

Hi Reggie,

This is not what you proposed the first time through this exercise. As
your original was stated in terms of a field of 1V/M there is no need
to elaborate on about the radiator.

>Numbers cannot be avoided. So let's keep them as simple as possible by
>starting with the MF standard of 1 Kilowatt, radiated from a short
>vertical antenna above a perfect ground. Actual antenna height and
>frequency don't matter.

Then its mention at being both MF (MW?) standard, and being a short
vertical is in distinct conflict. Again, there is nothing inherent to
the problem short of demonstrable evidence in the field, which returns
us to the classic FCC ground wave charts for MF (MW?).
>
>According to the text books, the field strength from 1 Kw at 1
>kilometre = 300 millivolts, which (according to the text books) is
>correctly calculated by my program.

Are you claiming your program computes field V/M or power delivered by
a field of V/M?

>To calculate matched reciever input power from field strength

Here again is a new specification to your original query. Matched? I
would have suspected so, but being unmatched or being mismatched
brings a spectrum of answers that span to more than 1V/M down to
microV/M.

>it is
>necessary to state vertical antenna height, frequency and radiation
>resistance. Again choosing simple values -
>
>Antenna height = 1 metre.
>Frequency = 20 MHz.
>Calculated radiation resistance = 1.758 ohms.
>Matched receiver input resistance is also 1.758 ohms.

Even more elaboration that goes beyond the original. I suppose for
the purposes of discussion it works, but it goes well beyond the

premise of classic MF (MW?) work.

>According to requirements antenna height is short compared with a
>wavelength. I am confident that radiation resistance is correct at 20
>MHz for a 1 metre vertical.

When we have theoretical work supported by real field data in the MW
band, why take up a frequency outside that?

>Antenna reactance is tuned out and disappears from the argument.

This is to be expected, but was never actually expressed anywhere.

>So we have a simple circuit consisting of a generator with a resistive
>load of the same value, both equal to 1.758 ohms.

The generator's Z is immaterial to the discussion if you have a
defined field.

>According to the text books (as confirmed by Roy) the generator
>voltage is 300 millivolts. (A 1 metre high antenna with a field
>strength of 300 mV per metre.)

I have obtained comparable (though not exact) results for real (not
perfect) grounds to compare against actual (not theoretical) data.
Those not comparable have come from mismatched 1M high antennas
against various loads (already discussed above).

>The power available to the receiver is therefore -
>
>Pr = Square(0.3/2) divided by 1.758 = 12.8 milliwatts.

Where'd the 2 of the (0.3/2) come from?

>Which is the value calculated by my program
>
>Nevertheless, I think my informant may be correct.

It is quite simple to fool experts. They are by far easier targets
than the naive who ask for the missing work (like this fool here who
wonders just what your correspondent offered to convince you).

>Is it 12.8 milliwatts, or is it 3.2 milliwatts?

EZNEC computes it at Eï¿½/R

73's
Richard Clark, KB7QHC

4333. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 00:04:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnahmm$3et$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66830

Hi Richard,

You must have got out of bed the wrong side this morning. ;o)

Yours, Punchinello

4334. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 00:16:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnaicv$174$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66831

Sorry, I forgot "per metre".

I should have said -

"According to the text books, the field strength from 1 Kw at 1
kilometre = 300 millivolts per metre."

Reg.

4335. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 00:19:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11phjd7ek98820e@corp.supernews.com>
Source record: 66832

The answer is 3 mW.

Any version of EZNEC can be used to do this calculation. The demo program will yield slightly less accurate results because of the limited number of segments(*).

I modeled two vertical wires, 1 meter high and 1 mm diameter, spaced 1 km apart, at 20 MHz, over perfect ground. The reported feedpoint impedance varies with segmentation, from 1.988 - j952.3 ohms at 10 segments/wire to 1.72 - j882 ohms at 100 segments/wire. Accuracy is likely to degrade with a larger number of segments, since even 100 results in segment length/diameter ratio less than NEC recommendations. I used 100 segments/wire for the test.

One of the choices in EZNEC of far field strength reporting is in V/m at 1 kW input and 1 km distance. For this antenna, EZNEC reports 300.8 V/m (RMS) at ground level.

EZNEC also permits setting a fixed power input, so this was set to 1 kW. The resulting source voltage and current are 21270 V. and 24.12 A. respectively.

A load of 1.72 + j882 ohms was placed at the base of the second vertical. EZNEC reports a power of 3.234 mW being dissipated in this load.

Care has to be used when analyzing the current induced in one antenna by another which is distant using numerical calculations. Errors can occur due to truncation and other causes when the ratio of distances between the two antennas is great relative to the segment lengths or to segment distances within one of the antennas. However, EZNEC gets virtually identical results when using mixed and double precision NEC-2 calculating engines, which indicates that the limit hasn't been reached and that numerical problems aren't occurring. (Another check which can be done is to reduce the distance between antennas by a factor of two. The power in the load resistance should increase by a factor of four.)

Another critical matter is the setting of the load reactance. The reactance is many times larger than the resistance, so a slight error in setting its value will result in a large difference in load current and therefore load dissipation. For example, if the segmentation is changed from 100 to 50 segments/wire and no other change is made to the model, the reported load power becomes 0.3917 watts. The reason is that the reported source impedance is now 1.756 - j891.4 ohms, while the load is still 1.72 + j882 ohms. Changing the load to the proper conjugately matched value of 1.756 + 891.4 ohms returns the load power to the correct value of 3.24 mW.

All given, I'd trust the reported load power to be easily within 10% of the theoretically correct value.

(*) Results for 10 segments/wire are 1.988 - j952.3 ohms for the source impedance, 300.71 V/m field strength at 1 km for 1 kW, and 3.24 mW in a conjugately matched load impedance in the distant vertical.

Roy Lewallen, W7EL

4336. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 00:23:22 UTC
From: eternalsquire@comcast.net
Message-ID: <1134087802.542854.6750@g47g2000cwa.googlegroups.com>
Source record: 66833

I actually found what I hope is a solution. The KANGA 33' Telescoping Fiberglass mast for $99 is guaranteed against breaking or shattering in winds such as I might encounter, free replacement of broken sections if this is so. Weighs only 4 lbs, base is 2 inches. K1CRA, the distributor, suggested that all I needed to do was mount this against my pipe mount with a 2X4 and U-bolts. He also distributes a sealing agent for permanent installations. With this, he said, all I needed to do was run wire up the mast and work against my pipe mount as connected to the overall ground systems.

Sometimes it is the obvious which is the hardest to conceive of. I always though high winds and high heights always needed big iron (or copper), but I never thought that something made of an aerospace material would be within my reach... let alone that of a ten foot Pole or a seven foot Texan...

I'll let you know how it goes...

Thanks,

The Eternal Squire

4337. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 00:55:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s6lhp19nfra2lkue3c1d0mferjnu16c7bn@4ax.com>
Source record: 66834

On Fri, 9 Dec 2005 00:04:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>You must have got out of bed the wrong side this morning. ;o)

Ah hah,

Another troll using the Keflavik proxy, eh wot?

Yes, we should all beware a straight question from a crooked source.

73's
Richard Clark, KB7QHC

4338. Re: Universal Aluminum Tower Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 01:33:05 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <l95mf.1364$3Z.448@newsread1.news.atl.earthlink.net>
Source record: 66835

The legs are a bigger diameter depending on the section.
My base is a 26 inch leg to leg, and I have 80ft of it.
Not in the air yet.

Doug N4IJ

"BillJ" <w3fi@nwboronet.com> wrote in message
news:453mf.414$Dh6.1905@eagle.america.net...
> Bob wrote:
>
>> Bill, I know they're swaged, but you mean the legs are not the same
>> diameter tubing all the way up? If not, could you tell me for your 22 and
>> 18 please?
>> Thanks for your trouble, Bob.
>> "BillJ" <w3fi@nwboronet.com> wrote in message
>> news:YaKlf.360$Dh6.1842@eagle.america.net...
>>
>>>Bob wrote:
>>>
>>>>Could anyone who owns one of these towers please measure the diameter
>>>>the of tubing leg for me? I am considering a purchase but need to know
>>>>if it is compatible with some presently owned hardware.
>>>>Thanks for your help,
>>>>Bob
>>>
>>>It depends on which section you use. The sections are numbered by the
>>>number of inches one each leg of the triangle. My base is 22 inches and a
>>>50 ft. tower. Let me know and I will measure. Excellent tower.
>>
>>
>>
> I measured 1.5 inches OD on the 22 inch base. Other sections are too high
> to get to to measure and too much snow around to climb. I am not positive
> but it sure seemed the legs are narrower on the smaller sections. You
> could call Universal to find out for sure.

4339. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 01:58:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11php6dks5ta464@corp.supernews.com>
Source record: 66836

Roy Lewallen wrote:
> . . .
> Another critical matter is the setting of the load reactance. The
> reactance is many times larger than the resistance, so a slight error in
> setting its value will result in a large difference in load current and
> therefore load dissipation. For example, if the segmentation is changed
> from 100 to 50 segments/wire and no other change is made to the model,
> the reported load power becomes 0.3917 watts. . . .

Correction: That should be 0.3917 mW. The error doesn't alter the
conclusion.

Roy Lewallen, W7EL

4340. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 03:24:17 UTC
From: "Dr.Ace" <NoSpam@BedfordSucks.com>
Message-ID: <b74ec$4398f8d7$4e0bd10$20631@DIALUPUSA.NET>
Source record: 66837
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Steveo" <steveo-hed@excite.com> wrote in message
news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
> http://niggermania.com/
>

Very Funny

4341. stevie shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 03:32:15 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1134099135.131260.197790@g14g2000cwa.googlegroups.com>
Source record: 66838
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

thread pruning
Dr.Ace wrote:
> "Steveo" <steveo-hed@excite.com> wrote in message
> news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
> > http://niggermania.com/
> >
>
> Very Funny

very rasist

4342. The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 03:43:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnaugu$3l8$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66839

Roy,

My program requires antenna gains relative to isotropic to be entered.
To help discover where I was going wrong a numerical type program was
needed. Numerical programs do not need the intervention of fallible
human ideas about isotropes, mirror images and ground reflections.

I did not realise that EZNEC has the ability to calculate voltages and
currents induced in elements miles away from the radiating element.

But having the correct answer, I still have a problem. Praps you can
help me to solve it.

Staying with the same example of -

Frequency = 20 MHz.
Tx power = 1000 watts.
Distance = 1 kilometre.
Rx antenna height = 1 metre.
Rx antenna Rin = 1.944 ohms, including wire resistance.
Rx antenna -jXin is not needed.
Field strength = 300 millivolts per metre.

According to You, Terman and other Bibles, Volts induced in the 1
metre high antenna = 300 millivolts.

So we have a generator with open-circuit volts of 300 mV, with an
internal resistance of 1.944 ohms, with an Rx load resistance also of
1.944 ohms (which is in excellent agreement with EZNEC).

From which, power generated in the receiver = 11.6 milliwatts

BUT THIS IS SIX DB GREATER THAN THAT CALCULATED BY EZNEC.

From other considerations, and taking EZNEC's small errors into
account, it is EXACTLY 6.02 dB too large.

THE CALCULATION WOULD BE CORRECT IF THE VOLTAGE INDUCED IN THE
RECEIVING ANTENNA WAS EXACTLY HALF OF THE FIELD STRENGTH.

OR THE FIELD STRENGTH FROM THE 1KW TRANSMITTER WAS EXACTLY HALF OF THE
BIBLICAL VALUE OF 300 mV.

Where or how is the above calculation going wrong? A factor of 2 is
involved somewhere.

Thanks for your time and patience.

Reg, G4FGQ.

4343. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 03:49:59 UTC
From: Frank <frank599@nospamtelus.net>
Message-ID: <H97mf.235897$ir4.154088@edtnps90>
Source record: 66840

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11phjd7ek98820e@corp.supernews.com...
> The answer is 3 mW.
>
> Any version of EZNEC can be used to do this calculation. The demo program
> will yield slightly less accurate results because of the limited number of
> segments(*).
>
> I modeled two vertical wires, 1 meter high and 1 mm diameter, spaced 1 km
> apart, at 20 MHz, over perfect ground. The reported feedpoint impedance
> varies with segmentation, from 1.988 - j952.3 ohms at 10 segments/wire to
> 1.72 - j882 ohms at 100 segments/wire. Accuracy is likely to degrade with
> a larger number of segments, since even 100 results in segment
> length/diameter ratio less than NEC recommendations. I used 100
> segments/wire for the test.
>
> One of the choices in EZNEC of far field strength reporting is in V/m at 1
> kW input and 1 km distance. For this antenna, EZNEC reports 300.8 V/m
> (RMS) at ground level.
>
> EZNEC also permits setting a fixed power input, so this was set to 1 kW.
> The resulting source voltage and current are 21270 V. and 24.12 A.
> respectively.
>
> A load of 1.72 + j882 ohms was placed at the base of the second vertical.
> EZNEC reports a power of 3.234 mW being dissipated in this load.
>
> Care has to be used when analyzing the current induced in one antenna by
> another which is distant using numerical calculations. Errors can occur
> due to truncation and other causes when the ratio of distances between the
> two antennas is great relative to the segment lengths or to segment
> distances within one of the antennas. However, EZNEC gets virtually
> identical results when using mixed and double precision NEC-2 calculating
> engines, which indicates that the limit hasn't been reached and that
> numerical problems aren't occurring. (Another check which can be done is
> to reduce the distance between antennas by a factor of two. The power in
> the load resistance should increase by a factor of four.)
>
> Another critical matter is the setting of the load reactance. The
> reactance is many times larger than the resistance, so a slight error in
> setting its value will result in a large difference in load current and
> therefore load dissipation. For example, if the segmentation is changed
> from 100 to 50 segments/wire and no other change is made to the model, the
> reported load power becomes 0.3917 watts. The reason is that the reported

> source impedance is now 1.756 - j891.4 ohms, while the load is still 1.72
> + j882 ohms. Changing the load to the proper conjugately matched value of
> 1.756 + 891.4 ohms returns the load power to the correct value of 3.24 mW.
>
> All given, I'd trust the reported load power to be easily within 10% of
> the theoretically correct value.
>
> (*) Results for 10 segments/wire are 1.988 - j952.3 ohms for the source
> impedance, 300.71 V/m field strength at 1 km for 1 kW, and 3.24 mW in a
> conjugately matched load impedance in the distant vertical.
>
> Roy Lewallen, W7EL

I agree with the E field computation at 1km. NEC2 calculates the normalized peak E field as 425.452 V/m, which gives 300 mV/m at 1 km. The input impedance, with 50 segments (#14 AWG, perfect conductor) is 1.747 - j823.798 ohms. The NEC output files shows the TRP at 1 kW.

For some reason I seem to get a different received power. If I model a 1 meter monopole, above a perfectly conducting ground, loaded at the base segment with the complex conjugate of 1.747 + j823.798, and an incident peak E field of of 1V/m. NEC computes the peak base current as 0.28636 A. Dividing by 3.3333, for the equivalent RMS current from 300 mV/m RMS gives: 0.08591 A RMS. power in the load then equals 12.9 mW, which seems to agree with Reg's figure.

Frank

4344. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 04:00:04 UTC
From: Frank <frank599@nospamtelus.net>
Message-ID: <8j7mf.235900$ir4.125748@edtnps90>
Source record: 66841

> I agree with the E field computation at 1km. NEC2 calculates the
> normalized peak E field as 425.452 V/m, which gives 300 mV/m at 1 km. The
> input impedance, with 50 segments (#14 AWG, perfect conductor) is 1.747 -
> j823.798 ohms. The NEC output files shows the TRP at 1 kW.
>
> For some reason I seem to get a different received power. If I model a 1
> meter monopole, above a perfectly conducting ground, loaded at the base
> segment with the complex conjugate of 1.747 + j823.798, and an incident
> peak E field of of 1V/m. NEC computes the peak base current as 0.28636 A.
> Dividing by 3.3333, for the equivalent RMS current from 300 mV/m RMS
> gives: 0.08591 A RMS. power in the load then equals 12.9 mW, which seems
> to agree with Reg's figure.
>
> Frank

PS -- NEC computes the gain of a 1 meter, ideal conductor, monopole above a perfectly conducting ground, as 4.8 dB (Ground wave). Also note the current in the base, from an incident peak E-field of 1V/m is 0.28636A, which through 1.747 ohms, is 0.5 V peak. This appears to agree exactly with Reg's rational.

Frank

4345. Re: WTB: Quantum Phaser & Quantum Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 04:14:12 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1134101652.038041.296650@f14g2000cwb.googlegroups.com>
Source record: 66842
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

Steve -and- For One and All,
.
The Quantum QX 8" and QX Pro 15" do show up on eBay :
But since they are still being made by that wonderful American
Craftsman and Electronic Artist "Gerry Thomas" under the
business name of "Radio Plus+" and still can be found at
the DX Tools .Com website => http://www.dxtools.com/
.
eBAY PRICES and AVAILABILITY - Kiwa -verses- Quantum :
The 'legendary' Kiwa Air Core MW Loop Antenna simply
gets part of its 'legendary' Aurora from the fact that it is no
longer being made; and therefore there is a limited number
of them and that number may be getting smaller with the
passing of each day, week, month and year. On eBay the
Kiwa Air Core MW Loop Antenna often sells 'used' without
any warranty for more then the original retail price of about
$400. This is in contrast to the Quantum QX 7.5" and
QX Pro 15" Ferrite Loop Antennas that still can be bought
"New" with a Limited Warranty for about $200 and $300
respectively. Question ? Why buy a used Quantum on
eBay without a warranty; when you can buy a New one
with a Warranty; unless you can get it at least 30%
cheaper on eBay. Maximum Price for the Quantum
QX 7.5" should be $140 +S&H and QX Pro 15" should
be $210 +S&H - IMHO otherwise Buy-It-New direct from
the Builder Himself - Again IMHO.
.
.
Now We Can Take The "Quantum" Leap To :
Gerry Thomas = Radio Plus+ = DX Tools .Com are all
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/5711
there now to serve you and provide the Quantum "QX"
Ferrite Rod Loop Antennas for your LW and AM/MW
DXing needs => http://dxtools.com/index.html
* Radio Plus+ = DX Tools for the Serious Radio Listener *
QUANTUM QX PRODUCTS => http://dxtools.com/PRODUCTS.htm
QUANTUM QX AM/MW Loop Antenna => http://dxtools.com/QX.htm
QUANTUM QX PRO LW/AM/MW Loop Antenna => http://dxtools.com/QXPro.htm
QUANTUM PHASER =>http://dxtools.com/Phaser.htm
QUANTUM Q-STICK+ => http://dxtools.com/QStick.htm
QUANTUM COUPLER => http://dxtools.com/QCoupler.htm
QUANTUM ORDERING INFO => http://dxtools.com/Order.htm
.

Plus Check-Out the DX Tools .Com webpage for the :
.
* Best Desk Top Receivers for AM/MW DXing
http://dxtools.com/BestDXrx.htm
.
* Best Portable Radios for AM/MW DXing
http://dxtools.com/BestDXrx.htm
.
Question - Is your Radio/Receiver Listed There ? ? ?
.
.
hope this helps - iane ~ RHF
.
All are WELCOME and "Invited to Join" the
Shortwave Listener (SWL) Antenna eGroup on YAHOO !
<http://groups.yahoo.com/group/Shortwave-SWL-Antenna/>
SWL ANTENNAS GROUP => http://tinyurl.com/an6tw
.
Some Say: On A Clear Day You Can See Forever.
I Believe : On A Clear Night You Can Hear Forever
. . . and Beyond , , , The BEYOND ! ! !
With a Shortwave Listening Antenna of your own making.
"If You Build It {SWL Antenna} You Will Hear Them !"
<http://groups.yahoo.com/group/Shortwave-SWL-Antenna/>
SWL ANTENNAS GROUP => http://tinyurl.com/an6tw
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. .
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4346. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 04:43:47 UTC
From: richardharrison@webtv.net
Message-ID: <14250-43990B83-224@storefull-3258.bay.webtv.net>
Source record: 66843

Reg, G4FGQ wrote:
"According to textbooks, the field strength from 1 KW at 1 kilometre = 300 millivolts per metre."

Terman agrees with Reg`s signal strength produced by 1 KW radiated at a distance of 1 kilometer of: 300 millivolts per meter.

There are some conditions. The transmitting antenna is vertical and short compared with a 1/4-wavelength. It is nondirectional in a horizontal plane. The height of both antennas is low enough so that the space wave does not dominate propagation between them. Terman`s field strength derives from the equation first given by Sommerfeld and includes a factor aounting for ground losses.

Best regards, Richard Harrison, KB5WZI

4347. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 05:15:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnb3t4mhu1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66844

"Cecil Moore" <mycall@arrl.net> wrote in message
news:C%2mf.30707$q%.22345@newssvr12.news.prodigy.com...
> Reg Edwards wrote:
> > Don't know what a Cobra is.
>
> It's a linear loaded folding shaped like this for 1/2 of the
antenna:
>
> 62 feet per side
> ---------------------------------------+
> |
> +---------------------------------------+
> |
> +---------------------------------------FP---> other side
>
> > Freq MHZ Loss relative to ideal
> > 1.9 8 dB
>
> The above antenna doesn't have nearly that amount of loss on 160m.
==========
Folding is quite beneficial then at 1.9 MHz. How did you find what
the loss actually is? Did you model it? How far apart are the 3
wires?

Reg.

4348. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 05:46:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnb5nuqes1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66845

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:14250-43990B83-224@storefull-3258.bay.webtv.net...
> Reg, G4FGQ wrote:
> "According to textbooks, the field strength from 1 KW at 1 kilometre
=
> 300 millivolts per metre."
>
> Terman agrees with Reg`s signal strength produced by 1 KW radiated
at a
> distance of 1 kilometer of: 300 millivolts per meter.
>
> There are some conditions. The transmitting antenna is vertical and
> short compared with a 1/4-wavelength. It is nondirectional in a
> horizontal plane. The height of both antennas is low enough so that
the
> space wave does not dominate propagation between them. Terman`s
field
> strength derives from the equation first given by Sommerfeld and
> includes a factor aounting for ground losses.
>
> Best regards, Richard Harrison, KB5WZI

==========

Richard, thanks for the confirmation.

All you have to do now is calculate from the field strength the power available to a matched receiver at 20 MHz with a vertical receiving antenna 1 metre high.

If I tell you the antenna's radiation resistance is 1.758 ohms then you can forget about the frequency.

Reg.

4349. G10 fiberglass rod needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 07:42:46 UTC
From: Bob <none@thistime>
Message-ID: <tMqdncCQzYTpqATeRVn-uw@giganews.com>
Source record: 66846

I need about three feet (can be three pieces) of G10 rod about 1 1/2 to 2 inches in diameter. Any suggestions as to a reasonably priced source?
Thanks

4350. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 08:03:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jgeip1tcsdpc4t5ubskbvl1ib1o3ukeapl@4ax.com>
Source record: 66847

On Fri, 9 Dec 2005 03:43:27 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Where or how is the above calculation going wrong? A factor of 2 is
>involved somewhere.
>
>Thanks for your time and patience.

Asking for another chin lifted for the sucker punch? Reggie, this is
precious.

4351. Re: WTB: Quantum Phaser & Quantum Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 08:26:01 UTC
From: miso@sushi.com
Message-ID: <1134116761.000170.271160@g44g2000cwa.googlegroups.com>
Source record: 66848
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

I got to compare the Kiwa, the Quantum Qx and the 1 meter (diameter) Wellbrook 1530 loop on a Drake R8B. First of all, regarding the Kiwa, you don't need the regen if you have decent radio. Thus, screw the Kiwa since it only works on BCB. The Wellbrook beat the smaller Quantum Qx, but I don't know how it would compare to the larger Quantum pro. Then again, the ALA-100 and your own wire loop is less than the larger quantum.

Unless your radio sucks, I'd get the Wellbrook and go untuned. The advantage to the wellbrook is you get full HF coverage, while the Quantum only goes to 2MHz.

The ALA100 is billed as an outdoor very long wire version of the Wellbrook loops, but It works well with about a 10ft (length) wire, and exceptionally well with about 40ft of wire.
http://www.wellbrook.uk.com/ALA100b.html
The website doesn't explain the product very well. Here is one implementation:
http://www.lazygranch.com/images/radio/loop1.jpg
The amplifier is at the bottom of the loop.
http://www.lazygranch.com/images/radio/loop4.jpg
Not shown is the wallwart and the interface box you put near the radio.

I've hunted NDB's with the ALA100 using a loop no bigger than a pie plate. Of course, this is without 20 miles of the NDB.

RHF wrote:
> Steve -and- For One and All,
> .
> The Quantum QX 8" and QX Pro 15" do show up on eBay :
> But since they are still being made by that wonderful American
> Craftsman and Electronic Artist "Gerry Thomas" under the
> business name of "Radio Plus+" and still can be found at
> the DX Tools .Com website => http://www.dxtools.com/
> .
> eBAY PRICES and AVAILABILITY - Kiwa -verses- Quantum :
> The 'legendary' Kiwa Air Core MW Loop Antenna simply
> gets part of its 'legendary' Aurora from the fact that it is no
> longer being made; and therefore there is a limited number
> of them and that number may be getting smaller with the
> passing of each day, week, month and year. On eBay the
> Kiwa Air Core MW Loop Antenna often sells 'used' without
> any warranty for more then the original retail price of about
> $400. This is in contrast to the Quantum QX 7.5" and

> QX Pro 15" Ferrite Loop Antennas that still can be bought
> "New" with a Limited Warranty for about $200 and $300
> respectively. Question ? Why buy a used Quantum on
> eBay without a warranty; when you can buy a New one
> with a Warranty; unless you can get it at least 30%
> cheaper on eBay. Maximum Price for the Quantum
> QX 7.5" should be $140 +S&H and QX Pro 15" should
> be $210 +S&H - IMHO otherwise Buy-It-New direct from
> the Builder Himself - Again IMHO.
> .
> .
> Now We Can Take The "Quantum" Leap To :
> Gerry Thomas = Radio Plus+ = DX Tools .Com are all
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/5711
> there now to serve you and provide the Quantum "QX"
> Ferrite Rod Loop Antennas for your LW and AM/MW
> DXing needs => http://dxtools.com/index.html
> * Radio Plus+ = DX Tools for the Serious Radio Listener *
> QUANTUM QX PRODUCTS => http://dxtools.com/PRODUCTS.htm
> QUANTUM QX AM/MW Loop Antenna => http://dxtools.com/QX.htm
> QUANTUM QX PRO LW/AM/MW Loop Antenna => http://dxtools.com/QXPro.htm
> QUANTUM PHASER =>http://dxtools.com/Phaser.htm
> QUANTUM Q-STICK+ => http://dxtools.com/QStick.htm
> QUANTUM COUPLER => http://dxtools.com/QCoupler.htm
> QUANTUM ORDERING INFO => http://dxtools.com/Order.htm
> .
> Plus Check-Out the DX Tools .Com webpage for the :
> .
> * Best Desk Top Receivers for AM/MW DXing
> http://dxtools.com/BestDXrx.htm
> .
> * Best Portable Radios for AM/MW DXing
> http://dxtools.com/BestDXrx.htm
> .
> Question - Is your Radio/Receiver Listed There ? ? ?
> .
> .
> hope this helps - iane ~ RHF
> .
> All are WELCOME and "Invited to Join" the
> Shortwave Listener (SWL) Antenna eGroup on YAHOO !
> <http://groups.yahoo.com/group/Shortwave-SWL-Antenna/>
> SWL ANTENNAS GROUP => http://tinyurl.com/an6tw
> .
> Some Say: On A Clear Day You Can See Forever.
> I Believe : On A Clear Night You Can Hear Forever
> . . . and Beyond , , , The BEYOND ! ! !
> With a Shortwave Listening Antenna of your own making.
> "If You Build It {SWL Antenna} You Will Hear Them !"
> <http://groups.yahoo.com/group/Shortwave-SWL-Antenna/>

> SWL ANTENNAS GROUP => http://tinyurl.com/an6tw
> .
> .
> . .
> .

4352. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 08:29:39 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5qfip1t8m0ji8g1l4s5hgh57aa8ftai07n@4ax.com>
Source record: 66849

On Fri, 9 Dec 2005 00:16:31 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Sorry, I forgot "per metre".
>
>I should have said -
>
>"According to the text books, the field strength from 1 Kw at 1
>kilometre = 300 millivolts per metre."

For an isotropic radiator, is it correct to calculate the power flux density at 1Km at 1000/(4*pi*1000**2), and to find the field strength from FS in V.m = (power flux density * 120*pi)**0.5? That gives 173mV/m. It would be 245mV/m if the power were radiated uniformly in hemisphere.

300mV/m is conditional on the power radiated in a hemisphere and from an antenna with directivity (field proportion to the cosine of the angle of elevation).

Does that make sense?

Owen
--

4353. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 08:45:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pih1plv99ff37@corp.supernews.com>
Source record: 66850

Reg Edwards wrote:
> Roy,
>
> My program requires antenna gains relative to isotropic to be entered.
> To help discover where I was going wrong a numerical type program was
> needed. Numerical programs do not need the intervention of fallible
> human ideas about isotropes, mirror images and ground reflections.
>
> I did not realise that EZNEC has the ability to calculate voltages and
> currents induced in elements miles away from the radiating element.

There's a limit because of numerical precision, which I cautioned about in my last posting. But this problem is within its capabilities.

> But having the correct answer, I still have a problem. Praps you can
> help me to solve it.
> . . .

Yes, I'm very interested by the apparent contradiction. But I'm also seemingly getting some contradictory answers -- I'll have something to offer after I get it sorted out.

Roy Lewallen, W7EL

4354. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 09:56:37 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <dokip19d76e0uqaqcm1t3jt19ngg61d9r1@4ax.com>
Source record: 66851

On Thu, 8 Dec 2005 21:44:07 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I have been informed my GRNDWAV3 program is in error - it calculates
>the power input to a matched receiver to be 6dB greater than it ought
>to be, or exactly 4 times the correct power input.
>
>Most of my programs calculate results based on what I consider to be
>fundamental reasoning. But GRNDWAV3 is one of the few where I have
>adapted formulae from the text books or 'bibles'.
>
>My informant is an Icelandic amateur who appears to know what he is
>talking about and is mathematically very convincing. For various
>resons, for the time being I propose to leave him out of this
>discussion. That is, of course, if a discussion should evolve.
>
>The problem fundamentally revolves around the gain of short vertical
>antennas, both transmitting and receiving, above a perfect ground,
>relative to isotropic. But for present purposes what an isotrope
>actually is can be forgotten about. It exists only in one's
>imagination.
>
>Numbers cannot be avoided. So let's keep them as simple as possible by
>starting with the MF standard of 1 Kilowatt, radiated from a short
>vertical antenna above a perfect ground. Actual antenna height and
>frequency don't matter.
>
>According to the text books, the field strength from 1 Kw at 1
>kilometre = 300 millivolts, which (according to the text books) is
>correctly calculated by my program.
>
>To calculate matched reciever input power from field strength it is
>necessary to state vertical antenna height, frequency and radiation
>resistance. Again choosing simple values -

An alternative is to calculate the power collected by a lossless,
matched receiver as Pr=S*A.

In this case, S=0.3**2/(120*pi)

Kraus derives A (the effective apperture) for a short dipole to be
3/8/pi*wavelength**2.

This gives the power collected by the receiver as 6.4mW. If the
antenna and receiver were disected by the ground plane, wouldn't there
be 3.2mW developed in each half of the receiver load?

Owen
--

4355. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 11:10:46 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1134126646.365300.257600@o13g2000cwo.googlegroups.com>
Source record: 66852

Here is a link to the DX Engineering page regarding this antenna:
http://www.dxengineering.com/Parts.asp?ID=880&PLID=161&SecID=78&DeptID=22&PartNo=DXE%2DSWA%2D070

There is a link on this page for the manual in PDF..You can clearly see
that they use a 3 conductor round cable for the antenna.
3 wire flat zip cord or twinlead with a third wire laced between the
two conductors is another approach, I think.
Jim

4356. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 11:30:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11piqm05skatd27@corp.supernews.com>
Source record: 66853

The reason for the contradiction is that I got the first result of 1 volt for the base of a 1 meter vertical wire above perfect ground in a 1 V/m field by using NEC with a plane wave excitation source which produced a 1 V/m plane wave field. The 3 mW value I got later for Reg's model was obtained by generating a 1 V/m field by putting a conventional source at the base of a second short vertical. And what I've now determined after a considerable amount of experimentation is:

The current reported by NEC-2 or NEC-4 to be induced in a wire (or the voltage in its center or between base and ground) by an impinging field created by another antenna is exactly half the value it is when the same field is created instead by an NEC plane wave excitation source, when a ground plane is present. This doesn't occur in free space models, which seem to produce correct results.

Unless there's some problem with interpreting the meaning of the plane wave source's field value, it looks like this is a bug in NEC-2 and NEC-4. I've posted a query on a mailing list frequented by the real experts at using these programs, and I'll report back what I find out from them.

We really need a sound theoretical basis for deciding what the value of induced current or voltage should be, for a final determination of which answer is right and which is wrong. I'll try to take a good look at that tomorrow.

But in the meantime, we do know that the field strength generated by a short vertical with a source at its base is being reported correctly by NEC. NEC programs have been used very widely for determining induced currents and field strengths, and my guess is that the plane wave excitation feature is relatively rarely used, and less so over ground. Consequently, I'll put my money on the result obtained by exciting a second antenna to generate the field rather than on the plane wave excitation source result.

If this conjecture is correct, then I was wrong when I said in an earlier posting that the voltage at the base of a one meter wire over ground was one volt when exposed to a one V/m field -- it should be 0.5 volt. I got the 1 volt result by using an NEC plane wave excitation source -- ironically, after first verifying that I got the known theoretical result in free space. And my more recent posting giving the power in Reg's example antenna load as 3 mW rather than 12 is correct.

I'll post more as I find out more.

Roy Lewallen, W7EL

4357. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 12:08:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Qsemf.32597$tV6.5562@newssvr27.news.prodigy.net>
Source record: 66854

Reg Edwards wrote:
> Folding is quite beneficial then at 1.9 MHz.

Not only beneficial for 160m but also acceptable for all of HF.
It's a win/not-lose situation.

> How did you find what the loss actually is? Did you model it?

I modeled it using #14 copper wire and EZNEC and comparing the
maximum gain to the maximum gain of a dipole.

> How far apart are the 3 wires?

EZNEC forced me to put them ~7 inches apart (minimum spacing on 160m).
--
73, Cecil http://www.qsl.net/w5dxp

4358. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 12:17:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <SBemf.32598$tV6.23354@newssvr27.news.prodigy.net>
Source record: 66855

JimK2TL@gmail.com wrote:
> You can clearly see
> that they use a 3 conductor round cable for the antenna.

Seems to me a wider spacing would increase the efficiency.
--
73, Cecil http://www.qsl.net/w5dxp

4359. Re: stevie shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 12:40:36 UTC
From: Clark <CP@comcast.net>
Message-ID: <cLidnWze1OHV5gTenZ2dnUVZ_sednZ2d@comcast.com>
Source record: 66856
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Very truthful

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1134099135.131260.197790@g14g2000cwa.googlegroups.com...
> thread pruning
> Dr.Ace wrote:
>> "Steveo" <steveo-hed@excite.com> wrote in message
>> news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
>> > http://niggermania.com/
>> >
>>
>> Very Funny
>
> very rasist
>

4360. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 13:06:17 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <djfmf.201331$Io.150812@clgrps13>
Source record: 66857

"Owen Duffy" <owen@no.where> wrote in message
news:dokip19d76e0uqaqcm1t3jt19ngg61d9r1@4ax.com...
> On Thu, 8 Dec 2005 21:44:07 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>I have been informed my GRNDWAV3 program is in error - it calculates
>>the power input to a matched receiver to be 6dB greater than it
>>ought........
>>.........resistance. Again choosing simple values -
>
> An alternative is to calculate the power collected by a lossless,
> matched receiver as Pr=S*A.
>
> In this case, S=0.3**2/(120*pi)
>
> Kraus derives A (the effective apperture) for a short dipole to be
> 3/8/pi*wavelength**2.
>
> This gives the power collected by the receiver as 6.4mW. If the
> antenna and receiver were disected by the ground plane, wouldn't there
> be 3.2mW developed in each half of the receiver load?
>
> Owen

Then S = 2.387*10**(-4) W/m**2;

and A = 0.119*(Lambda)**2, where Lambda = 20m. (p.44)

Therefore A = 47.6 m**2;

and Pr = 11.36 mW.

Since we have done this modeling of incident E-fields before, should there
not be some correlation with NEC2?

Frank

PS, your FORTRAN notation threw me for a second.

4361. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 14:05:47 UTC
From: richardharrison@webtv.net
Message-ID: <20001-43998F3B-89@storefull-3253.bay.webtv.net>
Source record: 66858

"A factor of 2 is involved somewhere?"

First place I would look is at the coltage actually applied to the receiver. If the antenna intercepts 1 volt per meter in a 1-meter antenna, only 0.5 volt is applied to the receiver. The other 0.5 volt is lost to reradiation in a matched antenna system.

Best regards, Richard Harrison, KB5WZI

4362. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 14:52:53 UTC
From: richardharrison@webtv.net
Message-ID: <14250-43999A45-242@storefull-3258.bay.webtv.net>
Source record: 66859

Reg wrote:
"So we have a generator with open-circuit volts of 300 mV, with an internal resistance of 1.944 ohms, into an Rx load resistance of 1.944 ohms---."

You lose 1/2 the open-circuit voltage in a matched antenna`s radiation resistance. 1/2 the voltage in the receiver`s input resistance causes 1/2 the current. Received carrier power is only 1/4, or in other words, 6 db less than twice the voltage would produce were it available across the receiver`s input resistance.

0.15 volts squared over 1.944 ohms = 0.01157 watts on my Chinese calculator

Best regards, Richard Harrison, KB5WZI

4363. Re: Am Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 15:40:05 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <11pj9ah812sp9f9@corp.supernews.com>
Source record: 66860

thanks for all the help, I'll start researching an impedance matching transformer for my setup, I guess I'll probably need to wind a balun to match the antenna and coax

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:5903-43987AC2-247@storefull-3255.bay.webtv.net...
> Jeff Dieterlle wrote:
> "I ran RG 6-U coax to the roof of the factory (approx. 100 ft) and
> considered buying a loop antenna but at this group`s suggestion
> connected the coax to the long wire. The stations I`m interested in are
> Indianapolis 1070 kc and Chicago 670 kc & 1000 kc. I installed 200 ft of
> #12 ga insulated wire that is oriented in line with these 2 cities
> and....."
>
> Jeff didn`t say how far he is from the stations. All 3 stations run 50
> KW but have daytime directional patterns which may affect the signal
> strength he receives.
>
> 50 KW nondirectional can produce 1860 millivolts per meter at one mile
> or 9.3 millivolts at 200 miles. I said may because it depends on ground
> conductiviyty and other factors. I listen to to a 50 KW station 200
> miles away 24 hours.
>
> RG-6 has a capacitnance of 20.5pF/ft. So, 100 ft. totals 2050 pF. At
> 1000 KHz, its reactance is about 78 ohms. This is shunting the impedance
> of 61 meters of 12 gauge wire (0.0033 WL), a fairly figh capacitive
> reactance at 1000 KHz. This is a voltage divider. Most of the energy
> captured by the wire is dropped scross the wire and reradiated never
> reaching the receiver. That was why a loop which matched the coax was
> suggested.. Jeff pribably gets enough signal in his antenna. He might
> get more of it to his receiver using a broadband transformer between his
> antenna and coax which stepped doown the impedance to match the coax
> approximately. He may need to step it back up at the receiver end. I
> recall using this arrangement in 1938 with a General Electric all-band
> doublet kit and it worked well.
>
> Pointing the wire at the station is fine for a Beverage antenna but
> about 2 wavelengths is needed for a Beverage.. That wold be 1968 feet at
> 1000 KHz. The Beverage is vertically polarized, as needed to receive a
> ground wave. Otherwise, shorter antennas may do better at a more
> broadside attitude towards the signal wavefront. A random wire generally
> uses its vertical component to receive groundwaves.
>
> Best regards, Richard Harriison, KB5WZI

>

4364. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 15:41:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnc8jr$dg4$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66861

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:14250-43999A45-242@storefull-3258.bay.webtv.net...
> Reg wrote:
> "So we have a generator with open-circuit volts of 300 mV, with an
> internal resistance of 1.944 ohms, into an Rx load resistance of
1.944
> ohms---."
>
> You lose 1/2 the open-circuit voltage in a matched antenna`s
radiation
> resistance. 1/2 the voltage in the receiver`s input resistance
causes
> 1/2 the current. Received carrier power is only 1/4, or in other
words,
> 6 db less than twice the voltage would produce were it available
across
> the receiver`s input resistance.
>
> 0.15 volts squared over 1.944 ohms = 0.01157 watts on my Chinese
> calculator
>
==========

Yes Richard, I fully agree.

The trouble is that there are other ways of calculating receiver input power, seemingly equally valid. But they give an input power exactly 1/4 as big or 6 dB less.

Which way is correct? Terman, Kraus, Balani, their Bibles and numerous computer programs are all at loggerheads with each other. The very foundations of radio engineering are being undermined. ;o)

Reg.

4365. Re: LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts peoples names on moving contracts without THEIR Knowledge. (925) 876-7441 Lwest@chipmancorp.com 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 15:54:16 UTC
From: verynicemaria@hotmail.com
Message-ID: <1134143656.595951.180390@g49g2000cwa.googlegroups.com>
Source record: 66862
Cross-posted to: yu.oglasi,alt.internet.wireless,alt.cellular.cingular,rec.radio.amateur.antenna,alt.fifty-plus.friends

jermainsanchezrangel@hotmail.com wrote:
> LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts
> peoples names on moving contracts without THEIR Knowledge. (925)
> 876-7441 Lwest@chipmancorp.com 925-825-5000
> of CHIPMAN UNITED VAN LINES Caton Mayflower she likes to put peoples
> names on moving
> contracts with out there Knowledge or she likes to do Fraud & Forgery
> Concord,ca or Caton Mayflower Moving & Storage Movers & Relocation
> Service Dublin,ca (925) 876-7441, 925-887-5515,
> 925-825-5000, 800-825-3866,800-447-9771, 925-609-1800,
> 800-447-1771, 925-935-4073, 925-828-3985
> walnut creek,ca alamo,ca danville,ca san ramon,ca dublin,ca
> pleasanton,ca

this has been mailed in a xmas card to all on linda's street.

ROY & ROBERTA
MICHAEL & NANALEE
LARRY & WENDY
JOSEPH & MARGARET
BONNIE
CLINTON & SHARON
KEVIN & CANDIS
BRIAN & PAOLA
KENNETH & JOAN

4366. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 16:13:43 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <s8bjp1tieagefoa5k8fs6p0lhurftavcqk@4ax.com>
Source record: 66864
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Thu, 8 Dec 2005 22:24:17 -0500, "Dr.Ace" <NoSpam@BedfordSucks.com>
wrote:

>
>"Steveo" <steveo-hed@excite.com> wrote in message
>news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
>> http://niggermania.com/
>>
>
>Very Funny
>
Nice hit counter!

--

"What is now proved was once only imagin'd" - William Blake

4367. Re: can rotator power be used to power amplifier?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 16:34:09 UTC
From: jaepstein_63@yahoo.com
Message-ID: <1134146049.766141.4570@g49g2000cwa.googlegroups.com>
Source record: 66863

Replacing the coax makes a lot more sense, and is a good opportunity to
add some more outlets inside the house ... thanks.

4368. Re: G10 fiberglass rod needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 17:49:25 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <Fsjmf.616300$_o.502652@attbi_s71>
Source record: 66865

Check out this place http://www.mgs4u.com/fiberglass-tube-rod.htm

"Bob" <none@thistime> wrote in message
news:tMqdncCQzYTpqATeRVn-uw@giganews.com...
>I need about three feet (can be three pieces) of G10 rod about 1 1/2 to 2
>inches in diameter. Any suggestions as to a reasonably priced source?
> Thanks
>

4369. Re: stevie shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 18:25:13 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnci44$6lh$1@newsg1.svr.pol.co.uk>
Source record: 66866
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

> > very rasist

Yes those black people are aren't they. Ooh you mean the white people?? yea. shocking they should complain about TNB. The thing is, acting as they do, these black "niggers" (as the statements go and also how other black people class their lower brothers) alienate themselves and its no wonder that most "racist claims" are dismissed as TNB so the real genuine cases of racism tend to make us just think "here we go again" rather than take the claims seriously. Remember the cry wolf story.
Some of the stories on that site put me off pick and mix or help yourself foods. Not simply because of the blacks behaving like animals but anyone with any disease could "play" with the food your about to pick up.... urgh..... mind you, seeing some of the staff in McDonalds and similar eateries puts me off their cuisine somewhat too. My god, if you knew some of the things that happens to your food before you get it you'd never eat again....

Regards,
Graham
(Ps. Apologies if you were eating then)

4370. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 18:48:24 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <70kjp1p5ribr5aodg96k8iaopn3pos9kp5@4ax.com>
Source record: 66867

On Fri, 09 Dec 2005 13:06:17 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>
>"Owen Duffy" <owen@no.where> wrote in message
>news:dokip19d76e0uqaqcm1t3jt19ngg61d9r1@4ax.com...
>> On Thu, 8 Dec 2005 21:44:07 +0000 (UTC), "Reg Edwards"
>> <g4fgq.regp@ZZZbtinternet.com> wrote:
>>
>>>I have been informed my GRNDWAV3 program is in error - it calculates
>>>the power input to a matched receiver to be 6dB greater than it
>>>ought........
>>>.........resistance. Again choosing simple values -
>>
>> An alternative is to calculate the power collected by a lossless,
>> matched receiver as Pr=S*A.
>>
>> In this case, S=0.3**2/(120*pi)
>>
>> Kraus derives A (the effective apperture) for a short dipole to be
>> 3/8/pi*wavelength**2.
>>
>> This gives the power collected by the receiver as 6.4mW. If the
>> antenna and receiver were disected by the ground plane, wouldn't there
>> be 3.2mW developed in each half of the receiver load?
>>
>> Owen
>
>Then S = 2.387*10**(-4) W/m**2;
>
>and A = 0.119*(Lambda)**2, where Lambda = 20m. (p.44)

I thought Reg was talking about f=20E6, so Lambda~=15m isn't it?

>
>Therefore A = 47.6 m**2;
>
>and Pr = 11.36 mW.
>
>Since we have done this modeling of incident E-fields before, should there
>not be some correlation with NEC2?
>
>Frank
>
>PS, your FORTRAN notation threw me for a second.

Several languages use ** as the exponentiation operator, FORTRAN was probably the first. C, the C-like languages and IIRC most of the Algol languages use **. The ^ operator used in VBA is a logical operator in most languages.

Owen
--

4371. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 18:52:46 UTC
From: Lloyd <lloyd@no.spammmmm>
Message-ID: <7017833.8F8789@tarrnews.net>
Source record: 66868
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Thu, 8 Dec 2005 22:24:17 -0500, Dr.Ace wrote:
>
> "Steveo" <steveo-hed@excite.com> wrote in message
> news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
> > http://niggermania.com/
> >
>
> Very Funny

that web sight is hosted on a earthlink server and is in violation of
their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
complain about it and get the sight pulled. good pple must be
vigilant against hate just like k1man always says.

4372. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 19:04:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Vykmf.37307$D13.10648@newssvr11.news.prodigy.com>
Source record: 66869

Owen Duffy wrote:
> Several languages use ** as the exponentiation operator, FORTRAN was
> probably the first. C, the C-like languages and IIRC most of the Algol
> languages use **. The ^ operator used in VBA is a logical operator in
> most languages.

How about 10⁻⁴? :-)
--
73, Cecil http://www.qsl.net/w5dxp

4373. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 19:45:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pjnn0lfh0ui42@corp.supernews.com>
Source record: 66870

I've received an authoritative answer about NEC plane wave excitation. When a 1 V/m incident plane wave is specified via a plane wave source and a ground plane is present, the field strength at all points is 2 V/m, not 1 V/m as I had assumed. The rationale is that the "incident wave" is reflected by the ground plane, doubling its strength.

The conclusions from this are that:

1. NEC reports that the voltage from the base of a 1 meter electrically short vertical wire to perfect ground in the presence of a 1 V/m field is 0.5 volt, not 1 volt as I said in my earlier posting in response to a question by Reg. I apologize for the error.

2. The power intercepted by the matched dipole in the problem recently posed by Reg is approximately 3 mW, not 12. The EZNEC calculation I described, which does not use a plane wave source, is correct. The same result can be obtained with NEC by using two antennas as in EZNEC, or with a 212 V/m (peak, equal to 150 V/m RMS) plane wave source which produces a 300 V/m RMS field at the loaded antenna.

This is a good place to give an additional caution to people using NEC for calculations. NEC uses peak, not RMS values for all voltages and currents. Power results will be off by a factor of two or four if a user mistakenly assumes RMS values. EZNEC uses RMS values throughout. When Reg posed the dilemma about the factor of four disparity in reported powers, my first thought was that this was the cause. As it turned out, it wasn't, but caution is needed. Results should always be given a reality check, as Reg has done. Any model -- and this doesn't exclude the mathematical models we often consider "theory" -- can be subject to many errors, including but not limited to misapplication, misinterpretation, and limitations of an approximation or numerical calculation.

Roy Lewallen, W7EL

4374. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 20:16:13 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <m4pjp1tqrl49hjag9rfu1lgomfekiu3sq4@4ax.com>
Source record: 66871

On Fri, 09 Dec 2005 11:45:32 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>2. The power intercepted by the matched dipole in the problem recently
>posed by Reg is approximately 3 mW, not 12. The EZNEC calculation I
>described, which does not use a plane wave source, is correct. The same
>result can be obtained with NEC by using two antennas as in EZNEC, or
>with a 212 V/m (peak, equal to 150 V/m RMS) plane wave source which
>produces a 300 V/m RMS field at the loaded antenna.

To a certain extent, this comes back to a decision about whether
ground reflection contributes to the received power, and you are
saying that NEC assumes it does under plane wave excitation in
presence of a ground plane.

In "running the numbers", I note that the radiation resistance
indicated by NEC for a short dipole in free space is quite different
to that predicted by Kraus for a dipole with uniform current,
(Rr=80*pi()**2(L/Lambda)**2)!

Owen
--

4375. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 21:10:41 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <+rzH3fuRLfmDFAif@ifwtech.co.uk>
Source record: 66872

Owen Duffy wrote:
>>PS, your FORTRAN notation threw me for a second.
>
>Several languages use ** as the exponentiation operator, FORTRAN was
>probably the first. C, the C-like languages and IIRC most of the Algol
>languages use **. The ^ operator used in VBA is a logical operator in
>most languages.
>
They say a FORTRAN-trained programmer can write FORTRAN in any
language, .AND. of course that's .TRUE.

--
73 from Ian GM3SEK

4376. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 21:16:32 UTC
From: "void * clvrmnky()" <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <Qummf.4780$43.2672@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 66873

On 09/12/2005 2:54 PM, Walt Davidson wrote:
> On 9 Dec 2005 18:52:46 GMT, Lloyd <lloyd@no.spammmmm> wrote:
>
>> that web sight is hosted on a earthlink server and is in violation of
>> their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
>> complain about it and get the sight pulled. good pple must be
>> vigilant against hate just like k1man always says.
>
> I am very surprised to hear it. I thought such things were perfectly
> legal in the USA, under the terms of the First Amendment.
>
> In countries like the UK, where free speech is not a right, it would
> indeed be illegal.
>
> 73 de G3NYY

Depends. What does "free" mean, in the real world?

It is not only freedom to, but also freedom from. Many countries have reasonable limits on things that are defined, in a strict legal way, as "hate speech" because their citizens demanded it. There are reasonable limitations on what you can say publicly as a citizen in front of other citizens just like there are reasonable limits on how you build buildings, drive cars and many other things that affect other citizens who have the same rights and privileges as you.

That is, there is a notion that I can invoke my rights as a citizen to *not* hear hate-filled diatribes that otherwise have no redeeming value. It is a balance between "freedom to" and "freedom from".

Citizens are all free to argue what these "reasonable limits" constitute, and whether a specific instance of disagreement on the matter falls under the law or not. You can have your day in court, if you like, but it is unreasonably to say that everyone has the "right" to say anything they want, anywhere they want. Doing so actually diminishes other people's rights.

In fact, the First Amendment is not an absolute. There is, and will continue to be, many specific instances where your First Amendment rights are suspended because the law of land demands it.

Anyway, if Earthlink is the hosting company, then it is their private space that they let their clients use. There is nothing in the First Amendment that guarantees any sort of free speech rights in this context.

Another context: if I invite someone into my house and they say or do something I disagree with violently such that I feel it doesn't deserve rebuttal or discussion, I am free to ask them to shut the hell up and leave. First Amendment rights do not automatically extend into private spaces in the US.

Similarly, if I have a web forum hosted in the US, and somebody posts things that I don't like, or do not wish other members of the forum to see, I am perfectly within my rights to erase the material and delete their account. They have no First Amendment rights on any such site, and bitching about free-speech is absolutely meaningless and without merit. There is *no* such guarantee of free-speech on such sites. Well, except possibly under very specific circumstances, such as if I was taking public money to run a public service.

A newspaper is under no obligation to print any letters to the editor, for example.

If the information we are discussing was hosted on a truly public forum, then First Amendment rights could be invoked. Countries where there are hate-speech laws usually side-step this issue by having the hosting companies act only as "carriers" with no editorial control over their subscribers. The onus for whether or not you are publishing hate-speech then falls to the government acting on behalf of "the people". The providers usually enforce only those terms and conditions that would impact other people sharing the service (i.e., technical issues like bandwidth use, hacking, and so forth).

Maybe we should be asking ourselves why we are in such a hurry to give up our private spaces, physical and virtual, to corporate interests.

4377. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 21:49:31 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <Wd6dnT00zZRxZgTeRVn-gQ@web-ster.com>
Source record: 66874

Owen Duffy wrote:
> On Fri, 09 Dec 2005 13:06:17 GMT, "Frank" <ve6cb@nospam.telus.net>
> wrote:
>
>
>>"Owen Duffy" <owen@no.where> wrote in message
>>news:dokip19d76e0uqaqcm1t3jt19ngg61d9r1@4ax.com...
>>
>>>On Thu, 8 Dec 2005 21:44:07 +0000 (UTC), "Reg Edwards"
>>><g4fgq.regp@ZZZbtinternet.com> wrote:
>>>
>>>
>>>>I have been informed my GRNDWAV3 program is in error - it calculates
>>>>the power input to a matched receiver to be 6dB greater than it
>>>>ought.....
>>>>.....resistance. Again choosing simple values -
>>>
>>>An alternative is to calculate the power collected by a lossless,
>>>matched receiver as Pr=S*A.
>>>
>>>In this case, S=0.3**2/(120*pi)
>>>
>>>Kraus derives A (the effective apperture) for a short dipole to be
>>>3/8/pi*wavelength**2.
>>>
>>>This gives the power collected by the receiver as 6.4mW. If the
>>>antenna and receiver were disected by the ground plane, wouldn't there
>>>be 3.2mW developed in each half of the receiver load?
>>>
>>>Owen
>>
>>Then S = 2.387*10**(-4) W/m**2;
>>
>>and A = 0.119*(Lambda)**2, where Lambda = 20m. (p.44)
>
>
> I thought Reg was talking about f=20E6, so Lambda~=15m isn't it?
>
>
>>Therefore A = 47.6 m**2;
>>
>>and Pr = 11.36 mW.
>>
>>Since we have done this modeling of incident E-fields before, should there

>>not be some correlation with NEC2?
>>
>>Frank
>>
>>PS, your FORTRAN notation threw me for a second.
>
>
> Several languages use ** as the exponentiation operator, FORTRAN was
> probably the first. C, the C-like languages and IIRC most of the Algol
> languages use **. The ^ operator used in VBA is a logical operator in
> most languages.
>
> Owen
> --

It's been a while since you've done mathematical stuff in C, hasn't it?

C does _not_ use a '**' operator. If you want to raise y to the x power
you use "pow(y, x)".

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4378. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 21:50:05 UTC
From: Lloyd <lloyd@no.spammmmm>
Message-ID: <870173.2458F9@tarrnews.net>
Source record: 66875
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Fri, 09 Dec 2005 19:54:54 +0000, Walt Davidson <g3nyy@despammed.com> wrote:
> On 9 Dec 2005 18:52:46 GMT, Lloyd <lloyd@no.spammmmm> wrote:
>
> >that web sight is hosted on a earthlink server and is in violation of
> >their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
> >complain about it and get the sight pulled. good pple must be
> >vigilant against hate just like k1man always says.
>
> I am very surprised to hear it. I thought such things were perfectly
> legal in the USA, under the terms of the First Amendment.
>
> In countries like the UK, where free speech is not a right, it would
> indeed be illegal.
>

this isnt a matter of crimenal law. it is a matter of the provider's
TOS which is a contract between the web sight and earthlink. I am
very surprised that you dont know about TOS and how a provider can
kick you off if you violate his TOS. sheeze.

4379. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 21:58:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pjvff4amseu8c@corp.supernews.com>
Source record: 66776

Owen Duffy wrote:
> . . .
> In "running the numbers", I note that the radiation resistance
> indicated by NEC for a short dipole in free space is quite different
> to that predicted by Kraus for a dipole with uniform current,
> (Rr=80*pi()**2(L/Lambda)**2)!

The only way to achieve uniform current on a short dipole is with large capacity hats at the ends of the dipole. Otherwise, the current tapers nearly linearly from a maximum at the center to zero at the ends. If you'll look closely at Kraus' figure of the short dipole he analyzes, you'll see that it has capacity hats. Nearly all other authors analyze just a straight wire which doesn't have those hats, and consequently linear rather than uniform current distribution. And of course get quite a different result.

I'll bet you didn't include large capacity hats in your model. I haven't tried it, but you should get results much closer to Kraus' if you do. NEC analysis gives radiation resistance very close to theoretical when analyzing a plain straight wire dipole, but this isn't what Kraus does in his book. It is interesting, though, to see how much effect the wire diameter has on the impedance, and that the wire has to be very thin indeed to approach the theoretical impedance for an infinitesimally thin dipole.

Roy Lewallen, W7EL

4380. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 22:01:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pjvmoh3ot5234@corp.supernews.com>
Source record: 66777

Owen Duffy wrote:

>
> An alternative is to calculate the power collected by a lossless,
> matched receiver as Pr=S*A.
>
> In this case, S=0.3**2/(120*pi)
>
> Kraus derives A (the effective apperture) for a short dipole to be
> 3/8/pi*wavelength**2.
>
> This gives the power collected by the receiver as 6.4mW. If the
> antenna and receiver were disected by the ground plane, wouldn't there
> be 3.2mW developed in each half of the receiver load?

I believe that's correct. Note that Kraus uses a plain wire dipole for his aperture correction, but a dipole with end hats (and therefore uniform current) for input impedance calculations. See my other recent posting for further comments.

Roy Lewallen, W7EL

4381. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 22:01:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <tdvjp1lrvlo4l919kl1fmernbae7t59l4f@4ax.com>
Source record: 66778

On Fri, 09 Dec 2005 13:49:31 -0800, Tim Wescott <tim@seemywebsite.com>
wrote:

>It's been a while since you've done mathematical stuff in C, hasn't it?
>
>C does _not_ use a '**' operator. If you want to raise y to the x power
>you use "pow(y, x)".

It has, I tend to do most my ad-hoc stuff in Perl these days, and it
uses the ** operator. Perl is c-like, but as you say Tim, it did not
inherit the ** op from C.

Languages that lack an exponentiation operator are a right pain in the
butt, but there are lots of them.

Owen
--

4382. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 22:06:30 UTC
From: N0VFP <lloyd_n0vfp@yahoo.com>
Message-ID: <1134165990.330555.233870@g44g2000cwa.googlegroups.com>
Source record: 66779
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd wrote:
> On Fri, 09 Dec 2005 19:54:54 +0000, Walt Davidson <g3nyy@despammed.com> wrote:
> > On 9 Dec 2005 18:52:46 GMT, Lloyd <lloyd@no.spammmmm> wrote:
> >
> > >that web sight is hosted on a earthlink server and is in violation of
> > >their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
> > >complain about it and get the sight pulled. good pple must be
> > >vigilant against hate just like k1man always says.
> >
> > I am very surprised to hear it. I thought such things were perfectly
> > legal in the USA, under the terms of the First Amendment.
> >
> > In countries like the UK, where free speech is not a right, it would
> > indeed be illegal.
> >
>
> this isnt a matter of crimenal law.

"isnt" "crimenal" - Mongolloyd makes good fuck ups!

> it is a matter of the provider's
> TOS which is a contract between the web sight

"web sight" LOL LOL LOL LOL LOL @ the Athens Asshole.

>and earthlink. I am
> very surprised that you dont know about TOS and how a provider can
> kick you off if you violate his TOS. sheeze.

You will soon find out, tubby.

4383. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 23:19:18 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <ecadnRp6SuDmjAfeRVn-pw@comcast.com>
Source record: 66780
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:s3ojp1h5eelfio1s99nl7vsoib82rtlir2@4ax.com...
> On 9 Dec 2005 18:52:46 GMT, Lloyd <lloyd@no.spammmmm> wrote:
>
>>that web sight is hosted on a earthlink server and is in violation of
>>their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
>>complain about it and get the sight pulled. good pple must be
>>vigilant against hate just like k1man always says.
>
> I am very surprised to hear it. I thought such things were perfectly
> legal in the USA, under the terms of the First Amendment.
>
> In countries like the UK, where free speech is not a right, it would
> indeed be illegal.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

An ISP is a private entity and does not have to allow it even if it is
legal. When you sign up with an ISP, you are entering into a contract and
agreeing to its terms and conditions. If the ISP says no hate speech, then
they can legally pull the page or sight and even cancel the user's service
due to violating the contract.

Dee D. Flint, N8UZE

4384. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 23:41:28 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pk5hhs462kc11@news.supernews.com>
Source record: 66781
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Well at least with this we all know who the NIGGER is.....

--

Charlie

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:g13kp1d3c3ieojgg128lthrhsp6psru1v1@4ax.com...
> On 9 Dec 2005 21:50:05 GMT, Lloyd <lloyd@no.spammmmm> wrote:
>
>>this isnt a matter of crimenal law. it is a matter of the provider's
>>TOS which is a contract between the web sight and earthlink. I am
>>very surprised that you dont know about TOS and how a provider can
>>kick you off if you violate his TOS. sheeze.
>
> I think the probability of this web site being pulled by the ISP is
> marginally lower than the probability of having snow in Miami, FL in
> July.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

4385. Re: The factor of 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-09 23:54:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q36kp1pqlh6319ncbkov8hcpmob3m30aps@4ax.com>
Source record: 66782

On Fri, 9 Dec 2005 15:41:47 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Which way is correct? Terman, Kraus, Balani, their Bibles and
>numerous computer programs are all at loggerheads with each other.

This is simply through massive missinterpretation by you, who disdain
the work you "recite" (a suspect activity) and the complete absence of
your using the first principles of Lord Kelvinator, whom you claim to
revere for his clarity in approaching problems through demonstrables.

Result? YAT (yet another troll)

4386. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 01:06:44 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <ESpmf.2354$Tg2.1948@newsread1.news.pas.earthlink.net>
Source record: 66783

Mike Coslo wrote:

> Richard Clark wrote:
>
>> On Wed, 07 Dec 2005 05:05:51 GMT, "W. Watson"
>> <wolf_tracks@invalid.com> wrote:
>>
>>
>>> Maybe it had some affect. Dunno. I guess I could always try the
>>> original one. Tomorrow.
>>
>>
>>
>> Hi OM,
>>
>> It could (and that would be a good check), but my guess is a change of
>> weather will make more difference. If so, we go into the third chorus
>> of Classic indication of a bad ground, or a ground loop.
>>
>> A bad ground will stay with you for a very long time. A ground loop
>> can come or go with the same appearance of:
>> love,
>> superstition,
>> the deal of a poker hand,
>> or a political forecast.
>
>
> Quite possibly there is some sort of grounding issue. I only bring
> up the monitor possibility because I have seen the way some monitors,
> and the circuitry that runs them, can really sing when a change is made.
> What adds spice to the problem is how Windoze will sometimes change
> resolutions on ya. Happens a lot more in DOS, but if a person is a gamer
> - or a Ham who still uses DOS - it can come into play more often than we
> might think.
>
> My interest is piqued! Mr Watson - don't you dare solve this problem
> and not let us know what the cause was!!!! 8^)
>
> - 73 de Mike KB3EIA -

Hi, I plan to let everyone know. It has garnered a lot of interest.

The problem went away about 5 days or more ago. I reported on it. As several have predicted when I posted that, it's back!!! Interesting timing. I sent the C. Crane device back about the same time it returned.

I haven't been able to switch the old monitor back in, but in view of the return of the noise, I guess that's unnecessary. My shoulder is real cranky, so I haven't been able to make the swap.

Someone is sending me a corcom filter, but I haven't received it yet. I tried getting a tripplite outlet. I should have bought one while I was at HSC in Sacramento last week. They had several multi-outlet filters. Jameco and Digi-Key struck out. It's too far from here to jog down there.

The story continues. Stay tuned.

Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

"He who laughs, lasts." -- Mary Pettibone Poole
--

Web Page: <home.earthlink.net/~mtnviews>

4387. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 01:33:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Qfqmf.37971$D13.1359@newssvr11.news.prodigy.com>
Source record: 66784
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Walt Davidson wrote:
> I am very surprised to hear it. I thought such things were perfectly
> legal in the USA, under the terms of the First Amendment.

It's not illegal - no law has been broken. It is simply against
Earthlink's published guidelines. Mass market ISP's simply cannot
afford the free market fallout from such politically incorrect
hostings.
--
73, Cecil http://www.qsl.net/w5dxp

4388. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 02:29:12 UTC
From: Lloyd <lloyd@no.spammmmm>
Message-ID: <87017833.2458F9@tarrnews.net>
Source record: 66785
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On 9 Dec 2005 14:06:30 -0800, N0VFP imposter wrote:
>
> "web sight" LOL LOL LOL LOL LOL @ the Athens Asshole.
>

Saying LOL is *sooooo* gay!

> >and earthlink. I am
> > very surprised that you dont know about TOS and how a provider can
> > kick you off if you violate his TOS. sheeze.
>
> You will soon find out, tubby.

And you will find out you shouldnt impursonate N0VFP with a google
account, port-o-let boy. I have writen to them again and pointed out
how you violate their TOS with every post.

why is it that gay pple like you and Todd are so full of hate?

4389. Re: hi im crisco kathy

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 02:57:34 UTC
From: Dana <dana@panix.com>
Message-ID: <Pine.NEB.4.63.0512092156480.27635@panix1.panix.com>
Source record: 66786
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Well, I just looked you up in the callbook, and you are a ham for sure. I had to check, cause you posted to rec.radio.cb.

On Fri, 2 Dec 2005, Kathy Lee wrote:

> I AM CRISCO KATHY,TAX SEASON IS ALMOST UPON US. I
> CAN GET YOU THE BEST
> RETURN. IT MIGHT BE A LITTLE BIT ILLEGAL.BUT WHAT
> THE HECK,THE
> GOVERMENT TAKES TO MUCH OF OUR MONEY. BE SURE AND
> BRING A BIG CAN OF
> CRISCO WITH YOU. I WORK BEST ON MY KNEES WHILE
> SOMEONE SLATHERS MY FAT
> ASS WITH CRISCO. BRING A BIG CAN, I HAVE A VERY
> LARGE ASS.
>
>
>
>

4390. Re: stevie shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 03:11:27 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051209221127.773$NL@newsreader.com>
Source record: 66787
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
> (Ps. Apologies if you were eating then)
>
burp

4391. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 03:23:42 UTC
From: Who said I was Roger? <NotRoger@stalkingLloyd.com>
Message-ID: <dndhiv$o2t$0@pita.alt.net>
Source record: 66788
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Lloyd" <lloyd@no.spammmmm> wrote in message
news:87017833.2458F9@tarrnews.net...
On 9 Dec 2005 14:06:30 -0800, N0VFP imposter wrote:
>
> "web sight" LOL LOL LOL LOL LOL @ the Athens Asshole.
>

Saying LOL is *sooooo* gay!

> >and earthlink. I am
> > very surprised that you dont know about TOS and how a provider can
> > kick you off if you violate his TOS. sheeze.
>
> You will soon find out, tubby.

And you will find out you shouldnt impursonate N0VFP with a google
account, port-o-let boy. I have writen to them again and pointed out
how you violate their TOS with every post.

why is it that gay pple like you and Todd are so full of hate?
//////////////////////////////

When one considers the source, Tom Shelly, one can almost understand the
mindset of a backwards thinking hillard.
Shelly and "reb biker" are the result of inbreeding and are yet further
proof that siblings should not marry.

4392. test 2

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 03:41:01 UTC
From: bub@hotmail.com
Message-ID: <439a4e3a.6758688@aioe.cjb.net>
Source record: 66789

Please ignore this test.....

4393. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 04:06:29 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051209230629.396$yo@newsreader.com>
Source record: 66790
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

> why is it that gay pple like you and Todd are so full of hate?
>
Cuz of niggermania.

4394. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 05:03:03 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051210000303.410$Bv@newsreader.com>
Source record: 66791
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd <lloyd@no.spammmmm> wrote:
> On Thu, 8 Dec 2005 22:24:17 -0500, Dr.Ace wrote:
> >
> > "Steveo" <steveo-hed@excite.com> wrote in message
> > news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
> > > http://niggermania.com/
> > >
> >
> > Very Funny
>
> that web sight is hosted on a earthlink server and is in violation of
> their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
> complain about it and get the sight pulled. good pple must be
> vigilant against hate just like k1man always says.
>
Tell em Steveo says fuck them, or anyone that looks like them.

4395. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 05:09:58 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <Gqtmf.30045$dO2.562@newssvr29.news.prodigy.net>
Source record: 66792

Definitely not a Channel Master, looks more like an Antennas Direct DB4ï¿½..

Bill wrote:
> Channel Master 4221.....your neighbor is trying for HDTV from his local air
> TV stations!!!
>
> -Bill
>
>
>
> "Jimmy" <fmuta@hotmail.com> wrote in message
> news:1133964872.439314.98450@g49g2000cwa.googlegroups.com...
>
>>Please excuse a curious newbie. This photo is from a neighbor's roof
>>top. What kind of antenna is this?
>>http://www.keepmyfile.com/image/399e1e252372
>>
>>Thanks.
>>
>
>
>

4396. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 05:19:37 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051210001937.485$Hm@newsreader.com>
Source record: 66793
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Dee Flint" <deeflint01@comcast.net> wrote:
>> An ISP is a private entity and does not have to allow it even if it is
> legal. When you sign up with an ISP, you are entering into a contract
> and agreeing to its terms and conditions. If the ISP says no hate
> speech, then they can legally pull the page or sight and even cancel the
> user's service due to violating the contract.
>
> Dee D. Flint, N8UZE
>
Hello Dee.

As fate would have it, most times the isp couldn't care less about usenet.

Why can't we all do a bong as radio operators and report back? These
cross-posted imaginary lines between bands and privileges turn into flames
for the most part on the rec.radio circuit, reckon?

The no-code apartment dwellers' have drawn too much attention to themselves
already it seems, and yet they cry for an easier entry to phone.

The whole ball -o- wax is slowly dying but that's another topic for the new
year. At any rate, I've always respected your opinion so far, Dee.

4397. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 05:31:35 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051210003135.670$oB@newsreader.com>
Source record: 66794
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Walt Davidson <g3nyy@despammed.com> wrote:
> On 9 Dec 2005 21:50:05 GMT, Lloyd <lloyd@no.spammmmm> wrote:
>
> >this isnt a matter of crimenal law. it is a matter of the provider's
> >TOS which is a contract between the web sight and earthlink. I am
> >very surprised that you dont know about TOS and how a provider can
> >kick you off if you violate his TOS. sheeze.
>
> I think the probability of this web site being pulled by the ISP is
> marginally lower than the probability of having snow in Miami, FL in
> July.
>
> 73 de G3NYY
>
...or getting hit by lightning twice.

4398. Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 05:40:43 UTC
From: Ross Biggar <rbiggar@xtra.co.nz>
Message-ID: <rTtmf.7128$vH5.363932@news.xtra.co.nz>
Source record: 66795

I am putting up a second tower , but it will be about 200feet from the shack
and about 70feet high.
What coax is recommended to reduce loss to a minimum,and to feed a multiband
beam with a 2kw amplifier.
Hard line excepted due to cost.
Regards
Ross
ZL1WN

4399. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 06:55:25 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <vnaq63-gep.ln1@p400bob.personal.cox.net>
Source record: 66797

Hi Ross

300ft of RG213 maybe? Thats about 3.5dB loss at 30MHz assuming a 1.5:1
VSWR. At 14MHz its about 2.4dB loss.

LMR400 at about the same diameter as RG213 is just under half the loss.
Its also cheaper than RG213 but a bit harder to terminate into connectors.

RG6 may also be usable and much cheaper (being TV/CATV coax) as it has
only slightly more loss than RG213. Its 75 ohms though if thats an issue.

(http://www.ocarc.ca/coax.htm)

There will be a much lower loss if you use open wire feeder... You could
no doubt use broadband baluns at each end to change back to coax. You
could also make your own feeder probably much cheaper than using coax.

I seriously dont think the line loss figures in the coax mentioned above
are important for HF work. You are of course losing half your power at
higher freqs.

Cheers Bob W5/VK2YQA

Ross Biggar wrote:
> I am putting up a second tower , but it will be about 200feet from the shack
> and about 70feet high.
> What coax is recommended to reduce loss to a minimum,and to feed a multiband
> beam with a 2kw amplifier.
> Hard line excepted due to cost.
> Regards
> Ross
> ZL1WN
>
>

4400. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 07:04:30 UTC
From: F8BOE <f8boe@bluemail.ch>
Message-ID: <439a7dfd$0$29018$626a14ce@news.free.fr>
Source record: 66796

for which band?

4401. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 07:56:58 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pl2ihjg99tbb4@news.supernews.com>
Source record: 66798

I would recommend you take a look at Davis RF "BuryFlex" 9914. It is very nearly the exact same loss per 100ft (within a couple tenths of a db) as LMR400 and/or 9913. It can be directly buried in the soil with no other provisions needed. It has an abrasion resistant non-contaminating jacket that has a warranted 20 year service life. It is also quite affordable at about $.60/ft. It is very flexible and indeed is fine even as rotator loops. I use it on all bands I run from HF thru 6M and 2M. It uses standard UHF or N connectors as well. Loss per 100ft at 400MHZ is 2.9db

Check it out here....

1. http://www.davisrf.com/ham1/coax.htm#buryflex

--

Charlie

"Ross Biggar" <rbiggar@xtra.co.nz> wrote in message
news:rTtmf.7128$vH5.363932@news.xtra.co.nz...
>I am putting up a second tower , but it will be about 200feet from the
>shack and about 70feet high.
> What coax is recommended to reduce loss to a minimum,and to feed a
> multiband beam with a 2kw amplifier.
> Hard line excepted due to cost.
> Regards
> Ross
> ZL1WN
>

4402. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 08:00:25 UTC
From: moparholic <twistedhed@wildfun.com>
Message-ID: <1134201625.495046.272310@g14g2000cwa.googlegroups.com>
Source record: 66799
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Steveo wrote:
<bitch snipped>

sharkie wants to feel the walls of your ass.

4403. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 08:00:58 UTC
From: moparholic <twistedhed@wildfun.com>
Message-ID: <1134201658.905696.177240@g43g2000cwa.googlegroups.com>
Source record: 66800
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Steveo wrote:
<bitch snipped>

sharkie wants to feel the walls of your ass.

4404. Re: stevei shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 08:15:22 UTC
From: Steveo <steveo-hed@excite.com>
Message-ID: <1134202521.988811.125180@z14g2000cwz.googlegroups.com>
Source record: 66801
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

an_old_cocksucker wrote:

<bitch snip>

lets jack off together on atv.....................

4405. Re: stevei shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 08:16:07 UTC
From: Steveo <steveo-hed@excite.com>
Message-ID: <1134202566.986391.278410@f14g2000cwb.googlegroups.com>
Source record: 66802
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

http://niggermania.com/

4406. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 08:26:03 UTC
From: Ross Biggar <rbiggar@xtra.co.nz>
Message-ID: <siwmf.7145$vH5.364526@news.xtra.co.nz>
Source record: 66803

Yes that is a good question, I forgot to mention.
primary use will be on 20m,
Thanks
Ross

"F8BOE" <f8boe@bluemail.ch> wrote in message
news:439a7dfd$0$29018$626a14ce@news.free.fr...
> for which band?

4407. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 08:36:55 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Y3eOgQEnOpmDFAmG@ifwtech.co.uk>
Source record: 66804

Ross Biggar wrote:
>I am putting up a second tower , but it will be about 200feet from the shack
>and about 70feet high.
>What coax is recommended to reduce loss to a minimum,and to feed a multiband
>beam with a 2kw amplifier.
>Hard line excepted due to cost.

At HF and with low SWR, anything of RG213 size or larger should be OK as regards cable heating... but in reality you are not aiming to reduce the losses "to a minimum". You're actually making a three-way balance between losses, availability and cost.

(Re availability and cost: people in the USA should note that Ross is in New Zealand. Coax is heavy, and international shipping costs are horrendous, so Ross has a much narrower range of options than you do.)

"Cost" will also include the cost of repairs and replacement - and this can be a big consideration with a long run of cable because it's extremely important to keep the jacket free from any damage where water can get in. Capillary action can suck water into the braid over very long distances from the initial location of the damage, and corrosion of the braid can drastically increase the losses. So even minor physical damage can have big electrical consequences, and can effectively destroy a long section of line.

I'm in a similar situation here, with a new tower and LF verticals. The cables will have to run a long distance over rough land covered with thorns and sharp stones... and it's usually wet too. For all those reasons, I am not going to use braided coax, but will try *very very* hard to locate some surplus hardline.

The advantage of foam-filled hardline is that it's largely immune to minor damage from the outside. If the plastic jacket is cut or even removed completely, it doesn't matter at all because you still have solid copper to keep the water out. And even if you take a slice off the copper sheath with the mower (BTDT), water will not migrate along the inside because the closed-cell foam is firmly bonded to the inside surface of the sheath.

You certainly don't have to buy hardline at new prices - though even there you might be pleasantly surprised (for example there's an outlet in VK-land whose prices are very reasonable). Your options will depend on what's available in ZL, and to find out you may have to tap a few contacts.

For example, in the UK there's a lot of surplus hardline is coming out of cellular, broadcast and other VHF/UHF/microwave sites as they are being upgraded to the next generation. A lot fo this goes straight to scrap copper, but some gets diverted into the surplus market. Short lengths appear quite often at radio flea markets ("rallies"), and if you ask, the guys generally have much longer lengths back home at much lower prices.

(In the USA they also have aluminium-jacketed cable TV hardline. It doesn't exist in the UK, but if it's relevant in ZL there are people in this newsgroup who know about it.)

Crazy as it may sound, the larger sizes of hardline can be cheaper on the surplus market than the more popular "half-inch" size. The larger cables are more difficult to transport and less convenient to handle, so there are fewer buyers and that drives the price down. Even so, 2-3 people can handle the lengths you are considering, and in a fixed installation you only have to lay it once... and then you really could say you've reduced the losses "to a minimum".

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4408. Re: C. Crane's Twin Ferrite Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 10:51:11 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <zqymf.2498$Tg2.1952@newsread1.news.pas.earthlink.net>
Source record: 66805

...
> Hi, I plan to let everyone know. It has garnered a lot of interest.
>
> The problem went away about 5 days or more ago. I reported on it. As
> several have predicted when I posted that, it's back!!! Interesting
> timing. I sent the C. Crane device back about the same time it returned.
>
> I haven't been able to switch the old monitor back in, but in view of
> the return of the noise, I guess that's unnecessary. My shoulder is real
> cranky, so I haven't been able to make the swap.
>
> Someone is sending me a corcom filter, but I haven't received it yet. I
> tried getting a tripplite outlet. I should have bought one while I was
> at HSC in Sacramento last week. They had several multi-outlet filters.
> Jameco and Digi-Key struck out. It's too far from here to jog down there.
>
> The story continues. Stay tuned.
And now it has stopped. What strangeness.

4409. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 11:08:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pldprad26mca3@corp.supernews.com>
Source record: 66806

Owen Duffy wrote:
>
> An alternative is to calculate the power collected by a lossless,
> matched receiver as Pr=S*A.
>
> In this case, S=0.3**2/(120*pi)
>
> Kraus derives A (the effective apperture) for a short dipole to be
> 3/8/pi*wavelength**2.
>
> This gives the power collected by the receiver as 6.4mW. If the
> antenna and receiver were disected by the ground plane, wouldn't there
> be 3.2mW developed in each half of the receiver load?

I found another source (Ramo et al) which directly gives the ratio of power in the load of a matched receiving antenna to the power applied to a transmitting antenna, in terms of the effective apertures of the antennas. This doesn't require the intermediate step of calculating field strength. The equation is:

Wr/Wt = (Aer * Aet) / (lambda^2 * r^2)

where:
Wr, Wt are received and transmitted power respectively
Aer, Aet are the receiving and transmitting antenna effective apertures
lambda = wavelength
r = distance between the antennas

Note that effective aperture, like other measures of an antenna pattern, is a function of the direction from the antenna. So this equation is correct regardless of antenna orientation as long as Aer and Aet are correctly calculated.

Letting

K = 3/(8 * pi) ~ 0.1194

we can write the equation cited by Owen for effective aperture of a short dipole in its most favored direction (broadside) in free space as

Ae = K * lambda^2

(This is the effective aperture of an infinitesimally short dipole. However, it changes very little with length when the dipole is electrically short. The effective aperture broadside to a half wave dipole is only 10% greater.)

Then we get that

Wr = Wt * (K^2 * lambda^4) / (lambda^2 * r^2)
= Wt * K^2 * lambda^2 / r^2

For Reg's example, lambda = 15 meters and r = 1 km. Since this is a free space analysis involving dipoles so far, I'll apply 2 kW (Wt) to the transmitting dipole, resulting in Wr = 6.412 mW.

Now we can split the model exactly in half with a ground plane. On the top of the ground plane, the transmitting antenna has exactly half the applied power, or 1 kW, which is what we had in Reg's example. Half the load power is in the upper plane also, so we have 3.206 mW for the load power in Reg's example setup. This is very close to the 3.234 mW result from the EZNEC model.

The antenna's effective height (that is, the ratio of induced voltage to field strength) has been at issue. As Reg pointed out, ~ 3 mW at the load requires an effective height of 0.5 meter for the 1 meter high antenna. (I incorrectly gave it as 1 m in an earlier posting.) I did find an explicit equation for effective height for a vertical over perfect ground, in King, Mimno, and Wing (Dover edition, p. 165). This also confirms that the correct effective height is 0.5 m for the 1 m electrically short vertical antenna over ground.

I'm satisfied that we have the answer to Reg's question. It's been an educational process for me -- thanks for posing it.

One final note, regarding the NEC applied plane wave. My earlier statement that the resulting field is twice the plane wave source magnitude when a ground plane is present is true only when the plane wave is applied over perfect ground at exactly grazing incidence (zenith angle = 90 deg.). If applied from other angles the resulting field strength will be different. If you apply a vertically polarized wave over a ground plane, I believe the resulting field strength will look like the pattern from a vertical radiator over a perfect ground plane -- strongest when applied at the horizon, decreasing when applied at higher angles, and dropping to zero if applied from directly overhead. I haven't confirmed this, but believe it's necessary in order to get a receiving pattern that's the same as the transmitting pattern. So use it with caution when a ground plane is present, and don't casually make assumptions about the resulting field.

Roy Lewallen, W7EL

4410. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 11:18:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11plec7eqh96s81@corp.supernews.com>
Source record: 66807

Charlie wrote:
> I would recommend you take a look at Davis RF "BuryFlex" 9914. It is very
> nearly the exact same loss per 100ft (within a couple tenths of a db) as
> LMR400 and/or 9913. It can be directly buried in the soil with no other
> provisions needed. It has an abrasion resistant non-contaminating jacket
> that has a warranted 20 year service life. It is also quite affordable at
> about $.60/ft. It is very flexible and indeed is fine even as rotator
> loops. I use it on all bands I run from HF thru 6M and 2M. It uses standard
> UHF or N connectors as well. Loss per 100ft at 400MHZ is 2.9db
>
> Check it out here....
>
> 1. http://www.davisrf.com/ham1/coax.htm#buryflex

I've got some of that which I purchased new, and did some extensive tests on it with a network analyzer. The loss varies all over the map depending on how you coil, bend, or flex the cable, and I never saw loss anywhere near as low as the spec says. A typical value at 400 MHz was more like 5 - 5.5 dB/100 ft. Glad you're happy with it.

Roy Lewallen, W7EL

4411. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 12:27:18 UTC
From: Charlie <charlie@play.com>
Message-ID: <11plideiarm8cab@news.supernews.com>
Source record: 66808

Sounds like a flawed test setup. Davis bury flex gets rave reviews (except for yours) all over the net and on-the -air.
I have over 450ft of the stuff and it's super. I see no effects from coiling or bending....

Sorry you're having a difficult time...
--

Charlie

"Roy Lewallen" <w7el@eznec.com> wrote in message news:11plec7eqh96s81@corp.supernews.com...
> Charlie wrote:
>> I would recommend you take a look at Davis RF "BuryFlex" 9914. It is
>> very nearly the exact same loss per 100ft (within a couple tenths of a
>> db) as LMR400 and/or 9913. It can be directly buried in the soil with no
>> other provisions needed. It has an abrasion resistant non-contaminating
>> jacket that has a warranted 20 year service life. It is also quite
>> affordable at about $.60/ft. It is very flexible and indeed is fine even
>> as rotator loops. I use it on all bands I run from HF thru 6M and 2M. It
>> uses standard UHF or N connectors as well. Loss per 100ft at 400MHZ is
>> 2.9db
>>
>> Check it out here....
>>
>> 1. http://www.davisrf.com/ham1/coax.htm#buryflex
>
> I've got some of that which I purchased new, and did some extensive tests
> on it with a network analyzer. The loss varies all over the map depending
> on how you coil, bend, or flex the cable, and I never saw loss anywhere
> near as low as the spec says. A typical value at 400 MHz was more like 5 -
> 5.5 dB/100 ft. Glad you're happy with it.
>
> Roy Lewallen, W7EL

4412. Re: G10 fiberglass rod needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 12:50:06 UTC
From: GS <spam@limbo.hell>
Message-ID: <4aAmf.4116$PX2.429369@news20.bellglobal.com>
Source record: 66809

Hi Bob,

I can ge tubing in the size made of PUL500 which is an industrial grade of
Fiberglass, but 20ft must be purchased.

It is expensive. However if you are looking for 1" dia solid that could
arranged as I ourchase it on a regular basis.

73's
Guenther Schweigl
General Manager
Degen Designs
www.degendesigns.com
info@degendesigns.com

"Bob" <none@thistime> wrote in message
news:tMqdncCQzYTpqATeRVn-uw@giganews.com...
>I need about three feet (can be three pieces) of G10 rod about 1 1/2 to 2
>inches in diameter. Any suggestions as to a reasonably priced source?
> Thanks
>

4413. Re: stevie shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 13:43:00 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dneluq$n58$1@news8.svr.pol.co.uk>
Source record: 66810
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

> >[snip] ..... but anyone
> >with any disease could "play" with the food your about to pick up....
> >urgh..... mind you, seeing some of the staff in McDonalds and similar
> >eateries puts me off their cuisine somewhat too. My god, if you knew some
of
> >the things that happens to your food before you get it you'd never eat
> >again....
>
> Why else do you think there are so many diseases caught by patients in
> British hospitals? Perhaps the filthy habits of some of the
> "employees" have a lot to do with it.

Well, most of our hospitals are full of Asian doctors and Philippine nurses
so im afraid I have to agree with you Walt.

Merry Christmas,
Graham

--

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Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4414. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 13:50:50 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnemdf$8dn$1@newsg3.svr.pol.co.uk>
Source record: 66811
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Lloyd" <lloyd@no.spammmmm> wrote in message
news:7017833.8F8789@tarrnews.net...
> On Thu, 8 Dec 2005 22:24:17 -0500, Dr.Ace wrote:
> >
> > "Steveo" <steveo-hed@excite.com> wrote in message
> > news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
> > > http://niggermania.com/
> > >
> >
> > Very Funny
>
> that web sight is hosted on a earthlink server and is in violation of
> their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
> complain about it and get the sight pulled. good pple must be
> vigilant against hate just like k1man always says.

Well, thank you Mary Whitehouse.
Lets hope you also complain about the ethnic sites disrespecting white people. The thing is with niggermania.com although some of the language used is of a racist nature, most of the stories ring true to many of us who have lived in black areas which always seem to turn into ghetto's wherever they are. Racist view or general observation? Ill let the readers decide.

Regards,
Graham

Ps. The site has nothing to do with me nor do I endorse it in any way.

--
_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4415. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 13:59:11 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnemt4ctf1@news7.svr.pol.co.uk>
Source record: 66812
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Lloyd" <lloyd@no.spammmmm> wrote in message
news:870173.2458F9@tarrnews.net...
> On Fri, 09 Dec 2005 19:54:54 +0000, Walt Davidson <g3nyy@despammed.com>
wrote:
> > On 9 Dec 2005 18:52:46 GMT, Lloyd <lloyd@no.spammmmm> wrote:
> >
> > >that web sight is hosted on a earthlink server and is in violation of
> > >their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
> > >complain about it and get the sight pulled. good pple must be
> > >vigilant against hate just like k1man always says.
> >
> > I am very surprised to hear it. I thought such things were perfectly
> > legal in the USA, under the terms of the First Amendment.
> >
> > In countries like the UK, where free speech is not a right, it would
> > indeed be illegal.
> >
>
> this isnt a matter of crimenal law. it is a matter of the provider's
> TOS which is a contract between the web sight and earthlink. I am
> very surprised that you dont know about TOS and how a provider can
> kick you off if you violate his TOS. sheeze.

I knew of a spoof site that a girlfriend I once had made and the only
defamatory thing on it was a single link to the BNP party which is a
legitimate and legal party in the UK and the host deleted her website
immediately for this. No warning or anything it was simply removed. That was
a Yahoo Geocities site. I personally find that a disgusting attitude for
them to take as it took her many weeks of hard work to make her site and
they never even warned her first.
Free speech seems to only apply for the ethnic minorities.

Regards,
Graham

--
_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4416. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 14:19:34 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <2uolp197i17k90u4a231konu6n6kk5j5tg@4ax.com>
Source record: 66813

On Sat, 10 Dec 2005 06:27:18 -0600, "Charlie" <charlie@play.com>
wrote:

>Sounds like a flawed test setup.

Hah hah. Very funny.

If Roy says it's bad--it's bad.

4417. Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 14:31:59 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <y66dnWvN9IaRegfenZ2dnUVZ_tednZ2d@comcast.com>
Source record: 66814
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:1q3lp11g12rg70qfj7qr3jpffcrhdrdkil@4ax.com...
> On Fri, 9 Dec 2005 18:19:18 -0500, "Dee Flint"
> <deeflint01@comcast.net> wrote:
>
>>An ISP is a private entity and does not have to allow it even if it is
>>legal. When you sign up with an ISP, you are entering into a contract and
>>agreeing to its terms and conditions. If the ISP says no hate speech,
>>then
>>they can legally pull the page or sight and even cancel the user's service
>>due to violating the contract.
>
> I think you may find it cannot, if by so doing it breaches the First
> Amendment.
>
> In the UK, a contract is not legally binding if it contains something
> that is illegal. (In the USA, YMMD.)
>
> 73 de G3NYY
>
> P.S. It's a "site", not a "sight".
>
> --
> Walt Davidson Email: g3nyy @despammed.com

Don't get caught up in the "spelling" wars. I noticed that my fingers had typed the wrong one just after I hit the send button.

Free speech has never meant that a person can say whatever they want, wherever they want, whenever they want. There are many laws defining what you can and cannot do. For example, I can stand on a public sidewalk (i.e. publicly owned properties) handing out flyers all I want to so long as I am not doing anything illegal. On the other hand, if I want to hand them out in the shopping center (i.e. privately owned, not paid for by tax dollars), I must have the permission of the shopping center owner/management. The subject of the flyers is irrelevant. Our tax dollars do not pay for the ISP and so as a private entity they can limit usage of their service.

A business can legally prevent its employees from handing out political material (campaign buttons, flyers, etc) on its premises. If they have such a policy (and this has been clearly published to its employees), they can fire an employee for doing so and it does not violate the employee's right to freedom of speech.

To really understand the First Amendment and what freedom of speech really means, one needs to study it in the context of history. It had been a common practice for governments and rulers to throw people in jail simply for criticizing the government or even simply disagreeing with its policies. The First Amendment was crafted to protect people from being jailed for such and to enable and even encourage open discussion and debate on issues. It was not intended to protect libel, slander, fraud, speech encouraging violence, etc. Nor was it intended to force people to listen to someone else's free speech. If someone comes on my lawn and starts making a speech, I can call the police and have him escorted off. Freedom of speech does not allow him to force me to listen or to use my property.

The extent to which freedom of speech applies is endlessly debated and the amendment endlessly interpreted. All that people can really agree on is that it was not intended to allow an "anything goes" type of approach. They cannot agree on what it does cover however.

Dee D. Flint, N8UZE

4418. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 14:33:28 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051210093328.760$Ot@newsreader.com>
Source record: 66815
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd <lloyd@no.spammmmm> wrote:
> On 10 Dec 2005 05:03:03 GMT, Steveo <moparholic@hotmail.com> wrote:
> > Subject: Re: http://niggermania.com/
> > From: Steveo <moparholic@hotmail.com>
> > Date: 10 Dec 2005 05:03:03 GMT
> > Organization: http://newsreader.com/
> > Path: nntp.giganews.com!feed4.newsreader.com!newsreader.com!newsh.newsreader.com!ellis
.newsreader.com!not-for-mail
> > Message-ID: <20051210000303.410$Bv@newsreader.com>
>
> https://newsreader.com/news/newaccount says this about you
>
Tell em Steveo says fuck them, or anyone that looks like them.

> and now you have been warned steve robenson.
>
Get off my leg, fatboi.

4419. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 14:34:55 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051210093455.424$0d@newsreader.com>
Source record: 66816
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Walt Davidson <g3nyy@despammed.com> wrote:
> On 10 Dec 2005 11:45:23 GMT, Lloyd <lloyd@no.spammmmm> wrote:
>
> > ... and we will
> >charge a $10 per message clean-up fee to your credit card.
>
> LOL! How can they enforce that payment if he hasn't authorized it
> with the credit card company?
>
> 73 de G3NYY
>
Tell em Steveo says fuck them, or anyone that looks like them.

4420. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 14:43:35 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <r6qlp1l9asos3l9kov8nl76t3i3stpmh2s@4ax.com>
Source record: 66817
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 09:31:59 -0500, "Dee Flint"
<deeflint01@comcast.net> wrote:

>
>"Walt Davidson" <g3nyy@despammed.com> wrote in message
>news:1q3lp11g12rg70qfj7qr3jpffcrhdrdkil@4ax.com...
>> On Fri, 9 Dec 2005 18:19:18 -0500, "Dee Flint"
>> <deeflint01@comcast.net> wrote:
>>
>>>An ISP is a private entity and does not have to allow it even if it is
>>>legal. When you sign up with an ISP, you are entering into a contract and
>>>agreeing to its terms and conditions. If the ISP says no hate speech,
>>>then
>>>they can legally pull the page or sight and even cancel the user's service
>>>due to violating the contract.
>>
>> I think you may find it cannot, if by so doing it breaches the First
>> Amendment.
>>
>> In the UK, a contract is not legally binding if it contains something
>> that is illegal. (In the USA, YMMD.)
>>
>> 73 de G3NYY
>>
>> P.S. It's a "site", not a "sight".
>>
>> --
>> Walt Davidson Email: g3nyy @despammed.com
>
>
>Don't get caught up in the "spelling" wars. I noticed that my fingers had
>typed the wrong one just after I hit the send button.
>
>Free speech has never meant that a person can say whatever they want,
>wherever they want, whenever they want. There are many laws defining what
>you can and cannot do. For example, I can stand on a public sidewalk (i.e.
>publicly owned properties) handing out flyers all I want to so long as I am
>not doing anything illegal. On the other hand, if I want to hand them out
>in the shopping center (i.e. privately owned, not paid for by tax dollars),
>I must have the permission of the shopping center owner/management. The
>subject of the flyers is irrelevant. Our tax dollars do not pay for the ISP
>and so as a private entity they can limit usage of their service.
>

>A business can legally prevent its employees from handing out political
>material (campaign buttons, flyers, etc) on its premises. If they have such
>a policy (and this has been clearly published to its employees), they can
>fire an employee for doing so and it does not violate the employee's right
>to freedom of speech.

Correct! The First Amendment does not cover *anything* a private
person or a private company does. It applies *only* to actions by the
government.

That obviously eliminates any restrictions an ISP might put into their
usage agreements from "breaching the First Amendment. I'm always
amazed at the number of people who don't understand the Bill of
Rights. Walt must have been asleep in the back of the room when his
teacher talked about the Constitution.

>To really understand the First Amendment and what freedom of speech really
>means, one needs to study it in the context of history. It had been a
>common practice for governments and rulers to throw people in jail simply
>for criticizing the government or even simply disagreeing with its policies.
>The First Amendment was crafted to protect people from being jailed for such
>and to enable and even encourage open discussion and debate on issues. It
>was not intended to protect libel, slander, fraud, speech encouraging
>violence, etc. Nor was it intended to force people to listen to someone
>else's free speech. If someone comes on my lawn and starts making a speech,
>I can call the police and have him escorted off. Freedom of speech does not
>allow him to force me to listen or to use my property.
>
>The extent to which freedom of speech applies is endlessly debated and the
>amendment endlessly interpreted. All that people can really agree on is
>that it was not intended to allow an "anything goes" type of approach. They
>cannot agree on what it does cover however.
>
>Dee D. Flint, N8UZE
>

--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4421. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 14:46:14 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051210094614.715$fl@newsreader.com>
Source record: 66818
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd <lloyd@no.spammmmm> wrote:
> On 10 Dec 2005 05:03:03 GMT, Steveo <moparholic@hotmail.com> wrote:
> > Subject: Re: http://niggermania.com/
> > From: Steveo <moparholic@hotmail.com>
> > Date: 10 Dec 2005 05:03:03 GMT
> > Organization: http://newsreader.com/
> > Path: nntp.giganews.com!feed4.newsreader.com!newsreader.com!newsh.newsreader.com!ellis
.newsreader.com!not-for-mail
> > Message-ID: <20051210000303.410$Bv@newsreader.com>
>
> https://newsreader.com/news/newaccount says this about you
>
> 7. We reserve the right to disable your ability to create (post or
> mail) Usenet or e-mail messages with this service. We will do this if
> we believe your messages are considered to be abusive by the current
> standards of the Usenet and Internet community, or disruptive to the
> functioning of Usenet, the Internet, or this service. DO NOT post any
> form of SPAM or ADVERTISING - we will not allow this. If you post any
> articles which are seen by the usenet community as SPAM or unwanted
> ADVERTISING, we will disable your posting ability and and we will
> charge a $10 per message clean-up fee to your credit card.
>
> 8. We reserve the right to refuse service to anyone if we feel their
> use of the service is (or will be) disruptive to the functioning of
> Usenet, the Internet, or this service.
>
> and now you have been warned steve robenson.
>
Hey fucknut, does Chris Caputo approve of your altering your header to
read
http://www.TarrNews.net - FREE NNTP Access

instead of altopia? Doesn't altopia's service blow goats?

Eat a salad today, lardass.

4422. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 14:55:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <C%Bmf.39265$6e1.6293@newssvr14.news.prodigy.com>
Source record: 66819
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Dee Flint wrote:
> "Walt Davidson" <g3nyy@despammed.com> wrote in message
>>P.S. It's a "site", not a "sight".
>
> Don't get caught up in the "spelling" wars.

I dunno, that web site looks like a sight to me. :-)
From Webster's: "sight - beyond all expectations or reason"
--
73, Cecil http://www.qsl.net/w5dxp

4423. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:03:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <b7Cmf.39266$6e1.32322@newssvr14.news.prodigy.com>
Source record: 66820
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

nevermore wrote:
> Walt must have been asleep in the back of the room when his
> teacher talked about the Constitution.

Why would g3nyy's teacher have talked about The Constitution,
written by a bunch of previous rebel Enemies of the Crown?
--
73, Cecil http://www.qsl.net/w5dxp

4424. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:06:58 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <r6qlp1hpj77jogetfm56qkmj8q9agkjfj5@4ax.com>
Source record: 66821

On Tue, 06 Dec 2005 23:28:15 GMT, Owen Duffy <owen@no.where> wrote:

>On Tue, 06 Dec 2005 23:14:22 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>A couple of days ago, my power failed right in the middle of a
>>football game. I just happen to have a 12v deep discharge battery
>>and a 12v B&W TV. I plugged it in, extended the two-foot telescoping
>>antenna and, wonders of wonders, I was receiving a very good vhf
>>TV signal from about 40 miles away. The game went on and after
>>awhile the power came back on. That good TV picture simultaneously
>>disappeared along with the sound. There may be a lesson there somewhere.
>
>I don't think you were telling us that the battery went flat at that
>moment, so...
>
>Don't you have digital television? Best thing since sliced bread.
>
>I don't know if you can receive analog television beyond the digital
>coverage ranges, but you probably wouldn't want to watch it.
>
>Digital TV makes weak signals most watchable, DVD quality at weak
>signals.
>
>I use it and I am only 4km from the transmitter, but that is another
>situation where it works a treat, ghost free pictures close to the
>tranmitter in the presence of local reflections (hills, water towers
>etc).

I suppose you have the Coded Orthogonal Frequency Division
Multiplexing (COFDM) standard there.

(Editorial mode on)

Our idiot government is forcing 8-VSB (8-level vestigial sideband) on
us and multipath will be the death of my off-the-air TV watching.

Furthermore, my wife and rarely watch anything live (except for local
news), but use two DVRs for time shifting and commercial elimination.
So with my system, if I can get a picture at all, I would need three
STBs (set top boxes) that are programmable or a couple of new digital
recorders and a new TV set. (If I was poor enough, my idiot
government would buy this stuff for me, but instead, I believe I will
be taxed to buy it for someone else.)

And then they are changing the aspect ratio so my 35" screen is
obsolete and any replacement would have a smaller screen if I want to

keep it in my $7,000 piece of furniture.

One of my U.S. Senators (McCain) is actually leading this effort, "In the interest of public safety" because he says the analog TV frequency spectrum will be used for emergency communications. Ha ha. The government wants to auction this spectrum off to the highest bidder(s) and it won't be the local police department.

Another example of what you get when you have politicans making technical decisions.

(Editorial mode off)

4425. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:12:25 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <jN2dnUzzCfMEbQfenZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 66822
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"nevermore" <stevencanyon@y***hoo.com> wrote in message
news:r6qlp1l9asos3l9kov8nl76t3i3stpmh2s@4ax.com...
> On Sat, 10 Dec 2005 09:31:59 -0500, "Dee Flint"
> <deeflint01@comcast.net> wrote:
>
>>
>>"Walt Davidson" <g3nyy@despammed.com> wrote in message
>>news:1q3lp11g12rg70qfj7qr3jpffcrhdrdkil@4ax.com...
>>> On Fri, 9 Dec 2005 18:19:18 -0500, "Dee Flint"
>>> <deeflint01@comcast.net> wrote:
>>>

[snip]

> That obviously eliminates any restrictions an ISP might put into their
> usage agreements from "breaching the First Amendment. I'm always
> amazed at the number of people who don't understand the Bill of
> Rights. Walt must have been asleep in the back of the room when his
> teacher talked about the Constitution.
>

Walt's in the UK. I seriously doubt if they teach the US Constitution
there. They may do a brief outline just as we get a brief summary of
Britain's form of government but it's unlikely they would go into any depth
on it.

Dee D. Flint, N8UZE

4426. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:23:44 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051210102344.404$8M@newsreader.com>
Source record: 66823
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd <lloyd@no.spammmmm> wrote:
> On 10 Dec 2005 14:46:14 GMT, Steveo <moparholic@hotmail.com> wrote:
> >
> > Hey fucknut, does Chris Caputo approve of your altering your header to
> > read
> > http://www.TarrNews.net - FREE NNTP Access
>
> why dont you read his TOS and find out steve robenson?
>
http://groups.google.com/groups?q=akula <--- his? lol
>
k1man would
> never have to ask a dumb question like that because k1man is a great
> man.
>
Wipe the man gravy off your chin, lardass.

4427. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:26:38 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <cnslp1d8nqv7rdu6cvreq5u591n6mpd6t3@4ax.com>
Source record: 66824
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 15:03:35 GMT, Cecil Moore <mycall@arrl.net> wrote:

>nevermore wrote:
>> Walt must have been asleep in the back of the room when his
>> teacher talked about the Constitution.
>
>Why would g3nyy's teacher have talked about The Constitution,
>written by a bunch of previous rebel Enemies of the Crown?

Anyone talks about US Constitutional free speech without knowing
that the First Amendment is *only* a guarantee against abridgement by
the government itself, is a moron.
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4428. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:26:39 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <hrslp152jqlcnp1v50nnkaj3rdhlcip1gh@4ax.com>
Source record: 66726
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 10:12:25 -0500, "Dee Flint"
<deeflint01@comcast.net> wrote:

>
>"nevermore" <stevencanyon@y***hoo.com> wrote in message
>news:r6qlp1l9asos3l9kov8nl76t3i3stpmh2s@4ax.com...
>> On Sat, 10 Dec 2005 09:31:59 -0500, "Dee Flint"
>> <deeflint01@comcast.net> wrote:
>>
>>>
>>>"Walt Davidson" <g3nyy@despammed.com> wrote in message
>>>news:1q3lp11g12rg70qfj7qr3jpffcrhdrdkil@4ax.com...
>>>> On Fri, 9 Dec 2005 18:19:18 -0500, "Dee Flint"
>>>> <deeflint01@comcast.net> wrote:
>>>>
>
>[snip]
>
>> That obviously eliminates any restrictions an ISP might put into their
>> usage agreements from "breaching the First Amendment. I'm always
>> amazed at the number of people who don't understand the Bill of
>> Rights. Walt must have been asleep in the back of the room when his
>> teacher talked about the Constitution.
>>
>
>Walt's in the UK. I seriously doubt if they teach the US Constitution
>there. They may do a brief outline just as we get a brief summary of
>Britain's form of government but it's unlikely they would go into any depth
>on it.

Then the moron should try to keep his mouth shut about things that he
doesn't understand.

>Dee D. Flint, N8UZE
>

--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is

clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4429. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:28:59 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnes5i$ro9$1@news8.svr.pol.co.uk>
Source record: 66825
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Cecil Moore" <mycall@arrl.net> wrote in message
news:b7Cmf.39266$6e1.32322@newssvr14.news.prodigy.com...
> nevermore wrote:
> > Walt must have been asleep in the back of the room when his
> > teacher talked about the Constitution.
>
> Why would g3nyy's teacher have talked about The Constitution,
> written by a bunch of previous rebel Enemies of the Crown?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Its always good to broaden your horizons and have a basic understanding of history. Wish id have paid more attention now ;o)

Regards,
Graham
--
_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4430. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:35:09 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <NACmf.258890$zb5.35096@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66727

Hi Roy,

A couple of comments on your excellent input into this discussion.

Roy Lewallen wrote:
>
> I found another source (Ramo et al) which directly gives the ratio of
> power in the load of a matched receiving antenna to the power applied to
> a transmitting antenna, in terms of the effective apertures of the
> antennas. This doesn't require the intermediate step of calculating
> field strength. The equation is:
>
> Wr/Wt = (Aer * Aet) / (lambda^2 * r^2)
>
> where:
> Wr, Wt are received and transmitted power respectively
> Aer, Aet are the receiving and transmitting antenna effective apertures
> lambda = wavelength
> r = distance between the antennas

Kraus "Antennas" also describes this equation. He refers to it as the
"Friis transmission formula" on pages 48 and 49 of the second edition.

>
> One final note, regarding the NEC applied plane wave. My earlier
> statement that the resulting field is twice the plane wave source
> magnitude when a ground plane is present is true only when the plane
> wave is applied over perfect ground at exactly grazing incidence (zenith
> angle = 90 deg.). If applied from other angles the resulting field
> strength will be different. If you apply a vertically polarized wave
> over a ground plane, I believe the resulting field strength will look
> like the pattern from a vertical radiator over a perfect ground plane --
> strongest when applied at the horizon, decreasing when applied at higher
> angles, and dropping to zero if applied from directly overhead. I
> haven't confirmed this, but believe it's necessary in order to get a
> receiving pattern that's the same as the transmitting pattern. So use it
> with caution when a ground plane is present, and don't casually make
> assumptions about the resulting field.

I believe a better way to describe this situation is that the plane wave
field strength does not go to zero, but rather the effective aperture of
the antenna goes to zero as the plane wave is applied from overhead.
This does not change your conclusion with respect to antenna patterns.

The oblique-incidence plane wave equations are slightly messy, but they
are well described in treatments of waveguides.

73,
Gene
W4SZ

4431. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 15:48:43 UTC
From: Martin Holterman <martin.holterman@wxs.nl>
Message-ID: <439af8dc$0$2336$ba620dc5@text.nova.planet.nl>
Source record: 66728
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

nevermore wrote:
> On Sat, 10 Dec 2005 15:03:35 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>
>>nevermore wrote:
>>
>>>Walt must have been asleep in the back of the room when his
>>>teacher talked about the Constitution.
>>
>>Why would g3nyy's teacher have talked about The Constitution,
>>written by a bunch of previous rebel Enemies of the Crown?
>
>
>
> *Anyone* talks about US Constitutional free speech without knowing
> that the First Amendment is *only* a guarantee against abridgement by
> the government itself, is a moron.

Horizontal effect of constitutionally guaranteed rights is an element of many countries' legal systems. When I studied a bit of law in Ireland, I learned about constitutional torts. The idea is that, take free speach, if torts law does not protect my right to free speach when it should, than this is a shortcoming on the part of the state, i.e. the court and the legislature. To rectify this, the plaintiff, when suing another private person in tort, can base his case on his constitutional right. In tort, there are about a dozen or so precedents where this reasoning was upheld.
In my own country, the Netherlands, the constitutionally protected rights do not have horizontal effect directly, but they are used for the interpretation of open norms in civil law, such as the public order exception to free contracting and the due care requirement in tort law.

I hope you learned something,

Martin Holterman

4432. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 16:25:42 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <u30mp1tgnd99mvao9ain2g3e3b7ukeapk6@4ax.com>
Source record: 66729
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 16:48:43 +0100, Martin Holterman
<martin.holterman@wxs.nl> wrote:

>nevermore wrote:
>> On Sat, 10 Dec 2005 15:03:35 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>
>>
>>>nevermore wrote:
>>>
>>>>Walt must have been asleep in the back of the room when his
>>>>teacher talked about the Constitution.
>>>
>>>Why would g3nyy's teacher have talked about The Constitution,
>>>written by a bunch of previous rebel Enemies of the Crown?
>>
>>
>>
>> *Anyone* talks about US Constitutional free speech without knowing
>> that the First Amendment is *only* a guarantee against abridgement by
>> the government itself, is a moron.
>
>Horizontal effect of constitutionally guaranteed rights is an element of
>many countries' legal systems. When I studied a bit of law in Ireland, I
>learned about constitutional torts. The idea is that, take free speach,
>if torts law does not protect my right to free speach when it should,
>than this is a shortcoming on the part of the state, i.e. the court and
>the legislature. To rectify this, the plaintiff, when suing another
>private person in tort, can base his case on his constitutional right.
>In tort, there are about a dozen or so precedents where this reasoning
>was upheld.
>In my own country, the Netherlands, the constitutionally protected
>rights do not have horizontal effect directly, but they are used for the
>interpretation of open norms in civil law, such as the public order
>exception to free contracting and the due care requirement in tort law.
>
>I hope you learned something,

I don't give a shit how it works in the Netherlands.. It sure doesn't
work that way in the USA.

>Martin Holterman

--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4433. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 16:35:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ItDmf.29483$7h7.8245@newssvr21.news.prodigy.com>
Source record: 66730
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

nevermore wrote:
> I don't give a shit how it works in the Netherlands.. It sure doesn't
> work that way in the USA.

Lots of things don't work anymore in the USA. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4434. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 16:50:51 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <4q1mp1do77ktaou8clusqgfd3lj2ldmgcd@4ax.com>
Source record: 66731
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 16:35:52 GMT, Cecil Moore <mycall@arrl.net> wrote:

>nevermore wrote:
>> I don't give a shit how it works in the Netherlands.. It sure doesn't
>> work that way in the USA.
>
>Lots of things don't work anymore in the USA. :-)

Yeah, unfortunately we still have lots of welfare leeches, but
fortunately, OTOH, there's more than enough "stuff" working good in
the USA to make the losers of the world hate and fear us....
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4435. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 16:54:22 UTC
From: Martin Holterman <martin.holterman@wxs.nl>
Message-ID: <439b083e$0$2338$ba620dc5@text.nova.planet.nl>
Source record: 66732
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

```
nevermore wrote:
> On Sat, 10 Dec 2005 16:48:43 +0100, Martin Holterman
> <martin.holterman@wxs.nl> wrote:
>
>
>>nevermore wrote:
>>
>>>On Sat, 10 Dec 2005 15:03:35 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>>
>>>
>>>
>>>>nevermore wrote:
>>>>
>>>>
>>>>>Walt must have been asleep in the back of the room when his
>>>>>teacher talked about the Constitution.
>>>>
>>>>Why would g3nyy's teacher have talked about The Constitution,
>>>>written by a bunch of previous rebel Enemies of the Crown?
>>>
>>>
>>>
>>>*Anyone* talks about US Constitutional free speech without knowing
>>>that the First Amendment is *only* a guarantee against abridgement by
>>>the government itself, is a moron.
>>
>>Horizontal effect of constitutionally guaranteed rights is an element of
>>many countries' legal systems. When I studied a bit of law in Ireland, I
>>learned about constitutional torts. The idea is that, take free speach,
>>if torts law does not protect my right to free speach when it should,
>>than this is a shortcoming on the part of the state, i.e. the court and
>>the legislature. To rectify this, the plaintiff, when suing another
>>private person in tort, can base his case on his constitutional right.
>>In tort, there are about a dozen or so precedents where this reasoning
>>was upheld.
>>In my own country, the Netherlands, the constitutionally protected
>>rights do not have horizontal effect directly, but they are used for the
>>interpretation of open norms in civil law, such as the public order
>>exception to free contracting and the due care requirement in tort law.
>>
>>I hope you learned something,
>
>
```

> I don't give a shit how it works in the Netherlands.. It sure doesn't
> work that way in the USA.
>
>

I know, but I have to say that attitude is not very helpful. It's gotten
Americans in trouble before.

Martin Holterman

4436. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 17:26:11 UTC
From: Mexicana Aeronáutica y Spacia Administraci ón <webmaestro@masa.gob.mx>
Message-ID: <TcEmf.38314$D13.3104@newssvr11.news.prodigy.com>
Source record: 66733
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd wrote...
> On Thu, 8 Dec 2005 22:24:17 -0500, Dr.Ace wrote:
>
>>"Steveo" <steveo-hed@excite.com> wrote in message
>>news:1133938429.122733.52720@g43g2000cwa.googlegroups.com...
>>
>>>>http://niggermania.com/
>>>>
>>
>>Very Funny
>
>
> that web sight is hosted on a earthlink server and is in violation of
> their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
> complain about it and get the sight pulled. good pple must be
> vigilant against hate just like k1man always says.

Hmm, I like it so I think I'll download everything before it goes offline
and repost it on some server in Russia.

4437. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 17:32:10 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <uiEmf.30128$dO2.9589@newssvr29.news.prodigy.net>
Source record: 66734
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

nevermore wrote:
> On Sat, 10 Dec 2005 16:35:52 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>
>>nevermore wrote:
>>
>>>I don't give a shit how it works in the Netherlands.. It sure doesn't
>>>work that way in the USA.
>>
>>Lots of things don't work anymore in the USA. :-)
>
>
>
> Yeah, unfortunately we still have lots of welfare leeches, but
> fortunately, OTOH, there's more than enough "stuff" working good in
> the USA to make the losers of the world hate and fear us....
> --
>
> If Nevermore tries paying cap gains with a 1040, he'll
> be in jail soon enough.
> --Zepp Jamieson, Dec 3, 2005
> http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&
>
> Jamieson, obviously never had any cap gains to report, because
> <LOL> line 13 on the 1040 form, under income, as shown below, is
> clearly where you report your capital gains.
>
> http://www.irs.gov/pub/irs-pdf/f1040.pdf
>

Some of those "losers" are doing pretty well for themselves.
China's economy should surpass that of the U.S. in the near
future, for example. As for hating us, why would anyone hate
a cash cow?
73,
Tom Donaly, KA6RUH

4438. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 17:59:27 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pm5s6ns25it86@news.supernews.com>
Source record: 66735

I don't know what you two have going but his "analysis" flies in the face of every other review and/or comment I have ever read about Davis 9914. As well as my own experience of low loss and great performance. I have several bends in my runs of 9914 and no adverse swr.

Have you looked at all the positive user's reviews at eHam about it? Not a single negative remark..
1. http://www.eham.net/reviews/detail/4515

One might also want to check this link for another endorsement of Davis BuryFlex 9914
2.
http://lists.contesting.com/archives//html/Towertalk/1999-08/msg00010.html

The again one could just read what is posted at this link at the eHam Elmer's Forum - all very positive
3. http://www.eham.net/forums/Elmers/38717

I'm not saying Roy is misstating what he saw. I'm saying what he saw misstates the real quality of this coax.
1. Maybe he got a bad piece
2. Maybe he had a loose connector
3. Maybe he didn't calibrate the network analyzer
4. etc etc etc....NO ONE else I can find dislikes this 9914!!!

--

Charlie

"Wes Stewart" <n7ws*@*yahoo.com> wrote in message
news:2uolp197i17k90u4a231konu6n6kk5j5tg@4ax.com...
> On Sat, 10 Dec 2005 06:27:18 -0600, "Charlie" <charlie@play.com>
> wrote:
>
>>Sounds like a flawed test setup.
>
> Hah hah. Very funny.
>
> If Roy says it's bad--it's bad.

4439. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 18:10:40 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <ASEmf.1990$pE4.387@tornado.socal.rr.com>
Source record: 66736

Wes Stewart wrote:
> On Sat, 10 Dec 2005 06:27:18 -0600, "Charlie" <charlie@play.com>
> wrote:
>
>
>>Sounds like a flawed test setup.
>
>
> Hah hah. Very funny.
>
> If Roy says it's bad--it's bad.

Agreed!

4440. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 18:25:11 UTC
From: Mexicana Aeronáutica y Spacia Administraci ón <webmaestro@masa.gob.mx>
Message-ID: <b4Fmf.38327$D13.1641@newssvr11.news.prodigy.com>
Source record: 66737
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Walt Davidson wrote...
> On Sat, 10 Dec 2005 17:26:11 GMT, Mexicana Aeroni¿½utica y Spacia
> Administraciï¿½n <webmaestro@masa.gob.mx> wrote:
>
>
>>Hmm, I like it so I think I'll download everything before it goes offline
>>and repost it on some server in Russia.
>
>
> I wouldn't be surprised if it was illegal in the UK to even LOOK at
> the site! It's against the law here to possess racially inflammatory
> material. If it's in the browser cache on your PC, you possess it ...
> right?

Except that I'm in the USA so I have nothing to worry about.

The UK is pathetic. Though I'm descended from Brits, I realize why my
country declared independence. America may have its problems, but I
expect that British culture will be extinct within a century, having
first been turned into an joyless Orwellian police state before finally
collapsing into anarchy.

"He did not know how long she had been looking at him, but perhaps for
as much as five minutes, and it was possible that his features had not
been perfectly under control. It was terribly dangerous to let your
thoughts wander when you were in any public place or within range of a
telescreen. The smallest thing could give you away. A nervous tic, an
unconscious look of anxiety, a habit of muttering to yourself - anything
that carried with it the suggestion of abnormality, of having something
to hide. In any case, to wear an improper expression on your face (to
look incredulous when a victory was announced, for example) was itself a
punishable offense. There was even a word for it in Newspeak:
'facecrime,' it was called."
-- 1984

4441. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 18:28:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sg6mp1158s5e40ej1au5d4a78ma7p5tdhp@4ax.com>
Source record: 66738

On Sat, 10 Dec 2005 11:59:27 -0600, "Charlie" <charlie@play.com>
wrote:

>Have you looked at all the positive user's reviews at eHam about it?

User reviews are testimonial, not skilled measurement.

>One might also want to check this link for another endorsement of Davis

Endorsements are just that, again, not skilled measurement.

>The again one could just read what is posted at this link at the eHam
>Elmer's Forum - all very positive

Being positive and being correct are not the same thing.

>I'm saying what he saw

Roy and anyone else is perfectly capable of speaking for him(them)self
and telling us what he (they) saw. Interpretation is prone to
transcription error, a frequent element of testimonial and
endorsement.

>1. Maybe he
>2. Maybe he
>3. Maybe he

There are no maybes. Within this group there are experts in every
sense of the word that are credentialed and experienced. Among this
group are several Metrologists who do or have done these kind of
things (determine loss) for a living.

>4. etc etc etc....NO ONE else I can find dislikes this 9914!!!

Roy is not offering an expression of personal taste, he is merely
stating that products often suffer claim inflation, which we can
observe to be inflated further by uninformed testimony. He offered
one very specific counter-claim in a region of RF that is especially
prone to error from the horde of eham testifiers. Their possession of
exotic tools does not confer upon them the ability to correctly
determine power (and by that extension loss).

If you want to challenge a technical statement, you have to go to the
statement and examine it by parts. Ask for data. Ask for the
references (and I don't mean chapter citations). Look at the
computations. Rebutting with testimonials is useless as they only
serve vanity.

73's
Richard Clark, KB7QHC

4442. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 18:57:01 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnf8bn$5nu$1@newsg1.svr.pol.co.uk>
Source record: 66739
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

> Except that I'm in the USA so I have nothing to worry about.

Id say you had quite a lot to worry about. Maybe not in respect of the content of your website (if it is yours of course) unless some of these black people get ahold of you of course, but everything else, gun crime, immigration, corruption... its all there in much larger amounts than in the UK.

> The UK is pathetic. Though I'm descended from Brits, I realize why my
> country declared independence.

Your Country is becoming a cess-pit of multi culteral misfit lowlifes. Declairing independance from the UK can only benefit the UK so I wouldnt get too excited about that. The website shows that only too well.

America may have its problems, but I
> expect that British culture will be extinct within a century, having
> first been turned into an joyless Orwellian police state before finally
> collapsing into anarchy.

Anarchy you say? Like the NO saga and the ghettos in nearly every City in your Country you seem to forget about. The UK is a reasonably tolerant Country as far as Immigration and integration goes but the USA.... I honestly believe the UK is in a much stronger position in holding onto its identity than the US.
That said my sympaties go out to the genuine American people having to put up with this.

> --
> "He did not know how long she had been looking at him, but perhaps for
> as much as five minutes, and it was possible that his features had not
> been perfectly under control. It was terribly dangerous to let your
> thoughts wander when you were in any public place or within range of a
> telescreen. The smallest thing could give you away. A nervous tic, an
> unconscious look of anxiety, a habit of muttering to yourself - anything
> that carried with it the suggestion of abnormality, of having something
> to hide. In any case, to wear an improper expression on your face (to
> look incredulous when a victory was announced, for example) was itself a
> punishable offense. There was even a word for it in Newspeak:
> 'facecrime,' it was called."
> -- 1984
> --

A George Orwell fan.... that explains the previous barmy statement. So many people seem to be convinced they are being filmed and watched by some

organisation to bring them down or fit them up with some crime. As if anyone in reality gives two hoots about them or anything they do.... too full of their own importance which is realistically rated at 0 to such organisations if, infact, they actually exist. George Orwell.. hah...

Regards,
Graham

--

_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4443. Re: G10 fiberglass rod needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 19:03:34 UTC
From: Bob <none@thistime>
Message-ID: <vtmdnflyWNwWuwbenZ2dnUVZ_sWdnZ2d@giganews.com>
Source record: 66740

Thank you for your kind offer, I am not in a big hurry, so I will wait until
I can find some short pieces.
"GS" <spam@limbo.hell> wrote in message
news:4aAmf.4116$PX2.429369@news20.bellglobal.com...
> Hi Bob,
>
> I can ge tubing in the size made of PUL500 which is an industrial grade of
> Fiberglass, but 20ft must be purchased.
>
> It is expensive. However if you are looking for 1" dia solid that could
> arranged as I ourchase it on a regular basis.
>
> 73's
> Guenther Schweigl
> General Manager
> Degen Designs
> www.degendesigns.com
> info@degendesigns.com
>
> "Bob" <none@thistime> wrote in message
> news:tMqdncCQzYTpqATeRVn-uw@giganews.com...
>>I need about three feet (can be three pieces) of G10 rod about 1 1/2 to 2
>>inches in diameter. Any suggestions as to a reasonably priced source?
>> Thanks
>>
>
>

4444. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 19:34:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <q5Gmf.30173$dO2.16371@newssvr29.news.prodigy.net>
Source record: 66741
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Walt Davidson wrote:
> I wouldn't be surprised if it was illegal in the UK to even LOOK at
> the site!
>
> 73 de Wlat

It's probably also illegal there to sign your posting with an alias. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4445. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 19:50:10 UTC
From: dee-flint-ham-ho@hotmail.com
Message-ID: <1134244210.864062.262830@g49g2000cwa.googlegroups.com>
Source record: 66742
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Dee Flint N8UZEy,Nasty,Pussy wrote:

<who gives a shit>

Go spew your crap to your husband and STFU here, you greasy fat cunt!

4446. Re: stevie shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 19:52:00 UTC
From: dee-flint-ham-ho@hotmail.com
Message-ID: <1134244320.025456.246540@z14g2000cwz.googlegroups.com>
Source record: 66743
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

an_old_friend wrote:
> thread pruning

Why don't you go prune the hairs on your momma's pussy!!!!

4447. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 19:54:51 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnfbo6$o9v$1@newsg3.svr.pol.co.uk>
Source record: 66744
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Cecil Moore" <mycall@arrl.net> wrote in message
news:q5Gmf.30173$dO2.16371@newssvr29.news.prodigy.net...
> Walt Davidson wrote:
> > I wouldn't be surprised if it was illegal in the UK to even LOOK at
> > the site!
> >
> > 73 de Wlat
>
> It's probably also illegal there to sign your posting with an alias. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

It depends whether you are attempting to gain by deception I would say on
that account. Pop stars always use alias's, like Harry Webb. Come to think
of it, Shirley Crabtree too as his known name was Big Daddy. So many people
in different walks of life go by different names these days.

Its definitely a crime to spell Walt as Wlat though ;o)

Regards,
Graham
--
_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4448. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 19:55:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnfbsa$o82$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66745
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

```
USA citizens understand themselves very well.
The trouble is they don't understand anybody else.
----
```

4449. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 20:54:34 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <S9GdnZy1Sc1c3QbeRVn-rw@comcast.com>
Source record: 66746
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:f47mp1919tdo0t89d359vjdvv8af45b10r@4ax.com...
> On Sat, 10 Dec 2005 10:26:39 -0500, nevermore
> <stevencanyon@y***hoo.com> wrote:
>
>>Then the moron should try to keep his mouth shut about things that he
>>doesn't understand.
>>
>>>Dee D. Flint, N8UZE
>
> Thank you for confirming and vindicating the opinion that most people
> in the civilized countries of the world hold about Americans these
> days.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

It would have been better to also trim my name out as the unsophisticated
user might think that I wrote this.

Dee D. Flint, N8UZE

4450. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 21:07:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <msHmf.39337$6e1.4826@newssvr14.news.prodigy.com>
Source record: 66747
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Reg Edwards wrote:
> USA citizens understand themselves very well.

I don't understand Howard Dean, DNC chairman.
--
73, Cecil http://www.qsl.net/w5dxp

4451. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 21:37:55 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <DSHmf.71712$Y82.52597@bignews4.bellsouth.net>
Source record: 66748

The biggest problem needs to be solved - the fact that the shack is too far from the antenna.
Move the darn shack and be done with it!

4452. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 21:50:15 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <q2imp19ss5l52trakricta024k6un3299d@4ax.com>
Source record: 66749

On Sat, 10 Dec 2005 18:40:43 +1300, "Ross Biggar" <rbiggar@xtra.co.nz>
wrote:

>I am putting up a second tower , but it will be about 200feet from the shack
>and about 70feet high.
>What coax is recommended to reduce loss to a minimum,and to feed a multiband
>beam with a 2kw amplifier.
>Hard line excepted due to cost.

Ross,

Interesting to see use of such a long line. We have been reliably
informed that nobody uses more than 75' or so!

Starting with the question "what is wrong with commonly available
RG213", you would expect a loss around 2.4dB in a 100m run (200' + 70'
+ 30' tails) with an average VSWR of 1.5.

Given that the lowest ambient noise level on 20m is around 20dB above
typical receiver noise floor, the impact of 2.4dB of loss on receive
is insignificant.

On transmit, you will lose about 45% of your power in the line, so
with your 2KW (output?) amplifier, you will still have 1100W arriving
at the antenna. Will that do the job OK?

Is ladder line the panacea? Wireman 554 directly connected to a 50 ohm
load would have a loss of ~1.7dB and a little extra for baluns brings
you close to 2dB, so it is not a whole lot better than RG213. However,
if you used a 9:1 balun at each end, you would expect line loss of
~0.6dB and a little extra for baluns brings you close to 0.8dB. Now
that seems respectable. Problem is that you live in the land of the
long white cloud, and ladder line performance is degraded
significantly when wet, so it might not be acceptable in your
situation when wet.

Lets look at home made open wire line using 2mm copper spaced 150mm
for a 600 ohms line. If you used the same 9:1 balun at each end, you
would expect line loss of ~0.2dB and a little extra for baluns brings
you close to 0.4dB. Now that seems quite good. Anecdotally, such an
air spaced line is not affected significantly by weather / water, but
that will depend on the quality of the insulators and your rigging
methods.

Remember that the open wire solutions above need to be tuned feeders
or you will need an ATU. I suggest that you will need the ATU for
multi band operation, so you should allow another tenth of a dB or so

for ATU loss.

Someone will probably suggest that LDF6-50 (32mm (1.25") hardline) could achieve 0.3dB loss, but could you afford it, would it be good value?

Owen
--

4453. Re: LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts peoples names on moving contracts without THEIR Knowledge. (925) 876-7441 Lwest@chipmancorp.com 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:21:19 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <39ac8$439b54e0$97d56a33$3105@ALLTEL.NET>
Source record: 66750
Cross-posted to: yu.oglasi,alt.internet.wireless,alt.cellular.cingular,rec.radio.amateur.antenna,alt.fifty-plus.friends

When one feels they are wronged, the courts are the solution. We in the newsgroups neither give a flip nor are of any help to you..

I personally find it humorous she took your liberal, George Bush, Dick Chaney hating ass to the cleaners.

The world does not revolve around you or your problems. Get over it!

<verynicemaria@hotmail.com> wrote in message news:1134143656.595951.180390@g49g2000cwa.googlegroups.com...
>
> jermainsanchezrangel@hotmail.com wrote:
> > LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts
> > peoples names on moving contracts without THEIR Knowledge. (925)
> > 876-7441 Lwest@chipmancorp.com 925-825-5000
> > of CHIPMAN UNITED VAN LINES Caton Mayflower she likes to put peoples
> > names on moving
> > contracts with out there Knowledge or she likes to do Fraud & Forgery
> > Concord,ca or Caton Mayflower Moving & Storage Movers & Relocation
> > Service Dublin,ca (925) 876-7441, 925-887-5515,
> > 925-825-5000, 800-825-3866,800-447-9771, 925-609-1800,
> > 800-447-1771, 925-935-4073, 925-828-3985
> > walnut creek,ca alamo,ca danville,ca san ramon,ca dublin,ca
> > pleasanton,ca
>
> this has been mailed in a xmas card to all on linda's street.
>
> ROY & ROBERTA
> MICHAEL & NANALEE
> LARRY & WENDY
> JOSEPH & MARGARET
> BONNIE
> CLINTON & SHARON
> KEVIN & CANDIS
> BRIAN & PAOLA
> KENNETH & JOAN
>

4454. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:22:25 UTC
From: moparholic at hotmail dot com is a sissy <keyklownzrnutjobs@yahoo.com>
Message-ID: <1134253345.651721.5060@o13g2000cwo.googlegroups.com>
Source record: 66751
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

especially if they are men, because mopedopuke is a wrist flipper

4455. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:23:28 UTC
From: moparholic at hotmail dot com is a sissy <keyklownzrnutjobs@yahoo.com>
Message-ID: <1134253408.196773.277250@g43g2000cwa.googlegroups.com>
Source record: 66752
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

if aatopia's service blows goats it is because you taught it to

4456. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:28:44 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <wEImf.30207$dO2.18090@newssvr29.news.prodigy.net>
Source record: 66753

I had a bad experience with Belden 9913 and if Davis 9914 has the same mechanical properties, be careful. I taped some 9913 to a mast and sometime later discovered it had been squished flat from the tight wrap of electrical tape. I have also seen people ty-rap 9913 and destroy its shape. If Davis 9914 has the center conductor suspended by a thin spiral thing like 9913, I would not be surprised with varying performance when bending it. Here is some coax that looks like better performance than 9913 or Davis 9914 (2.7dB/450MHz/100ft) has the same Polyethylene outer jacket as Davis and is cheaper. Check
http://yanta.pair.com/jefatech/specsheets/LL400Specs.pdf
Mike

Charlie wrote:
> I would recommend you take a look at Davis RF "BuryFlex" 9914. It is very
> nearly the exact same loss per 100ft (within a couple tenths of a db) as
> LMR400 and/or 9913. It can be directly buried in the soil with no other
> provisions needed. It has an abrasion resistant non-contaminating jacket
> that has a warranted 20 year service life. It is also quite affordable at
> about $.60/ft. It is very flexible and indeed is fine even as rotator
> loops. I use it on all bands I run from HF thru 6M and 2M. It uses standard
> UHF or N connectors as well. Loss per 100ft at 400MHZ is 2.9db
>
> Check it out here....
>
> 1. http://www.davisrf.com/ham1/coax.htm#buryflex
>

4457. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:29:03 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <880fb$439b56b0$97d56a33$3403@ALLTEL.NET>
Source record: 66754

Your typical leftwing bullcrap, free speach only applies to what they have
to say and those that agree with them.

They have yet to learn free speech is not something decided by a group of
politically correct idiots.

Thes same folks have apoplexy if some one says nigger or faggot, while
protesting with sentances laced with the F word and other four letter
invectives we find reprehensable. What is their response? "Free

"void * clvrmnky()" <clvrmnky-uunet@coldmail.com.invalid> wrote in message
news:Qummf.4780$43.2672@nnrp.ca.mci.com!nnrp1.uunet.ca...
> On 09/12/2005 2:54 PM, Walt Davidson wrote:
> > On 9 Dec 2005 18:52:46 GMT, Lloyd <lloyd@no.spammmmm> wrote:
> >
> >> that web sight is hosted on a earthlink server and is in violation of
> >> their hate speech TOS. I have writen to abuse@abuse.earthlink.net to
> >> complain about it and get the sight pulled. good pple must be
> >> vigilant against hate just like k1man always says.
> >
> > I am very surprised to hear it. I thought such things were perfectly
> > legal in the USA, under the terms of the First Amendment.
> >
> > In countries like the UK, where free speech is not a right, it would
> > indeed be illegal.
> >
> > 73 de G3NYY
>
> Depends. What does "free" mean, in the real world?

4458. Re: LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts peoples names on moving contracts without THEIR Knowledge. (925) 876-7441 Lwest@chipmancorp.com 925-825-5000

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:39:43 UTC
From: DecaturTxCowboy <DTC@boogie_boggie.blog>
Message-ID: <POImf.30212$dO2.1579@newssvr29.news.prodigy.net>
Source record: 66755
Cross-posted to: yu.oglasi,alt.internet.wireless,alt.cellular.cingular,rec.radio.amateur.antenna,alt.fifty-plus.friends

verynicemaria@hotmail.com wrote:
> jermainsanchezrangel@hotmail.com wrote:
>
>>LINDA WEST http://www.e-thepeople.org/poll/29878/view?s_a=res puts
>>peoples names on moving contracts without THEIR Knowledge.
> this has been mailed in a xmas card to all on linda's street.
>
> ROY & ROBERTA
> MICHAEL & NANALEE
> LARRY & WENDY
> JOSEPH & MARGARET
> BONNIE
> CLINTON & SHARON
> KEVIN & CANDIS
> BRIAN & PAOLA
> KENNETH & JOAN

Sniffs the air like a lone wolf on the prarie and smells lible lawsuit.

4459. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:55:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <p1Jmf.30213$dO2.5156@newssvr29.news.prodigy.net>
Source record: 66756

Owen Duffy wrote:
> Interesting to see use of such a long line. We have been reliably
> informed that nobody uses more than 75' or so!

Actually, the assertion was that 75' is about average. And
even this special case problem doesn't rise to the level of
your 100 meter example.
--
73, Cecil http://www.qsl.net/w5dxp

4460. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 22:58:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <_3Jmf.30214$dO2.8129@newssvr29.news.prodigy.net>
Source record: 66757

Mike wrote:
> I had a bad experience with Belden 9913 ...

Me too. I just can't seem to keep water out of it.
--
73, Cecil http://www.qsl.net/w5dxp

4461. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 23:22:27 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pmoprb85261b9@news.supernews.com>
Source record: 66758

>If Davis 9914 has the center conductor suspended by a thin spiral
thing like 9913,

Davis BuryFlex 9914 does not have the center conductor suspended by a thin
spiral.
1. http://www.davisrf.com/ham1/coax.htm#buryflex

It amazes me that no one else (that I can find) has found Davis BuryFlex to
be "bad coax". It has been in production well over 10 years.
Moreover I am amazed how many of you are non-thinking lambs following along
head-to-tail after your shepherd.
And also Davis emphasizes in it's data that this coax is flexible enough for
rotator loops and yet one guy says it is "bad coax" and so everyone falls to
their knees and worships accordingly?

And as far as data goes...is this guys data more accurate then the Davis RF
company that has been in the wire and cable business
with engineering professionals on the payroll since 1980? Sheesh......take
off the blinders people.....thousands of miles of Davis 9914 have been
installed by government,commercial and amateur stations and just now we find
out it's "bad coax" after more than 10 years?

Somebody is asleep at the switch.......

--

Charlie

"Mike" <km6ab@REMOVETHIS.pacbell.net> wrote in message
news:wEImf.30207$dO2.18090@newssvr29.news.prodigy.net...
>I had a bad experience with Belden 9913 and if Davis 9914 has the same
>mechanical properties, be careful. I taped some 9913 to a mast and sometime
>later discovered it had been squished flat from the tight wrap of
>electrical tape. I have also seen people ty-rap 9913 and destroy its shape.
>If Davis 9914 has the center conductor suspended by a thin spiral thing
>like 9913, I would not be surprised with varying performance when bending
>it. Here is some coax that looks like better performance than 9913 or Davis
>9914 (2.7dB/450MHz/100ft) has the same Polyethylene outer jacket as Davis
>and is cheaper. Check
>http://yanta.pair.com/jefatech/specsheets/LL400Specs.pdf
> Mike
>
> Charlie wrote:
>> I would recommend you take a look at Davis RF "BuryFlex" 9914. It is
>> very nearly the exact same loss per 100ft (within a couple tenths of a
>> db) as LMR400 and/or 9913. It can be directly buried in the soil with no

>> other provisions needed. It has an abrasion resistant non-contaminating
>> jacket that has a warranted 20 year service life. It is also quite
>> affordable at about $.60/ft. It is very flexible and indeed is fine even
>> as rotator loops. I use it on all bands I run from HF thru 6M and 2M. It
>> uses standard UHF or N connectors as well. Loss per 100ft at 400MHZ is
>> 2.9db
>>
>> Check it out here....
>>
>> 1. http://www.davisrf.com/ham1/coax.htm#buryflex
>>

4462. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-10 23:34:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <aCJmf.30216$dO2.9255@newssvr29.news.prodigy.net>
Source record: 66759

Charlie wrote:
> Somebody is asleep at the switch.......

The great majority of humans who have ever lived
found it easier to follow than to think. (Just an
observation - I don't know anything about 9914.)
--
73, Cecil http://www.qsl.net/w5dxp

4463. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 00:41:06 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <a7tmp156di0u34u38lk9em9c6k4vsfbnbp@4ax.com>
Source record: 66768
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On 10 Dec 2005 15:15:29 GMT, Lloyd <lloyd@no.spammmmm> wrote:

>On 10 Dec 2005 14:46:14 GMT, Steveo <moparholic@hotmail.com> wrote:
>>
>> Hey fucknut, does Chris Caputo approve of your altering your header to
>> read
>> http://www.TarrNews.net - FREE NNTP Access
>
>why dont you read his TOS and find out steve robenson? k1man would
>never have to ask a dumb question like that because k1man is a great
>man.

Oh, you're the anti-free speech waster who complained to the ISP about
this 'politically-incorrect' site. Well it's still up and running
despite your mendacious attempts to gag it, which shows just how much
clout *you* carry in this medium! Waster! Hehe!

--

"What is now proved was once only imagin'd" - William Blake

4464. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 00:46:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pmtnar3ej7ee3@corp.supernews.com>
Source record: 66760

I'd be glad to compare results and methodologies with anyone else who
has measured this coax. It would be particularly interesting and
educational if someone else's results are significantly different from mine.

Roy Lewallen, W7EL

Charlie wrote:
>>If Davis 9914 has the center conductor suspended by a thin spiral
>
> thing like 9913,
>
> Davis BuryFlex 9914 does not have the center conductor suspended by a thin
> spiral.
> 1. http://www.davisrf.com/ham1/coax.htm#buryflex
>
> It amazes me that no one else (that I can find) has found Davis BuryFlex to
> be "bad coax". It has been in production well over 10 years.
> Moreover I am amazed how many of you are non-thinking lambs following along
> head-to-tail after your shepherd.
> And also Davis emphasizes in it's data that this coax is flexible enough for
> rotator loops and yet one guy says it is "bad coax" and so everyone falls to
> their knees and worships accordingly?
>
> And as far as data goes...is this guys data more accurate then the Davis RF
> company that has been in the wire and cable business
> with engineering professionals on the payroll since 1980? Sheesh......take
> off the blinders people.....thousands of miles of Davis 9914 have been
> installed by government,commercial and amateur stations and just now we find
> out it's "bad coax" after more than 10 years?
>
> Somebody is asleep at the switch.......
>

4465. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 00:47:06 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <6gtmp1dqk4qglmcigdvc42tj3ojndi2rcv@4ax.com>
Source record: 66770
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 17:58:51 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 10 Dec 2005 17:26:11 GMT, Mexicana Aeronï¿½utica y Spacia
>Administraciï¿½n <webmaestro@masa.gob.mx> wrote:
>
>>Hmm, I like it so I think I'll download everything before it goes offline
>>and repost it on some server in Russia.
>
>I wouldn't be surprised if it was illegal in the UK to even LOOK at
>the site! It's against the law here to possess racially inflammatory
>material. If it's in the browser cache on your PC, you possess it ...
>right?

Aw, c'mon, Walt. We all know there are a lot of black people that
genuinely *don't* deserve to be denigrated in any way. But then again,
there are a lot that - simply by the way they act - do and this site
does a screamingly funny job of it - only to that particular sub-group
whom we've all encountered, mind, whether we choose to admit it or
not..
--

"What is now proved was once only imagin'd" - William Blake

4466. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 00:51:22 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <hqtmp19ukimj6mhu8qaga62c80tdgth4bo@4ax.com>
Source record: 66772
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 18:25:11 GMT, Mexicana Aeronï¿½utica y Spacia
Administraciï¿½n <webmaestro@masa.gob.mx> wrote:

>Except that I'm in the USA so I have nothing to worry about.

!!!!!!!!!!
>
>The UK is pathetic. Though I'm descended from Brits, I realize why my
>country declared independence. America may have its problems, but I
>expect that British culture will be extinct within a century, having
>first been turned into an joyless Orwellian police state before finally
>collapsing into anarchy.

We're just a few leagues ahead of you in the sewer pipe of political
censorship; that's all. In ten years' time, your first amendment won't
be worth Jack any more (it's continually being eroded even as we
speak).
--

"What is now proved was once only imagin'd" - William Blake

4467. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 00:55:14 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <gstmp191emfdesinotc3o8c5a9gbri94gs@4ax.com>
Source record: 66761

On Sat, 10 Dec 2005 09:31:59 -0500, "Dee Flint"
<deeflint01@comcast.net> wrote:

>
>"Walt Davidson" <g3nyy@despammed.com> wrote in message
>news:1q3lp11g12rg70qfj7qr3jpffcrhdrdkil@4ax.com...
>> On Fri, 9 Dec 2005 18:19:18 -0500, "Dee Flint"
>> <deeflint01@comcast.net> wrote:
>>
>>>An ISP is a private entity and does not have to allow it even if it is
>>>legal. When you sign up with an ISP, you are entering into a contract and
>>>agreeing to its terms and conditions. If the ISP says no hate speech,
>>>then
>>>they can legally pull the page or sight and even cancel the user's service
>>>due to violating the contract.
>>
>> I think you may find it cannot, if by so doing it breaches the First
>> Amendment.
>>
>> In the UK, a contract is not legally binding if it contains something
>> that is illegal. (In the USA, YMMD.)
>>
>> 73 de G3NYY
>>
>> P.S. It's a "site", not a "sight".
>>
>> --
>> Walt Davidson Email: g3nyy @despammed.com
>
>
>Don't get caught up in the "spelling" wars. I noticed that my fingers had
>typed the wrong one just after I hit the send button.
>
>Free speech has never meant that a person can say whatever they want,
>wherever they want, whenever they want. There are many laws defining what
>you can and cannot do. For example, I can stand on a public sidewalk (i.e.
>publicly owned properties) handing out flyers all I want to so long as I am
>not doing anything illegal. On the other hand, if I want to hand them out
>in the shopping center (i.e. privately owned, not paid for by tax dollars),
>I must have the permission of the shopping center owner/management. The
>subject of the flyers is irrelevant. Our tax dollars do not pay for the ISP
>and so as a private entity they can limit usage of their service.
>
>A business can legally prevent its employees from handing out political

>material (campaign buttons, flyers, etc) on its premises. If they have such
>a policy (and this has been clearly published to its employees), they can
>fire an employee for doing so and it does not violate the employee's right
>to freedom of speech.
>
>To really understand the First Amendment and what freedom of speech really
>means, one needs to study it in the context of history. It had been a
>common practice for governments and rulers to throw people in jail simply
>for criticizing the government or even simply disagreeing with its policies.
>The First Amendment was crafted to protect people from being jailed for such
>and to enable and even encourage open discussion and debate on issues. It
>was not intended to protect libel, slander, fraud, speech encouraging
>violence, etc. Nor was it intended to force people to listen to someone
>else's free speech. If someone comes on my lawn and starts making a speech,
>I can call the police and have him escorted off. Freedom of speech does not
>allow him to force me to listen or to use my property.
>
>The extent to which freedom of speech applies is endlessly debated and the
>amendment endlessly interpreted. All that people can really agree on is
>that it was not intended to allow an "anything goes" type of approach. They
>cannot agree on what it does cover however.
>
>Dee D. Flint, N8UZE
>

The only thing the constitution says about free speech is that
"Congress shall make no law... abridging the freedom of speech, or of
the press...

Beyond that, our citizenry does a pretty good job of abridging each
others' speech, as you pointed out in your post :-)

bob
k5qwg

4468. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 00:59:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pmufpro1cm9e6@corp.supernews.com>
Source record: 66762

Phil Wheeler wrote:
> Wes Stewart wrote:
>
>> On Sat, 10 Dec 2005 06:27:18 -0600, "Charlie" <charlie@play.com>
>> wrote:
>>
>>
>>> Sounds like a flawed test setup.
>>
>>
>>
>> Hah hah. Very funny.
>>
>> If Roy says it's bad--it's bad.
>
>
> Agreed!

Please, folks, I didn't say that Davis BuryFlex is bad. I said that careful measurements of the one 100 foot piece I have show it to have much more loss than the specification indicates, and that the loss is variable with flexing and bending. It's possible that the piece I have is somehow defective. Everyone can interpret and act on this or not as they choose. But I certainly won't be installing this brand and type of cable in a critical application without carefully testing it first.

Huge numbers of ravingly positive testimonials can be found for CFA antennas, cryogenically treated oxygen-free speaker cable, astrological forcasts, and homeopathic remedies. I'm not interested in testimonials for those or for coax cable either, all for the same reason. But I'd love to see the results of anyone else's measurements.

The 100 foot piece I have was purchased several years ago from The Wireman, so I know it's the genuine article. (It's also marked as Davis BuryFlex.) It's been inside and unused since.

Roy Lewallen, W7EL

4469. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:00:12 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pmuh5dloijsf6@news.supernews.com>
Source record: 66763

TY Cecil...sadly that is the essence of this thread.....

--

Charlie

"Cecil Moore" <mycall@arrl.net> wrote in message
news:aCJmf.30216$dO2.9255@newssvr29.news.prodigy.net...
> Charlie wrote:
>> Somebody is asleep at the switch.......
>
> The great majority of humans who have ever lived
> found it easier to follow than to think. (Just an
> observation - I don't know anything about 9914.)
> --
> 73, Cecil http://www.qsl.net/w5dxp

4470. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:01:36 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pmujnmbrqan11@news.supernews.com>
Source record: 66764

I have emailed Davis RF and asked them to send me their test results. Yes
it will be interesting.

Roy..doesn't seem a bit odd that NO ONE ELSE in over 10 years of BuryFlex
production has cited these same alarming "test results".

--

Charlie

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11pmtnar3ej7ee3@corp.supernews.com...
> I'd be glad to compare results and methodologies with anyone else who has
> measured this coax. It would be particularly interesting and educational
> if someone else's results are significantly different from mine.
>
> Roy Lewallen, W7EL
>
> Charlie wrote:
>>>If Davis 9914 has the center conductor suspended by a thin spiral
>>
>> thing like 9913,
>>
>> Davis BuryFlex 9914 does not have the center conductor suspended by a
>> thin spiral.
>> 1. http://www.davisrf.com/ham1/coax.htm#buryflex
>>
>> It amazes me that no one else (that I can find) has found Davis BuryFlex
>> to be "bad coax". It has been in production well over 10 years.
>> Moreover I am amazed how many of you are non-thinking lambs following
>> along head-to-tail after your shepherd.
>> And also Davis emphasizes in it's data that this coax is flexible enough
>> for rotator loops and yet one guy says it is "bad coax" and so everyone
>> falls to their knees and worships accordingly?
>>
>> And as far as data goes...is this guys data more accurate then the Davis
>> RF company that has been in the wire and cable business
>> with engineering professionals on the payroll since 1980?
>> Sheesh......take off the blinders people.....thousands of miles of Davis
>> 9914 have been installed by government,commercial and amateur stations
>> and just now we find out it's "bad coax" after more than 10 years?
>>
>> Somebody is asleep at the switch.......
>>

4471. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:01:47 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <3iump1dvaiabae3b9cfscugm5vghlvg6fv@4ax.com>
Source record: 66773
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 18:29:27 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 10 Dec 2005 15:03:35 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>nevermore wrote:
>>> Walt must have been asleep in the back of the room when his
>>> teacher talked about the Constitution.
>>
>>Why would g3nyy's teacher have talked about The Constitution,
>>written by a bunch of previous rebel Enemies of the Crown?
>
>Exactly!

I don't think it's so much that; it's more that American history is
just too short to be worth teaching (certainly by European standards).
--

"What is now proved was once only imagin'd" - William Blake

4472. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:15:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pmve465hco98d@corp.supernews.com>
Source record: 66765

Charlie wrote:
> I have emailed Davis RF and asked them to send me their test results. Yes
> it will be interesting.
>
> Roy..doesn't seem a bit odd that NO ONE ELSE in over 10 years of BuryFlex
> production has cited these same alarming "test results".

No. My experience is that the vast majority of amateurs don't have the ability and/or confidence and/or interest and/or equipment to make good measurements. And lacking the ability to measure it, very few would be able to discern the difference in loss. If my measurements are typical, commercial and government users (if there indeed are any for this particular cable type) would quietly reject the stuff on incoming inspection and order something else.

I do have a high degree of confidence that my measurements are accurate. I took a lot of care in characterizing the cable before using it for making remote antenna impedance measurements in the course of a consulting job. But it's entirely possible that the particular piece of cable I have is defective. That would just point to a quality control problem rather than overzealous specsmanship.

In your query of Davis, I hope you asked them if they routinely test production batches for loss, and if so how often and when the last test was run. It's possible that something in their process changed relatively recently.

If no other reader of this newsgroup has some of this cable and the ability to test it, I'll see if I can arrange for someone else to make measurements and post results.

Roy Lewallen, W7EL

4473. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:33:59 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pn0gglob7l891@news.supernews.com>
Source record: 66766

Roy the kind of test results you cited would be extremely evident whether someone has a network analyzer or just an swr meter.
That defense is sorely transparent in my opinion. To suggest that most amateurs would not even have any interest if their bent or coiled 9914 suddenly jumped off the scale for loss and mismatch is ludicrous to say the least.

Let me be clear ...I am not disputing what you claim you got as test results. My conclusion is either the 100ft length you had was bad or something skewed your calibrated setup. My career was in microwave r&d and I know that it takes repeatable test results to form a valid, verifiable and publishable data.
This is not personal Roy....but it is somewhat stimulating.

--

Charlie

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11pmve465hco98d@corp.supernews.com...
> Charlie wrote:
>> I have emailed Davis RF and asked them to send me their test results.
>> Yes it will be interesting.
>>
>> Roy..doesn't seem a bit odd that NO ONE ELSE in over 10 years of BuryFlex
>> production has cited these same alarming "test results".
>
> No. My experience is that the vast majority of amateurs don't have the
> ability and/or confidence and/or interest and/or equipment to make good
> measurements. And lacking the ability to measure it, very few would be
> able to discern the difference in loss. If my measurements are typical,
> commercial and government users (if there indeed are any for this
> particular cable type) would quietly reject the stuff on incoming
> inspection and order something else.
>
> I do have a high degree of confidence that my measurements are accurate. I
> took a lot of care in characterizing the cable before using it for making
> remote antenna impedance measurements in the course of a consulting job.
> But it's entirely possible that the particular piece of cable I have is
> defective. That would just point to a quality control problem rather than
> overzealous specsmanship.
>
> In your query of Davis, I hope you asked them if they routinely test
> production batches for loss, and if so how often and when the last test
> was run. It's possible that something in their process changed relatively

> recently.
>
> If no other reader of this newsgroup has some of this cable and the
> ability to test it, I'll see if I can arrange for someone else to make
> measurements and post results.
>
> Roy Lewallen, W7EL
>

4474. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:38:38 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <740np1hp0pauohor2336un600ni8fbvod6@4ax.com>
Source record: 66767

On Sat, 10 Dec 2005 17:15:44 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>If no other reader of this newsgroup has some of this cable and the
>ability to test it, I'll see if I can arrange for someone else to make
>measurements and post results.

Roy, this seems a case of brand loyalty vs objective measurement and
evaluation (albeit on a single sample).

You will change your mind based on more measurement data, either
strengthening your existing opionion or changing it.

Those with brand loyalty already know all they need to know, life is
comfortable.

You are talking different languages, and the only way there will be
agreement is if you capitulate (which would be unprincipled in the
absence of evidence).

Owen

I remember the fierce debates over 9913, there were nearly as many
words written about how fabulous it was, as there were words written
on how to keep water out of it.
--

4475. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:42:18 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <S-SdneQEIPFIHgbenZ2dnUVZ_sadnZ2d@comcast.com>
Source record: 66769

"Ross Biggar" <rbiggar@xtra.co.nz> wrote in message
news:rTtmf.7128$vH5.363932@news.xtra.co.nz...
>I am putting up a second tower , but it will be about 200feet from the
>shack and about 70feet high.
> What coax is recommended to reduce loss to a minimum,and to feed a
> multiband beam with a 2kw amplifier.
> Hard line excepted due to cost.
> Regards
> Ross
> ZL1WN
>
I needed conventional low loss coax on the job a few years ago. Boss was paying for it, so I was not pinching pennies. Best I could find was the Times LMR400. As I recall, the center conductor is #9; so, it may not fit some brands of N connectors. Unlike the 9913, this will not soak up water. The loss at 50 MHz is 0.9 db, vs 1.6 db for 213 (100 feet). I know you want 20 meters, but 50 MHz is the lowest frequency I have any numbers for.

Tam/WB2TT

4476. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 01:46:15 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pn17e4butp40b@news.supernews.com>
Source record: 66771

Owen it is NOT brand loyalty. It is the publicly published data by RF Davis (for the past 10+ years) vs. Roy's one-shot test setup some years ago. I'm not out to discredit Roy...I even shook his hand once at a Hamfest.

--

Charlie

"Owen Duffy" <owen@no.where> wrote in message news:740np1hp0pauohor2336un600ni8fbvod6@4ax.com...
> On Sat, 10 Dec 2005 17:15:44 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>>If no other reader of this newsgroup has some of this cable and the
>>ability to test it, I'll see if I can arrange for someone else to make
>>measurements and post results.
>
> Roy, this seems a case of brand loyalty vs objective measurement and
> evaluation (albeit on a single sample).
>
> You will change your mind based on more measurement data, either
> strengthening your existing opionion or changing it.
>
> Those with brand loyalty already know all they need to know, life is
> comfortable.
>
> You are talking different languages, and the only way there will be
> agreement is if you capitulate (which would be unprincipled in the
> absence of evidence).
>
> Owen
>
> I remember the fierce debates over 9913, there were nearly as many
> words written about how fabulous it was, as there were words written
> on how to keep water out of it.
> --

4477. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:09:30 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <tg1np1h10ka51cb754glird1he1q5odjd5@4ax.com>
Source record: 66774

On Sat, 10 Dec 2005 19:46:15 -0600, "Charlie" <charlie@play.com>
wrote:

>Owen it is NOT brand loyalty. It is the publicly published data by RF Davis
>(for the past 10+ years) vs. Roy's one-shot test setup some years ago. I'm
>not out to discredit Roy...I even shook his hand once at a Hamfest.

We should be a little suspicious of manufacturers claims. Davis' can
be expected to support their product.

Roy's single poor experience is concerning, indicating either a
quality control issue, or more general non-compliance with spec (both
are issues for Davis). An independent test of stock cable and possibly
Roy's sample would be most interesting.

I know I have made measurements and adjustments at times and in
searching for possible explanations, the cable quality is on the
radar. In one of those cases, a mobile installation could not be
trimmed properly, and the Taiwanese RG58 centre conductor was so far
off centre, it was nearly touching the braid.

We have all cut cables up and found inconsistent braid weave, open
braid weave, voids in the dielectric, faulty stranding of inner
conductor, off centre centre conductors. It is those kind of issues
that downgrade a suppliers reputation, not their ability to select a
good cable sample for laboratory measurement.

Perhaps if you're a whiz, you should perform some measurements so you
can report first hand your experience.

We don't see the Davis stuff on this side of the world. The concept
seems a good one, PE sheath, braid+foil outer, foam dielectric,
stranded inner, but you have to ask yourself why they haven't
displaced Heliax and its copies. I suspect the reasons include IM and
noise issues associated with the braid+foil, mechanical issues with
the foam, and resistance to water. Experience with noise and IM
problems with braid+foil coax in fixed installations makes me wonder
how it stands up in a rigorous test of flexing for a rotator loop, not
anecdotal evidence, but a structured test.

Owen
--

4478. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:12:10 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <qk2np1pc38sr8e0bpbtm4c1g2h3b2kgcdo@4ax.com>
Source record: 66775

On Sat, 10 Dec 2005 20:42:18 -0500, "Tam/WB2TT"
<t-tammaru@c0mca$t.net> wrote:

>
>"Ross Biggar" <rbiggar@xtra.co.nz> wrote in message
>news:rTtmf.7128$vH5.363932@news.xtra.co.nz...
>>I am putting up a second tower , but it will be about 200feet from the
>>shack and about 70feet high.
>> What coax is recommended to reduce loss to a minimum,and to feed a
>> multiband beam with a 2kw amplifier.
>> Hard line excepted due to cost.
>> Regards
>> Ross
>> ZL1WN
>>
>I needed conventional low loss coax on the job a few years ago. Boss was
>paying for it, so I was not pinching pennies. Best I could find was the
>Times LMR400. As I recall, the center conductor is #9; so, it may not fit
>some brands of N connectors. Unlike the 9913, this will not soak up water.
>The loss at 50 MHz is 0.9 db, vs 1.6 db for 213 (100 feet). I know you want
>20 meters, but 50 MHz is the lowest frequency I have any numbers for.
>

LMR400: 300' at 14.2MHz with VSWR=1.5, loss~=1.5dB

>Tam/WB2TT
>
--

4479. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:22:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pn3bvjgt34j22@corp.supernews.com>
Source record: 66676

Charlie wrote:
> Roy the kind of test results you cited would be extremely evident whether
> someone has a network analyzer or just an swr meter.
> That defense is sorely transparent in my opinion. To suggest that most
> amateurs would not even have any interest if their bent or coiled 9914
> suddenly jumped off the scale for loss and mismatch is ludicrous to say the
> least.

Would you really notice if your cable loss was about 3 dB higher than specified at 400 MHz and if it varied by a dB or two when the cable is flexed and bent? What measurement equipment do you use which would cause this amount of extra loss to "jump off the scale"? And what causes you to think that increased loss would cause mismatch to "jump off the scale"? Increased loss will improve, not degrade, the impedance match.

> Let me be clear ...I am not disputing what you claim you got as test
> results. My conclusion is either the 100ft length you had was bad or
> something skewed your calibrated setup.

What you have as evidence is Davis' spec on the one hand, and my measurement report on the other. You've chosen to believe that Davis' cable all meets its published specifications. I have exactly the same evidence, but know my capabilities and that of my equipment, so I believe my measurements -- but always keeping in mind that it's a single sample. Additional measurements made by someone else on another piece of the cable would increase the knowledge base, although I'm sure there are people who would choose to ignore the evidence no matter how much is presented.

> My career was in microwave r&d and
> I know that it takes repeatable test results to form a valid, verifiable and
> publishable data.

That's great! Then you have the background to be able to make decent measurements, and you said you're using some of the cable. Why not just measure the loss in a length of it and report your results?

> This is not personal Roy....but it is somewhat stimulating.

I hope it's caused a few people to think a bit about how they evaluate evidence to determine the truth of a matter. It's something which too many people are woefully unable or unwilling to do.

Roy Lewallen, W7EL

4480. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:26:07 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <v04mp1t9bk9alqi0n9rpcnr3peal6lqcbv@4ax.com>
Source record: 66681
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 17:54:22 +0100, Martin Holterman
<martin.holterman@wxs.nl> wrote:

>nevermore wrote:
>> On Sat, 10 Dec 2005 16:48:43 +0100, Martin Holterman
>> <martin.holterman@wxs.nl> wrote:
>>
>>
>>>nevermore wrote:
>>>
>>>>On Sat, 10 Dec 2005 15:03:35 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>>>
>>>>
>>>>
>>>>>nevermore wrote:
>>>>>
>>>>>
>>>>>>Walt must have been asleep in the back of the room when his
>>>>>>teacher talked about the Constitution.
>>>>>
>>>>>Why would g3nyy's teacher have talked about The Constitution,
>>>>>written by a bunch of previous rebel Enemies of the Crown?
>>>>
>>>>
>>>>
>>>>*Anyone* talks about US Constitutional free speech without knowing
>>>>that the First Amendment is *only* a guarantee against abridgement by
>>>>the government itself, is a moron.
>>>
>>>Horizontal effect of constitutionally guaranteed rights is an element of
>>>many countries' legal systems. When I studied a bit of law in Ireland, I
>>>learned about constitutional torts. The idea is that, take free speach,
>>>if torts law does not protect my right to free speach when it should,
>>>than this is a shortcoming on the part of the state, i.e. the court and
>>>the legislature. To rectify this, the plaintiff, when suing another
>>>private person in tort, can base his case on his constitutional right.
>>>In tort, there are about a dozen or so precedents where this reasoning
>>>was upheld.
>>>In my own country, the Netherlands, the constitutionally protected
>>>rights do not have horizontal effect directly, but they are used for the
>>>interpretation of open norms in civil law, such as the public order
>>>exception to free contracting and the due care requirement in tort law.
>>>

>>>I hope you learned something,
>>
>>
>> I don't give a shit how it works in the Netherlands.. It sure doesn't
>> work that way in the USA.
>>
>>
>
>I know, but I have to say that attitude is not very helpful. It's gotten
>Americans in trouble before.
>
>Martin Holterman

hey, thanks, but we can take care of ourselves... and given the
state of the rest of the world, it's a good thing that we can.
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4481. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:26:08 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <u65mp1pspcliql508c8jqvuagtp8v20ahk@4ax.com>
Source record: 66678
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 17:32:10 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>nevermore wrote:
>> On Sat, 10 Dec 2005 16:35:52 GMT, Cecil Moore <mycall@arrl.net> wrote:
>>
>>
>>>nevermore wrote:
>>>
>>>>I don't give a shit how it works in the Netherlands.. It sure doesn't
>>>>work that way in the USA.
>>>
>>>Lots of things don't work anymore in the USA. :-)
>>
>>
>>
>> Yeah, unfortunately we still have lots of welfare leeches, but
>> fortunately, OTOH, there's more than enough "stuff" working good in
>> the USA to make the losers of the world hate and fear us....
>> --
>>
>> If Nevermore tries paying cap gains with a 1040, he'll
>> be in jail soon enough.
>> --Zepp Jamieson, Dec 3, 2005
>> http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&
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>> Jamieson, obviously never had any cap gains to report, because
>> <LOL> line 13 on the 1040 form, under income, as shown below, is
>> clearly where you report your capital gains.
>>
>> http://www.irs.gov/pub/irs-pdf/f1040.pdf
>>
>
>Some of those "losers" are doing pretty well for themselves.
>China's economy should surpass that of the U.S. in the near
>future, for example. As for hating us, why would anyone hate
>a cash cow?
>73,
>Tom Donaly, KA6RUH

It takes a substantial larger number of people for China to approach
the USA's economy... and, of course, most of the EU is still
suffering from head_up_ass syndrome.
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

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clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4482. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:26:09 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <af8mp1dbbcfld18v9usc5b70knhs0cuenv@4ax.com>
Source record: 66677
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 18:29:27 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 10 Dec 2005 11:50:51 -0500, nevermore
><stevencanyon@y***hoo.com> wrote:
>
>> OTOH, there's more than enough "stuff" working good in
>>the USA to make the losers of the world hate and fear us....
>
>Well, you got the "hate" part right.
>
>:-)
>
>73 de G3NYY

Good, good, if the leftist morons in America, Europe, and Russia, and
the terrorists in the Middle East didn't hate the USA, I'd wonder what
we were doing wrong.
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
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http://www.irs.gov/pub/irs-pdf/f1040.pdf

4483. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:26:10 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <mp8mp1lmc3ek8iekeg9s8gtsulgk013jk6@4ax.com>
Source record: 66679
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 18:29:27 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 10 Dec 2005 10:26:39 -0500, nevermore
><stevencanyon@y***hoo.com> wrote:
>
>>Then the moron should try to keep his mouth shut about things that he
>>doesn't understand.
>>
>>>Dee D. Flint, N8UZE
>
>Thank you for confirming and vindicating the opinion that most people
>in the civilized countries of the world hold about Americans these
>days.
>
>73 de G3NYY

Opinions of you morons and losers are of little interest to me, other
than the entertainment you provide.
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4484. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:26:10 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <im8mp1lursrij4j3fvlb392o7ns1j0qh5o@4ax.com>
Source record: 66680
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sat, 10 Dec 2005 18:29:27 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 10 Dec 2005 15:03:35 GMT, Cecil Moore <mycall@arrl.net> wrote:
>
>>nevermore wrote:
>>> Walt must have been asleep in the back of the room when his
>>> teacher talked about the Constitution.
>>
>>Why would g3nyy's teacher have talked about The Constitution,
>>written by a bunch of previous rebel Enemies of the Crown?
>
>Exactly!
>
>73 de G3NYY

Well, then, like I suggested, don't open your mouth and talk about
things which you know nothing about.... Ignorance like yours is
obvious enough without you broadcasting it.
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

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<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4485. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 02:42:34 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <umMmf.2308$nm.99@newsread2.news.atl.earthlink.net>
Source record: 66682

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11plec7eqh96s81@corp.supernews.com...
>>
> I've got some of that which I purchased new, and did some extensive
> tests on it with a network analyzer. The loss varies all over the map
> depending on how you coil, bend, or flex the cable, and I never saw loss
> anywhere near as low as the spec says. A typical value at 400 MHz was
> more like 5 - 5.5 dB/100 ft. Glad you're happy with it.
>
> Roy Lewallen, W7EL

Roy what kind of coax do you recommend along the same type ? I soon plan on putting up several beams, tribander for the low bands, 6 meter, 2 meter and a 432 antenna. Should be running about 125 feet or so. While I know hardline would be best for the VHF , I don't want to (can't spend the money, easy to install for the rotator) so I want to stay with one of the 9913/lmr400 types. I have had a piece of 9913 up for about 10 years and it seems to be ok, no water I can tell, I still would like to go with a solid foam type instead of the hollow core .

Just looking at the specks and advertising can sometimes be deceiving.

de KU4PT

4486. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 03:00:28 UTC
From: Mexicana Aeronáutica y Spacia Administraci ón <webmaestro@masa.gob.mx>
Message-ID: <gDMmf.30258$dO2.24365@newssvr29.news.prodigy.net>
Source record: 66683
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd wrote...
> On 10 Dec 2005 05:03:03 GMT, Steveo <moparholic@hotmail.com> wrote:
>
>>Subject: Re: http://niggermania.com/
>>From: Steveo <moparholic@hotmail.com>
>>Date: 10 Dec 2005 05:03:03 GMT
>>Organization: http://newsreader.com/
>>Path: nntp.giganews.com!feed4.newsreader.com!newsreader.com!newsh.newsreader.com!ellis.n
ewsreader.com!not-for-mail
>>Message-ID: <20051210000303.410$Bv@newsreader.com>
>
>
> https://newsreader.com/news/newaccount says this about you
>
> 7. We reserve the right to disable your ability to create (post or
> mail) Usenet or e-mail messages with this service. We will do this if
> we believe your messages are considered to be abusive by the current
> standards of the Usenet and Internet community, or disruptive to the
> functioning of Usenet, the Internet, or this service. DO NOT post any
> form of SPAM or ADVERTISING - we will not allow this. If you post any
> articles which are seen by the usenet community as SPAM or unwanted
> ADVERTISING, we will disable your posting ability and and we will
> charge a $10 per message clean-up fee to your credit card.
>
> 8. We reserve the right to refuse service to anyone if we feel their
> use of the service is (or will be) disruptive to the functioning of
> Usenet, the Internet, or this service.
>
> and now you have been warned steve robenson.

I see a reference to current standards of Usenet and Internet community,
and since anything goes on the Internet, it niggermania.com is not in
violation of TOS. How exactly did this website "disrupt" this newsgroup?

4487. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 03:25:43 UTC
From: Mexicana Aeronáutica y Spacia Administraci ón <webmaestro@masa.gob.mx>
Message-ID: <X_Mmf.30268$dO2.16174@newssvr29.news.prodigy.net>
Source record: 66684
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd wrote...
> On Sun, 11 Dec 2005 03:00:28 GMT, Mexicana Aeroni¿½utica y Spacia Administraciï¿½n
<webmaestro@masa.gob.mx> wrote:
>
>>I see a reference to current standards of Usenet and Internet community,
>>and since anything goes on the Internet, it niggermania.com is not in
>>violation of TOS. How exactly did this website "disrupt" this newsgroup?
>
>
> you cant read real good. those things were about newsreader.com and
> not niggermania.com which is a hole different subject. moparholic was
> being told about his isp at newsreader.com and everyone but you
> figured that out.
>
> Now take your fake mexican headers as a example. I bet progidy
> wouldnt like them at all.

But I don't care what they don't like, ISPs are a dime a dozen and I can
easily find another one. Actually, I'm inclined to subscribe to Altopia,
they fiercely protect their customer's identities and really have no TOS
other than turning over customer records if subpoenaed by an American
court. Threatening to kill people is a crime and would qualify, but
offending people is perfectly legal under U.S. law.

4488. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 03:57:10 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pn8stqvvd6e51@news.supernews.com>
Source record: 66685

Owen with all due respect there is no "question" why 9914 has not replaced Heliax and that is due to loss factors. BTW 9914 is impervious to water in and of itself..so evidently you have not done much homework on this particular coaxial cable. Davis 9914 is recommended for rotator loops. Your supposed quandary about "9914 replacing Heliax" is contrived in my opinion to murk up the waters of this issue and maybe steer focus away from what obviously, at least to me, is an unfortunate one-time testing experience by Roy.

Yes I suppose we should always be "suspicious" of manufacturer's claims but do you exercise that philosophy across the board? How about the tires on your car? How about the prescription medicines you may take and also over the counter meds? How about those fast food burgers? How about your drinking water? Are you as equally "suspicious" of these products or is this philosophy of yours only revealed to others when you want to discredit someone else's data. I think the later and not the former sir.

Owen....I give you a salute for being an obvious "spin doctor" for Roy's one time, one sample, one conclusion, years ago test cycle.
A job well done on the surface..however the underlying facts remain. Davis BuryFlex has been sold for well over 10 years in the "real world" and these same real people, government agencies, municipalities, and service agencies have used thousands of miles of it with no apparent issues. Cite similar tests to Roy's and I'll reconsider.

As for me I'll go with the Davis data, once it arrives, and do a calibration standards trace on their test station. Was Roy's test bench's calibration traceable? It is preposterous you would continually cast aspersions towards a company that has been in the wire and cable business for over 25 years and promote and crusade for a one time shot-in-the-dark independent so-called "test".

You do not fool me sir....best regards.....

-ps How many times do you think Davis has tested their 9914 in the past 10+ years?
More than the one single time Roy has perhaps?

--

Charlie

"Owen Duffy" <owen@no.where> wrote in message
news:tg1np1h10ka51cb754glird1he1q5odjd5@4ax.com...
> On Sat, 10 Dec 2005 19:46:15 -0600, "Charlie" <charlie@play.com>
> wrote:
>

>>Owen it is NOT brand loyalty. It is the publicly published data by RF
>>Davis
>>(for the past 10+ years) vs. Roy's one-shot test setup some years ago.
>>I'm
>>not out to discredit Roy...I even shook his hand once at a Hamfest.
>
> We should be a little suspicious of manufacturers claims. Davis' can
> be expected to support their product.
>
> Roy's single poor experience is concerning, indicating either a
> quality control issue, or more general non-compliance with spec (both
> are issues for Davis). An independent test of stock cable and possibly
> Roy's sample would be most interesting.
>
> I know I have made measurements and adjustments at times and in
> searching for possible explanations, the cable quality is on the
> radar. In one of those cases, a mobile installation could not be
> trimmed properly, and the Taiwanese RG58 centre conductor was so far
> off centre, it was nearly touching the braid.
>
> We have all cut cables up and found inconsistent braid weave, open
> braid weave, voids in the dielectric, faulty stranding of inner
> conductor, off centre centre conductors. It is those kind of issues
> that downgrade a suppliers reputation, not their ability to select a
> good cable sample for laboratory measurement.
>
> Perhaps if you're a whiz, you should perform some measurements so you
> can report first hand your experience.
>
> We don't see the Davis stuff on this side of the world. The concept
> seems a good one, PE sheath, braid+foil outer, foam dielectric,
> stranded inner, but you have to ask yourself why they haven't
> displaced Heliax and its copies. I suspect the reasons include IM and
> noise issues associated with the braid+foil, mechanical issues with
> the foam, and resistance to water. Experience with noise and IM
> problems with braid+foil coax in fixed installations makes me wonder
> how it stands up in a rigorous test of flexing for a rotator loop, not
> anecdotal evidence, but a structured test.
>
> Owen
> --

4489. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 04:54:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dngbddaqr1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66686

To find ALL electrical characteristics and performance of
solid-polyethylene transmission line, use program COAXPAIR, from audio
frequencies to UHF.

Accuracy is of the same order as physical dimensions can be measured.
Use a micrometer to measure inner conductor diameter and diameter over
insulant. Or just guess at it. No need to unwind the cable off the
drum!

In a few seconds, download COAXPAIR from website below and run
immediately.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4490. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 05:39:27 UTC
From: Wes Stewart <*n7ws*@yahoo.com>
Message-ID: <4vdnp11ndlbk4m7b4ji5to0p6k0q1ts3lk@4ax.com>
Source record: 66687

On Sat, 10 Dec 2005 21:50:15 GMT, Owen Duffy <owen@no.where> wrote:

[good stuff snipped]
|
|Someone will probably suggest that LDF6-50 (32mm (1.25") hardline)
|could achieve 0.3dB loss, but could you afford it, would it be good
|value?

I wasn't going to go that far, and I realize it's probably not common in ZL but I've bought lengths of LDF5-50 at ham flea markets. The last purchase, claimed to be about 10 meters worth, but by my estimation at least twice that long, and new and unused, cost me $10 U.S.

Most of this stuff is leftover or removed from commercial two-way or cell phone use and shows up all of the time. LDF4-50 is even more common. I often buy short pieces that have been cut down, just for the connectors that are still on one end.

I find it curious that Andrew cable is seen so often at these events and yet I've -never- even seen a piece of Davis cable, dispite the claims that miles of it are in commercial use.

4491. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 06:06:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ijfnp1hngsgbabl13relffdj8c1etd9qjr@4ax.com>
Source record: 66688

On Sun, 11 Dec 2005 05:39:27 +0000, Wes Stewart <*n7ws*@ yahoo.com>
wrote:

>I wasn't going to go that far, and I realize it's probably not common
>in ZL but I've bought lengths of LDF5-50 at ham flea markets. The
>last purchase, claimed to be about 10 meters worth, but by my
>estimation at least twice that long, and new and unused, cost me $10
>U.S.
>
>Most of this stuff is leftover or removed from commercial two-way or
>cell phone use and shows up all of the time. LDF4-50 is even more
>common. I often buy short pieces that have been cut down, just for
>the connectors that are still on one end.
>
>I find it curious that Andrew cable is seen so often at these events
>and yet I've -never- even seen a piece of Davis cable, dispite the
>claims that miles of it are in commercial use.

I agree with Ian's comments, the larger sizes are often available here
as they are less attractive to hams. But if you buy 3 or 4 lengths of
LDF5 or LDF6 and use connectors to join them, you will run into big $
unless the connectors come very cheap.

Andrews has some braid+foil / foam coax, and they perform roughly
similarly to LMR400, BuryFlex and 9913.

To my mind LDF4-50 would be acceptable in this configuration, and the
great advantage is that if water gets in somewhere, it doesn't wick
right down the cable. I haven't handled BuryFlex, and I saw the claim
it is waterproof, but I suspect it is not as waterproof as Heliax type
cable where the closed cell foam dielectric is bonded to the inner and
outer conductor with an adhesive, and there is no braid to form a
natural wick.

I am in the throes of replacing feedline on a HF dipole to repair
damage by birds. The birds don't seem to eat PE irrigation tube, so I
have fitted RG6 with a W2DU style balun inside 13mm PE tube to defeat
the birds. The birds have attacked the LDF4-50 on the VHF/UHF
antennas, but even if they make a hole in the copper, it doesn't seem
to affect cable performance measurably, probably because the water
can't travel up and down the cable from the hole.

Still, parts of ZL have Keas, and they will eat anything, especially
rubber or plastic! So I feel for our ZL friends running coax over 60m
of ground.

BTW, I added BuryFlex to my online line loss calculator, 9913 and C2FP were already there.

I still like the open line option, but it will be real important to use effective baluns to adequately ensure balance. It used to be common commercial practice when HF Radio was used more widely for international telephony / telegraphy.

Owen
--

4492. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 07:01:11 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_439bb7f6@fidonet.org>
Source record: 66689

"nevermore" bravely wrote to "All" (10 Dec 05 10:26:38)
--- on the heady topic of "Re: Free speech"

ne> From: nevermore <stevencanyon@y***hoo.com>
ne> Xref: core-easynews alt.politics.liberalism:1256540
ne> *Anyone* talks about US Constitutional free speech without knowing
ne> that the First Amendment is *only* a guarantee against abridgement by
ne> the government itself, is a moron.

I don't care about free speech as much as about freedom of assembly
and freedom to circulate. For instance in China another big bunch of
folk have recently been killed by the army in a public gathering. This
is doubly worrisome when Air Marshals here start to get trigger happy
and kill innocent people for no apparent *good* reason other then some
perceived abnormal behaviour. Many people tend to behave *abnormally*
in my opinion. This is a recipe for disaster and people should start
reconsidering the marshals' abnormal behaviour real soon!

A*s*i*m*o*v

... Believe nothing until you question everything...

4493. OT - Schematic wanted for a Tripp Lite PR-25

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 07:33:29 UTC
From: Paul P <p.pinyotREMOVE@REMOVEworldnet.attREMOVE.netREMOVE>
Message-ID: <dDQmf.143524$qk4.73584@bgtnsc05-news.ops.worldnet.att.net>
Source record: 66690

Looking for Tripp Lite PR-25 dc supply schematic. I am repairing one for
the club's repeater. I encountered a few crispy critters and want to verify
the values.
Thanks
Paul.

paul at p pinyot dot com

4494. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 07:57:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dngm4fspc1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66691

As expected, the discussion appears to have fizzled out.

Having for the first time allowed myself to be led astray by the
academic professors and authors and their Bibles on the subject, I
still have the problem of correcting a bug in my computer program. The
program itself, GRNDWAV3, is too interesting, useful and educational
to simply withdraw it.

Lets not be confused by fallible human ideas and notions on -

Reflections from the ground.
Mirror images in the ground.
Antenna gains relative to isotropic.
Antenna gains relative to isotropic with a ground plane.
Antenna gains relative to isotropic of dipoles.
Half hemispheres.
What on Earth is an isotropic antenna anyway?
And now we are being introduced to waveguides.

Thanks to Roy's investigations and clarification, the solution to my
problem is perfectly simple -

"The effective height of a short vertical antenna is half of its
actual height and the voltage induced in it is half of the field
strength in volts per metre."

Which gives the correct answers from my program.

And which was proven and well known 100 years ago by the early radio
engineers who were really the first amateurs in the game.

Having got that off my chest, I can now finish the second half of a
bottle of Australian, Bantock Station, Special Reserve, Cabernet
Sauvignon Shiraz which I can thoroughly recommend.

Reg, G4FGQ

4495. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 08:07:07 UTC
From: Mexicana Aeronáutica y Spacia Administraci ón <webmaestro@masa.gob.mx>
Message-ID: <L6Rmf.30311$dO2.15837@newssvr29.news.prodigy.net>
Source record: 66692
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Walt Davidson wrote...
> On Sun, 11 Dec 2005 01:47:06 +0100, Paul Burridge
> <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:
>
>
>>On Sat, 10 Dec 2005 17:58:51 +0000, Walt Davidson
>><g3nyy@despammed.com> wrote:
>>
>>
>>>I wouldn't be surprised if it was illegal in the UK to even LOOK at
>>>the site! It's against the law here to possess racially inflammatory
>>>material. If it's in the browser cache on your PC, you possess it ...
>>>right?
>>
>>Aw, c'mon, Walt. We all know there are a lot of black people that
>>genuinely *don't* deserve to be denigrated in any way. But then again,
>>there are a lot that - simply by the way they act - do and this site
>>does a screamingly funny job of it - only to that particular sub-group
>>whom we've all encountered, mind, whether we choose to admit it or
>>not..
>
>
> Don't misunderstand me, Paul. I'm not objecting to the web site ...
> I'm simply commenting upon the oppressive, anti-free-speech laws in
> our politically-correct country! Orwell has been proved right about
> the "Thought Police".

What I wonder is the legality of that 1894 book "Ten Little Niggers"
on the site. If "hate speech" is ever criminalized in the USA, does
that mean all historical literature must be destroyed to comply with
the law? Keep in mind that schools have banned books by Mark Twain
because he uses the word nigger, but in a historical perspective his
use is not racist because that simply was the word used at the time.

Take "negro," for instance. We still have "United Negro College Fund"
and I think they recently opened a hall of fame for the "Negro League"
of baseball that operated in the first half of the 20th century before
sports were integrated. The word had no derogatory connotation then,
but today it is considered a racial slur as vile as "nigger." Even
the "Afro-American" they insisted replace negro is now taboo and we
are told we must call them "African-Americans." In a few years that
term will be forbidden, it will be considered racist to even mention
their race and that they are simply "Americans."

So when hate speech is outlawed, will all books written prior to the new era of enlightenment be burned? You mention Orwell, so I imagine history will be "rectified" to purge it of all things unorthodox.

Here's a relevant quote. The working title for the movie "Brazil" was "1984 1/2" so I suppose the Manifesto could be "1984 3/4":

"When someone interprets as derogatory almost anything that is said about him (or about groups with whom he identifies) we conclude that he has inferiority feelings or low self-esteem. This tendency is pronounced among minority rights advocates, whether or not they belong to the minority groups whose rights they defend. They are hypersensitive about the words used to designate minorities. The terms 'negro,' 'oriental,' 'handicapped' or 'chick' for an African, an Asian, a disabled person or a woman originally had no derogatory connotation. 'Broad' and 'chick' were merely the feminine equivalents of 'guy,' 'dude' or 'fellow.' The negative connotations have been attached to these terms by the activists themselves."
-- The Unabomber Manifesto; Paragraph 11

4496. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 08:47:24 UTC
From: Not Roger II <NotRoger@imitationdude.com>
Message-ID: <dngott$1hj$0@pita.alt.net>
Source record: 66693
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:81mnp15vlj99jaf5dv7lohfdr15m7l8dq3@4ax.com...
On Sun, 11 Dec 2005 01:47:06 +0100, Paul Burridge
<pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:

>On Sat, 10 Dec 2005 17:58:51 +0000, Walt Davidson
><g3nyy@despammed.com> wrote:
>
>>I wouldn't be surprised if it was illegal in the UK to even LOOK at
>>the site! It's against the law here to possess racially inflammatory
>>material. If it's in the browser cache on your PC, you possess it ...
>>right?
>
>Aw, c'mon, Walt. We all know there are a lot of black people that
>genuinely *don't* deserve to be denigrated in any way. But then again,
>there are a lot that - simply by the way they act - do and this site
>does a screamingly funny job of it - only to that particular sub-group
>whom we've all encountered, mind, whether we choose to admit it or
>not..

Don't misunderstand me, Paul. I'm not objecting to the web site ...
I'm simply commenting upon the oppressive, anti-free-speech laws in
our politically-correct country! Orwell has been proved right about
the "Thought Police".

73 de Wlat

--
Walt Davidson Email: g3nyy @despammed.com

....

What is "offensive"? Describe it. According to the hand-wringing Liberals,
"offensive" is anything that they, in their elitist mindset, disagree with
and deem to be politically incorrect. Enter the Thought Police.
And, for instance, when one or more of us stands up to the PC crowd we are
labeled as Right Wingers or, in their weak PC minds, as RightWing Religious
Nuts.
Oddly enough these Liberals are all about censorship.
I love it when some limp-wristed whiner comes along and mewls, "I find that
offensive." So what? Big fuc*ing deal! Who is he/she to determine what the
rest of us can or cannot say or even feel?
To date I have found nary a word in our Constitution that has anything to do
with protecting crybabies from being offended.
And as far as the web site in question goes, one need only not go there. Or

is that concept too simple for the Thought Police to grasp ?

--
Its not that Liberals are stupid. Its just that they know so much that isn't
so.

4497. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 09:03:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dngq0l$e9e$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66694
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

> Even
> the "Afro-American" they insisted replace negro is now taboo and we
> are told we must call them "African-Americans." In a few years that
> term will be forbidden, it will be considered racist to even mention
> their race and that they are simply "Americans."
==========

Americans have hijacked the name "Americans".

Cubans, Brazilians, Argentinians, Chilians, Mexicans, Canadians are
Americans.

Americans, as they call themselves, are just "USA Citizens".

And its time they realised just where they fit into the scheme of
things.

4498. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 10:32:07 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <gkvnp1hb1p7henaa8vmflc0jffn8go09je@4ax.com>
Source record: 66696
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On 11 Dec 2005 02:55:51 GMT, Lloyd <lloyd@no.spammmmm> wrote:

>it is *so* gay to type "hehe" and you are gloating to soon. it takes
>time for a complaint to a large isp to be read and checked and that
>much time hasnt gone by yet. k1man would know all of that without me
>having to tell him, but k1man is a great man who knows the difference
>between political incorectness and hate speech.

I still don't see how simply *satirizing* a limited segment of the
black population can engender "hatred" as such. I think you're just
projecting your own insecure, immature and baleful outlook onto the
world at large. Everyone else has to suffer just because you (a
self-appointed arbiter of good taste) have a screw loose.
Netcops! Who needs 'em?
--

"What is now proved was once only imagin'd" - William Blake

4499. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 10:33:31 UTC
From: Not Roger II <NotRoger@imitationdude.com>
Message-ID: <dngv4r$s71$0@pita.alt.net>
Source record: 66695
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dngq0l$e9e$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com...
> Even
> the "Afro-American" they insisted replace negro is now taboo and we
> are told we must call them "African-Americans." In a few years that
> term will be forbidden, it will be considered racist to even mention
> their race and that they are simply "Americans."
==========

Americans have hijacked the name "Americans".

Cubans, Brazilians, Argentinians, Chilians, Mexicans, Canadians are
Americans.

Americans, as they call themselves, are just "USA Citizens".

And its time they realised just where they fit into the scheme of
things.

We do. We are a world power and need not apologize to the Third World.

We are, for the most part, a moral and decent nation and the majority of our
citizens are a decent and moral group.

Your objection is what? That we call ourselves Americans?

This is yet more Political Correctness in the guise of being gramatically
correct.

Go cry somewhere else.

4500. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 10:52:20 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <au0op11per1e5jdq7t34cvp6vhnuitalh0@4ax.com>
Source record: 66697
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sun, 11 Dec 2005 08:39:34 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>Over the past 30 years, there has been an orchestrated "political
>correctness" campaign by leftists in the UK, conducted mainly through
>the media ... especially television broadcasting. It has been very
>sinister and very successful, with indoctrination of children from a
>very early age through left-orientated children's television series
>under the guise of entertainment. Mixed marriages, promiscuity,
>homosexuality, single-parent families and the "multi-racial society"
>have all been portrayed as the norm. One major broadcasting
>corporation, in particular, has been infiltrated by leftists who now
>have full control of the organisation and its broadcasting and
>recruitment policies. They operate a "positive discrimination" policy
>when filling vacancies, in favour of non-white and/or homosexual
>people. The whole situation is self-perpetuating, as there are now
>two generations of people (up to the age of about 35) who have been
>brought up to believe that this is the norm.

Well you're obviously talking about the BBC and I thoroughly agree
with your trenchant observations. However, it appears the attempted
brainwashing has failed, as recent surveys have shown that today's
children are actually *less* tolerant of other races than they were 20
years ago. Perhaps it's a backlash against the overtly obvious
'dysfunctionality is normal' propaganda spewed out by the Corporation
(at public expense, of course).
--

"What is now proved was once only imagin'd" - William Blake

4501. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 12:16:05 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <hu5op1hispglk5gbhh03cv2eun5njbc13r@4ax.com>
Source record: 66701
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sun, 11 Dec 2005 12:50:53 +0000, Walter Raleigh
<walterraleigh69nospam@hotmail.com> wrote:

>On Sun, 11 Dec 2005 12:01:01 +0000, Walt Davidson
><g3nyy@despammed.com> blurted forth into cyberspace:
>
>>There will always, eventually, be a popular backlash against any form
>>of extremism. The days of excessive political correctness, positive
>>discrimination, Ministries of Stupidity, etc are definitely numbered
>>now. Bodies like the Commission for Racial Equality will ultimately
>>be the authors of their own downfall. These things, like fashion, go
>>in cycles and history has a habit of repeating itself.
>
>An optimistic viewpoint. I really hope that you're correct Walt. This
>PC (Pro-chav?) world is getting more ridiculous by the day...

I believe Walt's right. History has shown it to be the case. The only
sad thing is why we humans can't seem to maintain a healthy balance; a
middle-of-the-road approach in all matters without this constant
vacillating from one extreme to the other. We're like recovering
alcoholics; we have to hit rock-bottom before we can hope to recover,
it seems. :-|

--

"What is now proved was once only imagin'd" - William Blake

4502. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 13:06:13 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051211080613.845$3K@newsreader.com>
Source record: 66698
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd <lloyd@no.spammmmm> wrote:
> On Sun, 11 Dec 2005 03:00:28 GMT, Mexicana Aeron&#65533;utica y Spacia
> Administraci&#65533;n <webmaestro@masa.gob.mx> wrote:
> >
> > I see a reference to current standards of Usenet and Internet
> > community, and since anything goes on the Internet, it niggermania.com
> > is not in violation of TOS. How exactly did this website "disrupt"
> > this newsgroup?
>
> you cant read real good. those things were about newsreader.com and
> not niggermania.com which is a hole different subject. moparholic was
> being told about his isp at newsreader.com and everyone but you
> figured that out.
>
Hey fucknut, newsreader.com is not my isp. Pull your head out of your
lardass.

4503. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 13:09:35 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnh8c3$j9l$1@news6.svr.pol.co.uk>
Source record: 66699
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:5v4op1t9672ed489hk38dsebnqok6hij4t@4ax.com...
> On Sun, 11 Dec 2005 11:52:20 +0100, Paul Burridge
> <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:
>
> >However, it appears the attempted
> >brainwashing has failed, as recent surveys have shown that today's
> >children are actually *less* tolerant of other races than they were 20
> >years ago.
>
> Fortunately, young people always rebel against the beliefs and actions
> of their elders.

I would say its more the perception that these minority groups seem to get
more help in many cases to their indiginous white counterparts and they have
this "racial discrimination" cry at them whenever whites repremand or
disagree or voice their own opinion. This rarely used to happen 20 years ago
and we all just got on with it. Nowadays though youngsters and many adults
are fed up with being branded Racist by liberal do gooders and are sick and
tired of being put second place abouve these immigrants/non-indiginous
groups. You can only take so much before you (white people) feel you are the
second class citizen and have to bow to their beliefs and religions
otherwise your branded racist or bigoted.
Then theres the black gangs and the intimidation felt by many which was also
hardly heard of 20 years ago. Also, as said by Enoch Powell many years ago,
forcing different cultures to live with one another will eventually lead to
rivers of blood frowing in the streets. Of course he was branded a screaming
Racist but much of what he warned of is there.

> >Perhaps it's a backlash against the overtly obvious
> >'dysfunctionality is normal' propaganda spewed out by the Corporation
> >(at public expense, of course).
>
> There will always, eventually, be a popular backlash against any form
> of extremism. The days of excessive political correctness, positive
> discrimination, Ministries of Stupidity, etc are definitely numbered
> now.

Lets hope so...

Bodies like the Commission for Racial Equality will ultimately
> be the authors of their own downfall. These things, like fashion, go
> in cycles and history has a habit of repeating itself.

As many black and asian people "Use" racism for their own goals, eventually the "cry wolf" scenario will be understood and maybe those who scream they have been racially abused will be found out that they were targeted by something that they did or said rather than the colour of their skin. They will *always* call the race card though. Its a shame it appears to be a one way street though, try complaining that youve been racially abused by a black or asian and nothing seems to happen. Other way round you get arrested and thrown in a cell whether its proved or not.

Its also a well known fact that many of these racism cries like the one to ban Christmas and to call it winterval in Birmingham was laughed at by blacks and asians who had no problems with it at all but it was liberal busy bodies imposing what they thought would constitute bad feeling and upset Jews/muslims etc. Similarly with the St George Flag, these same liberal do gooders accuse it of being a racist flag and try to remove it wherever it is never mind its the Flag of England and banning it only fuells the hatred towards other races even though its not the blacks/asians who are bothered by these things, its the doo gooder busy bodies who look for racism everywhere and impose their beliefs on everyone causing it rather than subduing it.

England is still a mainly white Christian Country.... why dont these idiots remember this and stop pandering to the Libral perceived wishes of the immigrants and those from different races who were born here. They try to make us feel that "English and England" are dirty words.

> 73 de Wlat
>
> --
> Walt Davidson Email: g3nyy @despammed.com

There will always be an England.... oh and a Wales ;o)

Regards,
Graham

--

_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4504. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 13:13:05 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051211081305.366$el@newsreader.com>
Source record: 66700
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Mexicana_Aeron&#65533;utica_y_Spacia_Administraci &#65533;n <webmaestro@masa.gob.mx>
wrote:
> Lloyd wrote...
> > On Sun, 11 Dec 2005 03:00:28 GMT, Mexicana Aeron&#65533;utica y Spacia
> > Administraci&#65533;n <webmaestro@masa.gob.mx> wrote:
> >
> >>I see a reference to current standards of Usenet and Internet
> >>community, and since anything goes on the Internet, it niggermania.com
> >>is not in violation of TOS. How exactly did this website "disrupt"
> >>this newsgroup?
> >
> >
> > you cant read real good. those things were about newsreader.com and
> > not niggermania.com which is a hole different subject. moparholic was
> > being told about his isp at newsreader.com and everyone but you
> > figured that out.
> >
> > Now take your fake mexican headers as a example. I bet progidy
> > wouldnt like them at all.
>
> But I don't care what they don't like, ISPs are a dime a dozen and I can
> easily find another one. Actually, I'm inclined to subscribe to Altopia,
> they fiercely protect their customer's identities and really have no TOS
> other than turning over customer records if subpoenaed by an American
> court. Threatening to kill people is a crime and would qualify, but
> offending people is perfectly legal under U.S. law.
>
Don't waste your money on altopia, Caputo has about three days retention on
his servers. Quite possibly the worst nsp on the market.

4505. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 13:24:07 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <2q9op1pscnfevldfhmdvvfm0dk3bhb3nrp@4ax.com>
Source record: 66703
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,uk.media.radio

On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
<magnum@NOSPAMmag2781.freeserve.co.uk> wrote:

>England is still a mainly white Christian Country.... why dont these idiots
>remember this and stop pandering to the Libral perceived wishes of the
>immigrants and those from different races who were born here. They try to
>make us feel that "English and England" are dirty words.

Yeah, the Today programme on Radio 4 is a peach on St. George's Day.
Those 'presenters' (read "sucklers at the teat of the BBC Milch Cow)
never miss the opportunity to rubbish and ridicule the event. In
recent years, they have (not surprisingly) tried to totally redefine
it to their own twisted standards. One year they even invited
listeners to come up with a new design for the English flag! Bastards.
--

"What is now proved was once only imagin'd" - William Blake

4506. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 14:19:34 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <ufcop15oiemen6199pcaamfjut87qd6r24@4ax.com>
Source record: 66702

On Sun, 11 Dec 2005 06:06:08 GMT, Owen Duffy <owen@no.where> wrote:

>On Sun, 11 Dec 2005 05:39:27 +0000, Wes Stewart <*n7ws*@ yahoo.com>
>wrote:
>
>
>>I wasn't going to go that far, and I realize it's probably not common
>>in ZL but I've bought lengths of LDF5-50 at ham flea markets. The
>>last purchase, claimed to be about 10 meters worth, but by my
>>estimation at least twice that long, and new and unused, cost me $10
>>U.S.
>>
>>Most of this stuff is leftover or removed from commercial two-way or
>>cell phone use and shows up all of the time. LDF4-50 is even more
>>common. I often buy short pieces that have been cut down, just for
>>the connectors that are still on one end.
>>
>>I find it curious that Andrew cable is seen so often at these events
>>and yet I've -never- even seen a piece of Davis cable, dispite the
>>claims that miles of it are in commercial use.
>
>I agree with Ian's comments, the larger sizes are often available here
>as they are less attractive to hams. But if you buy 3 or 4 lengths of
>LDF5 or LDF6 and use connectors to join them, you will run into big $
>unless the connectors come very cheap.

I have a ham friend who uses long runs of coax to his several towers.
He is a big gun on 80 and 160 meters, so this mainly applies at m-f to
h-f. He uses a lot of LDF5-50 that he obtains in shorter pieces.

His technique, as he briefly described it to me, is to -not- use
connectors but splice the lengths directly. The center conductor on
these cables is hollow, so he inserts a short length of brass or
copper into the ID and solders it in place.

I don't know whether he adds any insulation next or not, but I would
envision injecting some low-expansion spray foam later. He then wraps
the outer conductor with brass or copper foil and solders this in
place. (Here is where I would inject the foam.)

This is then wrapped with tape for protection. I would use a double
layer of #27 3M tape with an overwrap of plastic electrical tape.

To strengthen the joint mechanically, he straps on a length of steel
angle using stainless hose clamps. For lines on or in the ground this
stays in place. For runs up the tower, after the line is in place,

strapping to the tower is sufficient support.

4507. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 14:28:35 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <6s9op1h1v0irlchdndov8g9rd452vauvsm@4ax.com>
Source record: 66704
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sun, 11 Dec 2005 07:50:12 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 10 Dec 2005 21:26:09 -0500, nevermore
><stevencanyon@y***hoo.com> wrote:
>
>>Good, good, if the leftist morons in America, Europe, and Russia, and
>>the terrorists in the Middle East didn't hate the USA, I'd wonder what
>>we were doing wrong.
>
>Yes, yes ... everyone's out of step except George Dubya's Yankee
>Doodle Dandies.
>
>I suppose we should be thankful for "friendly fire"!
>
>73 de Walt

Gosh, Walt, you seem to imagine that most of the people in the USA
gave a rat's ass what you leftist loonies across the Atlantic think of
us.... Most of us don't even care what the leftists loonies here
think of us were it not for their entertainment value. Indeed, the
leftist element in the USA is totally impotent and that is documented
by the fact that an overwhelming percentage of the Democratic party is
distancing themselves from loons like Howard white-flag Dean
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4508. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 14:28:35 UTC
From: nevermore <stevencanyon@y***hoo.com>
Message-ID: <hpaop1172ltm79i5n0os0t6503tdmht6sq@4ax.com>
Source record: 66705
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sun, 11 Dec 2005 07:51:22 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Sat, 10 Dec 2005 21:26:07 -0500, nevermore
><stevencanyon@y***hoo.com> wrote:
>
>>hey, thanks, but we can take care of ourselves... and given the
>>state of the rest of the world, it's a good thing that we can.
>
>"Pride comes before a fall."
>
>73 de Wlat

<LOL> I love it when you leftist morons make predictions like
that....
--

If Nevermore tries paying cap gains with a 1040, he'll
be in jail soon enough.
--Zepp Jamieson, Dec 3, 2005
http://groups.google.com/group/alt.atheism/msg/30fdaff423e2029b?hl=en&

Jamieson, obviously never had any cap gains to report, because
<LOL> line 13 on the 1040 form, under income, as shown below, is
clearly where you report your capital gains.

http://www.irs.gov/pub/irs-pdf/f1040.pdf

4509. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 14:49:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <x%Wmf.30331$7h7.29083@newssvr21.news.prodigy.com>
Source record: 66706
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Paul Burridge wrote:
> The only
> sad thing is why we humans can't seem to maintain a healthy balance; a
> middle-of-the-road approach in all matters without this constant
> vacillating from one extreme to the other.

If the pendulum didn't swing, the clock wouldn't work.
--
73, Cecil http://www.qsl.net/w5dxp

4510. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 14:56:13 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <h6Xmf.30332$7h7.14674@newssvr21.news.prodigy.com>
Source record: 66707

Owen Duffy wrote:
> LMR400: 300' at 14.2MHz with VSWR=1.5, loss~=1.5dB

Open-wire line: 300' at 14.2MHz with VSWR=1.5, loss~=0.225dB
Costs about 16 cents/ft if one rolls one's own.
--
73, Cecil http://www.qsl.net/w5dxp

4511. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 14:58:16 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <9vEHGWNI6DnDFALT@ifwtech.co.uk>
Source record: 66709

Wes Stewart wrote:
>>I agree with Ian's comments, the larger sizes
[of hardline]
>>are often available here
>>as they are less attractive to hams. But if you buy 3 or 4 lengths of
>>LDF5 or LDF6 and use connectors to join them, you will run into big $
>>unless the connectors come very cheap.
>
Generally the same applies to the connectors as to the cable itself - the surplus prices are much lower than the new prices, and larger sizes may even be cheaper.

However, I do agree that you don't need connectors in order to make a splice in a static installation. This technique makes a solid splice, with a low SWR even at 432MHz:

>I have a ham friend who uses long runs of coax to his several towers.
>He is a big gun on 80 and 160 meters, so this mainly applies at m-f to
>h-f. He uses a lot of LDF5-50 that he obtains in shorter pieces.
>
>His technique, as he briefly described it to me, is to -not- use
>connectors but splice the lengths directly. The center conductor on
>these cables is hollow, so he inserts a short length of brass or copper
>into the ID and solders it in place.
>
And for the smaller sizes with a solid center conductor, splice with a short length of hobby brass tuning over the outside.

>I don't know whether he adds any insulation next or not, but I would
>envision injecting some low-expansion spray foam later.

The foam is mostly empty space anyway, so even at UHF an inch or so will hardly be missed.

>He then wraps the outer conductor with brass or copper foil and solders
>this in place.

In some sizes, a slit length of copper water pipe can work too.

>This is then wrapped with tape for protection. I would use a double
>layer of #27 3M tape with an overwrap of plastic electrical tape.
>
>To strengthen the joint mechanically, he straps on a length of steel
>angle using stainless hose clamps.

Yup, all of the above. It works fine.

The overall conclusion is that - both physically and financially - large hardline is nowhere near as 'hard' as most people think.

BTW, I do have one genuine Andrew splice for LDF5-50, which I'm hoarding for some undefined future need. It's truly a thing of wonder... especially the insert that connects the two hollow center conductors. One end screws in with a tapered variable-pitch thread, so the other end has to have a tapered variable-pitch *left-hand* thread. Only a CNC programmer with far too much time on his hands could have thought of that.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4512. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 15:06:10 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <753dc$439c4064$97d56a33$14444@ALLTEL.NET>
Source record: 66708
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Tell you what, don't comment on George Bush and we will leave your
bisexual,cheating ,scumbag prince alone.

In fact we won't mention the whole low IQ royals that live on the dole...

>"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:785op1hamdv09vnnf86vii55k6s8a81upl@4ax.com...
> On Sun, 11 Dec 2005 05:33:31 -0500, "Not Roger II"
> <NotRoger@imitationdude.com> wrote:
>
> >We are, for the most part, a moral and decent nation and the majority of
our
> >citizens are a decent and moral group.
>
> Agreed. Except, of course, for the minority who suceeded in voting
> the George Dubya regime into power at the last "election".
>
> 73 de Wlat
>
> --
> Walt Davidson Email: g3nyy @despammed.com

4513. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 15:12:51 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11pogdplq06eob0@corp.supernews.com>
Source record: 66710

Hardline is hard to beat. (pun intended) Of course, cost and performance
are to be compared.

As another data point: a hardline run of about 400 feet was measured
when installed some 30 years ago (flat on the ground). When making a second
run of the same size hardline over the same path four years ago (Heliax -
part number had changed) both cables were measured for return loss and for
impedance bumps. The two cables were indistinguishable and the measurements
were well within measurement uncertainties from the measurements of 30 years
ago.
The older run was connected to a rotatable 3.8 MHz/3.5 MHz dipole and
the newer run was connected to a large LPDA that starts at 6 MHz on the
basis that surely the older run "should" have more attenuation - though a
difference was not measured.

I echo the point made by Ian about hardline being hard to beat and the
worth (for the runs involved) to find same. Do it right - do it once.

I am shocked to discover that as often as I have used Bury-Flex to
connect things, I have not measured a piece. That needs to go on my list of
things to do! If Roy measured a piece, one can take to the bank what he
measured.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:Y3eOgQEnOpmDFAmG@ifwtech.co.uk...
> Ross Biggar wrote:
> >I am putting up a second tower , but it will be about 200feet from the
shack
> >and about 70feet high.
> >What coax is recommended to reduce loss to a minimum,and to feed a
multiband
> >beam with a 2kw amplifier.
> >Hard line excepted due to cost.
>
> At HF and with low SWR, anything of RG213 size or larger should be OK as
> regards cable heating... but in reality you are not aiming to reduce the
> losses "to a minimum". You're actually making a three-way balance
> between losses, availability and cost.
>
> (Re availability and cost: people in the USA should note that Ross is in
> New Zealand. Coax is heavy, and international shipping costs are

> horrendous, so Ross has a much narrower range of options than you do.)
>
> "Cost" will also include the cost of repairs and replacement - and this
> can be a big consideration with a long run of cable because it's
> extremely important to keep the jacket free from any damage where water
> can get in. Capillary action can suck water into the braid over very
> long distances from the initial location of the damage, and corrosion of
> the braid can drastically increase the losses. So even minor physical
> damage can have big electrical consequences, and can effectively destroy
> a long section of line.
>
> I'm in a similar situation here, with a new tower and LF verticals. The
> cables will have to run a long distance over rough land covered with
> thorns and sharp stones... and it's usually wet too. For all those
> reasons, I am not going to use braided coax, but will try *very very*
> hard to locate some surplus hardline.
>
> The advantage of foam-filled hardline is that it's largely immune to
> minor damage from the outside. If the plastic jacket is cut or even
> removed completely, it doesn't matter at all because you still have
> solid copper to keep the water out. And even if you take a slice off the
> copper sheath with the mower (BTDT), water will not migrate along the
> inside because the closed-cell foam is firmly bonded to the inside
> surface of the sheath.
>
> You certainly don't have to buy hardline at new prices - though even
> there you might be pleasantly surprised (for example there's an outlet
> in VK-land whose prices are very reasonable). Your options will depend
> on what's available in ZL, and to find out you may have to tap a few
> contacts.
>
> For example, in the UK there's a lot of surplus hardline is coming out
> of cellular, broadcast and other VHF/UHF/microwave sites as they are
> being upgraded to the next generation. A lot fo this goes straight to
> scrap copper, but some gets diverted into the surplus market. Short
> lengths appear quite often at radio flea markets ("rallies"), and if you
> ask, the guys generally have much longer lengths back home at much lower
> prices.
>
> (In the USA they also have aluminium-jacketed cable TV hardline. It
> doesn't exist in the UK, but if it's relevant in ZL there are people in
> this newsgroup who know about it.)
>
> Crazy as it may sound, the larger sizes of hardline can be cheaper on
> the surplus market than the more popular "half-inch" size. The larger
> cables are more difficult to transport and less convenient to handle, so
> there are fewer buyers and that drives the price down. Even so, 2-3
> people can handle the lengths you are considering, and in a fixed
> installation you only have to lay it once... and then you really could
> say you've reduced the losses "to a minimum".

>
>
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

4514. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 15:32:13 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051211103213.451$vn@newsreader.com>
Source record: 66711
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Lloyd <lloyd@no.spammmmm> wrote:
> On 11 Dec 2005 13:06:13 GMT, Steveo <moparholic@hotmail.com> wrote:
> >
> > Hey fucknut, newsreader.com is not my isp. Pull your head out of your
> > lardass.
>
> pick at nits, dimwit.
>
You make a lousy net-nanny, lardass.
>
> newsreader.com is your usp and your headers prove
> it. your usenet service provider is what was being talked on. better
> now?
>
It has been my NSP for about nine years or so, when are you going to have
my account nuked, fucktard netkkkop?

4515. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 15:55:04 UTC
From: Charlie <charlie@play.com>
Message-ID: <11poiv0fb65aqa6@news.supernews.com>
Source record: 66712

Wes Stewart said:
>I find it curious that Andrew cable is seen so often at these events
>and yet I've -never- even seen a piece of Davis cable, dispite the
>claims that miles of it are in commercial use.

It might be that the BuryFlex is still in use and has not been removed from service as the Heliax you cite has been. After all Davis BuryFlex 9914 does have a warranted - 20 year service life -

Is there any other coax with such a warranty?

Charlie

4516. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 16:48:27 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <OewbK3TbhFnDFAPU@ifwtech.co.uk>
Source record: 66713

Charlie wrote:
>
>-ps How many times do you think Davis has tested their 9914 in the past
10+ years?

Before we go much further, is there an engineering data sheet on
Bury-Flex? I couldn't find one on the Davis RF site.

In particular, what is the rated minimum bending radius?

Coaxial cables with braid-over-foil shielding have a generic problem
that if they're bent too sharply, the foil will tear into separated
segments each about an inch long. The cable then relies on the braid for
overall shield continuity. It will still function, especially at low
frequencies, but there isn't much contact pressure to maintain the
continuity between the braid and the foil.

If a cable had been treated in this way, it's not hard to imagine that a
precision measurement at 450MHz would reveal small jumps in the loss and
SWR when the cable is flexed.

But this is NOT something you'd ever notice in a normal amateur station
operation. Even when I was using braid-over-foil coax with 1.5kW at
432MHz, and monitoring the SWR continuously, I never noticed any major
jumps when rotating the antenna. The break-up of the foil only came to
light after the cable had failed for an unrelated reason, and was slit
open for a post-mortem.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4517. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 17:22:16 UTC
From: Greg Ordy <ordy@seed-solutions.com>
Message-ID: <cfZmf.2512$nm.660@newsread2.news.atl.earthlink.net>
Source record: 66714

Here are my personal experiences and observations with "BuryFlex".

Back in the 90's, I went through a period of station upgrade,
followed by a period of antenna experimentation, mainly with lower
band receiving antennas. To support all of that work I purchased a few
thousand feet of coaxial transmission line, in a wide range of types
and brands.

For my "main" lines, which needed to be buried to make it
from the house, under the lawn, to the "antenna fields", I chose
BuryFlex. I also used it for my single tower, and around the
rotator. The buried runs are approximately 150 and 175 feet long.

For other purposes, such as test antennas that I would
put up for a few weeks, to arrays of those antennas, I would use
BuryFlex, RG-213, RG-8, RG-8X, RG-58, all sort of stuff. I even
had some 75 Ohm RG-11 which was used mainly as "phasing lines"
in delta loop arrays, and series matching sections.

Before all the dust had settled, I had probably installed
well over 100 UHF coax connectors on cables of all sorts of
lengths, from 1 foot to about 250 feet.

Mechanically, I found BuryFlex to be very rugged, and
whenever I have had the opportunity to check out cables in the
field, including buried, they are in excellent condition. It
does have a high degree of flex, and a small turning radius.
Around the rotator, it worked very well, and after a few
years of turning, it showed no signs of wear at all.

As far as attaching coax connectors, I did find that the
stranded center conductor was a little too wide for a few
of the various connectors I would try to use. I tended to
pick up packs of 10 to 25 male connectors at hamfests and
from the Internet, and they probably covered the range of
name brand, strange brand, gold pins, silver pins, Teflon
insulator, and on and on.

I found that about 10% of the range of connectors
I had would not fit over the twisted BuryFlex center conductor.
Initially, I cut two of the stranded center conductors to reduce
the diameter, but as I accumulated a range of connectors,
I just learned which connectors to avoid when putting ends
on BuryFlex.

As part of my antenna experimentation, I would often
be out in the field, right at the antenna, with a typical

antenna analyzer, such as the MFJ-259, 259B, 269, AEA HF-CIA,
and the Autek RF-1. I would then come back inside
the house, where I had a computer next to the radio. I had
a serial interface for the AEA HF-CIA, so I could capture
SWR graphs on the computer, for a whole range of purposes.

At some point, I picked up a laptop computer, which
made it easy to record antenna analyzer output data right in the
field, next to the antenna, before I entered the BuryFlex
runs back to the house.

An ideal lossless 50 Ohm transmission line should repeat
the SWR found at its load end at its input. The impedance will
be transformed as a function of the length of the cable, but
the SWR should remain the same. Of course we don't have
ideal lines out in the field, we have real lines, with loss.
The impact of the loss is to reduce the SWR at the input (station side)
of the line. In many typical HF situations the reduction is
small.

I noticed that when I overlaid the SWR graphs in the
field on top of the SWR graphs made inside the house, they
did not follow the expected relationship, which is to say the same
general shape, with the inside values slightly lower due
to loss on the cable between the two points.

In some cases, the SWR would rise - I admit, it was
a small amount, but that made no sense to me.

I then performed a test which I must confess I
had not done before. I put a 50 Ohm load on the end of a
length of BuryFlex, and a typical antenna analyzer on the other
end, and swept the frequency across the HF range, perhaps
1 to 30 MHz. I expected to see a flat SWR of 1.0, since
I had a 50 Ohm load, 50 Ohm cable, and a 50 Ohm analyzer.

Well, with BuryFlex, the SWR would swing, as a
function of frequency, between 1.0 and a high of 1.3.

By this time, most of the coax I had once used out
in the field had been rolled up, and stored within
some metal cabinets in the garage. I went and grabbed an
armful of assorted cables, from high quality RG-213, to
pretty darn cheap RG-58 that I used in receiving antenna
arrays. All other 50 Ohm cable, when terminated with
a 50 Ohm load, had a flat sweep across the HF range.

So, something about that BuryFlex was different.
I found all of the lengths that I had rolled up, and
all exhibited the same behavior. I did wonder if I
got a "bad batch", but I do believe that I was measuring
across a set of cables that I had purchased over
a period of perhaps 3 years, and I assumed that meant

that I was looking at different batches and runs and
seasons.

I wasn't sure what was going on, and I wasn't going
to replace that buried BuryFlex, but I stopped using more of it,
especially if I was trying to make useful measurements.
The cable obviously "worked", since I had been pumping
1500 watts through it for year, from 160 meters to 6 meters.

As a few more years passed, and I ended up
interested in higher quality impedance measurements,
as part of understanding and building phased vertical
arrays. I accumulated even more impedance measuring
devices, including old Gen-Rad and Boonton boat anchors.
I did end up with an N2PK VNA, which I believe has
near professional/lab accuracy.

A year or so ago, I got curious about this whole
area again, and now that I had some good quality
measurement equipment, I grabbed some different cables
from the cabinet, and put on a 50 Ohm load, and swept
them from 1 to 50 MHz. Now, what I was really
measuring was the complex reflection coefficient, which
could be converted, by formula, to complex impedance,
SWR, return loss, and all sorts of useful quantities.

When I displayed the data on a Smith Chart, an
interesting pattern emerged. The other 50 Ohm cables spiraled
around the 50 Ohm load. A 75 Ohm cable (with a 50 Ohm load)
also showed a spiral, but it was centered higher up the resistance
axis. The BuryFlex, however, had a spiral which was
centered under 50 Ohms.

Now I'm no Smith Chart expert, especially when it
comes to combining data from different Zo cables, but especially
when comparing BuryFlex to other 50 Ohm cables, to 75 Ohm
RG-11, the pattern is pretty clear.

My conclusion was that the BuryFlex I had here had
a characteristic impedance lower than 50 Ohms, perhaps around 45 Ohms.

After the messages in recent days about BuryFlex,
I went out to the shop this morning, and again grabbed two
different rolls of BuryFlex, a few typical 50 Ohm cables,
and some 75 Ohm RG-11. I wanted to see if I could
duplicate the measurements. All of these cables are a few
years old, and some have been used quite a bit. In other
words, I am not trying to work with new cable right off
of a roll.

I got the same results that I had seen in the
past. I captured two Smith Charts showing BuryFlex versus
other 50 Ohm cable, and some 75 Ohm RG-11. The test

scenario is a random length of cable (more than a few
feet, less than 100), with a 50 Ohm load, and a sweep
from 1 MHz to 50 MHz with 100 KHz spacing. If I were
willing to terminate the BuryFlex with a variable noninductive
resistor, I could probably nail down the actual cable
impedance.

I put the two Smith Charts on a web page so that
they could be inspected by all interested parties.
The URL is:

http://www.seed-solutions.com/gregordy/Amateur%20Radio/Experimentation/buryflex.htm

I certainly can be interpreting this data incorrectly,
and please feel free to correct me if you believe that
I've come to the wrong conclusion.

I do not have an opinion about the "loss" of BuryFlex.
I could make return loss measurements, but for those to
have meaning, I would need to unroll the cable, and measure the
length, and since it's 10 degrees F outside, with 18 inches
of snow, and more coming down, I'm not quite that motivated.
My VNA also stops at about 50 MHz, and the frequency first
mentioned was quite a bit higher (400 MHz). The initial report
also talked about loss as a function of coiling and bending,
which can complicate the test scenario.

For me, and my test equipment here, BuryFlex does
not have the characteristics of any other "50 Ohm" cable
I have measured. I believe that my conclusion that it is more
like 45 Ohm cable as opposed to 50 Ohm cable is correct -
again, for the samples I have here. I have found it to be
mechanically excellent and very rugged. Some coax connectors
don't quite fit over the center conductor.

I am quite suspect, however. I encourage
anybody with access to the cable and appropriate test
equipment to confirm the loss measurements, since I trust
the source of the original claim. Because I don't believe the
50 Ohm specification, I guess it's easier for me to believe that
the loss specification is incorrect too.

If you want to know if your cable is like mine - that's
easy - terminate a length with a good quality 50 Ohm resistive load,
and sweep the frequency while watching the SWR. My BuryFlex
bounces up and down.

Greg Ordy, W8WWV

4518. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 17:35:38 UTC
From: Dan Richardson <>
Message-ID: <bqoop1508laak6ds9mpohf3nrh8t843iko@4ax.com>
Source record: 66715

On Sun, 11 Dec 2005 17:22:16 GMT, "Greg Ordy"
<ordy@seed-solutions.com> wrote:

> Here are my personal experiences and observations with "BuryFlex".

EXCELLENT REPORT!

Thank you,

Very 73
Danny, K6MHE

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

4519. Re: Free speech

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 18:06:07 UTC
From: Landshark <s3buell@sbcglobal.net>
Message-ID: <jUZmf.35796$Zv5.13409@newssvr25.news.prodigy.net>
Source record: 66716
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Dee Flint" <deeflint01@comcast.net> wrote in message
news:jN2dnUzzCfMEbQfenZ2dnUVZ_sydnZ2d@comcast.com...
>
> "nevermore" <stevencanyon@y***hoo.com> wrote in message
> news:r6qlp1l9asos3l9kov8nl76t3i3stpmh2s@4ax.com...
>> On Sat, 10 Dec 2005 09:31:59 -0500, "Dee Flint"
>> <deeflint01@comcast.net> wrote:
>>
>>>
>>>"Walt Davidson" <g3nyy@despammed.com> wrote in message
>>>news:1q3lp11g12rg70qfj7qr3jpffcrhdrdkil@4ax.com...
>>>> On Fri, 9 Dec 2005 18:19:18 -0500, "Dee Flint"
>>>> <deeflint01@comcast.net> wrote:
>>>>
>
> [snip]
>
>> That obviously eliminates any restrictions an ISP might put into their
>> usage agreements from "breaching the First Amendment. I'm always
>> amazed at the number of people who don't understand the Bill of
>> Rights. Walt must have been asleep in the back of the room when his
>> teacher talked about the Constitution.
>>
>
> Walt's in the UK. I seriously doubt if they teach the US Constitution
> there. They may do a brief outline just as we get a brief summary of
> Britain's form of government but it's unlikely they would go into any
> depth on it.
>
> Dee D. Flint, N8UZE

Granted the fact in their schools, they may just brush over it in
normal curriculums, that still doesn't eliminate him from learning it on his
own or in college.

Landshark

--
Kindness is the language which the deaf
can hear and the blind can see.

4520. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 18:19:57 UTC
From: mcalhoun@ksu.edu
Message-ID: <dnhqkd$3k9@unix1.cc.ksu.edu>
Source record: 66717

>>I have no trees, streelamps, telephone poles, or anything higher than a
>7 foot trailer. That was why I was considering a vertical. For
>practical purposes anything higher than 40 feet is forbidden and 25
>>foot is as high as I practically dare do.

>....[snip]....

Be patriotic: erect a 33-foot metal-pipe flagpole WITH pulley and rope.

Set the bottom of the pole on a strong/thick soda-pop or beer bottle
which is restrained to/in the ground somehow
(I've buried a concrete block -- with its holes
vertical -- until its top is even with the ground
surface, put the bottle in one of the holes, and
filled the extra space with dirt),
mount it firmly to (but insulated from) the top of your trailer, and
feed it with coax
(connect the coax shield to a ground rod driven through
the other hole in the concrete block, the coax center
wire to the base of the tower -- I mean flagpole --
and put a 50-100 Kohn resistor across the connection).

It'll work quite well by itself on 40 and 15 meters, and if you use an
"antenna tuner", you should get acceptable results on 20 and 10 meters
(and higher). With an extra inductor at the base, it should give
passable results on 80 and maybe even some results on 160.

Let your neighbors see you driving in several additional ground rods and
laying lots of radials (although I'm usually lazy and just use the wires
to the ground rods) "to extend lightning protection".

Don't forget to fly a flag occasionally! That's part of the disguise.
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4521. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 18:21:58 UTC
From: mcalhoun@ksu.edu
Message-ID: <dnhqo6$3mh@unix1.cc.ksu.edu>
Source record: 66718

>> Was just wondering if coax feed with balun at centerpoint would be better
>> than ladderline feed with balun at tuner output (and no, my tuner doesn't
>> have an internal balun).

>Tuner-balun-ladder-antenna is better. Lower losses if
>the tuner is doing anything, i.e. antenna is not 50+j0 ohms.

Won't ChokeBalun-BalancedTuner-ladder-antenna at least as good
and maybe even better?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4522. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 18:47:31 UTC
From: mcalhoun@ksu.edu
Message-ID: <dnhs83$4b8@unix1.cc.ksu.edu>
Source record: 66719

>> Was just wondering if coax feed with balun at centerpoint would be better
>> than ladderline feed with balun at tuner output (and no, my tuner doesn't
>> have an internal balun).

>Tuner-balun-ladder-antenna is better. Lower losses if
>the tuner is doing anything, i.e. antenna is not 50+j0 ohms.

Since you are considering using ladder-line, you must be thinking a little
about efficiency; wouldn't ChokeBalun-BalancedTuner-ladder-antenna be at
least as good and maybe even better?

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4523. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 19:23:22 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11pov576urkto53@corp.supernews.com>
Source record: 66720

I for one am sick and tired of having to worry all the time about who I'm going to offend by what I am saying. I think people need to grow up, lighten up, get a thicker skin, and just get over themselves.

There are so many laws on the books now, that everything we do, in every moment of the day is probably breaking some law and offending some group.

People are different in this world. That's just the way it is.

I'm sorry if your particular race was screwed over 150 years ago, exterminated 60 years ago, or your land was taken away and you were forced to become members of a society you didn't want to be part of.

There comes a time when you just have to let it go.

If you don't like the way things are, just wait a couple hundred years. I'm sure it will all be different, and your particular group will at last be glorified and vindicated.

History has shown that no society/group/country is around for that long anyway.

Rod

4524. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 19:37:27 UTC
From: Landshark <s3buell@sbcglobal.net>
Message-ID: <Xd%mf.28323$BZ5.103@newssvr13.news.prodigy.com>
Source record: 66721
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.politics.liberalism

"Lloyd" <lloyd@no.spammmmm> wrote in message
news:701733.8F8789@tarrnews.net...
> On 11 Dec 2005 15:32:13 GMT, Steveo <moparholic@hotmail.com> wrote:
>> Lloyd <lloyd@no.spammmmm> wrote:
>> > On 11 Dec 2005 13:06:13 GMT, Steveo <moparholic@hotmail.com> wrote:
>> > >
>> > > Hey fucknut, newsreader.com is not my isp. Pull your head out of your
>> > > lardass.
>> >
>> > pick at nits, dimwit.
>> >
>> You make a lousy net-nanny, lardass.
>> >
>> > newsreader.com is your usp and your headers prove
>> > it. your usenet service provider is what was being talked on. better
>> > now?
>> >
>> It has been my NSP for about nine years or so, when are you going to have
>> my account nuked, fucktard netkkkop?
>
> so far you arent doing anything illegal or dispeakable like N9OGLs
> sight or the niggermainia sight is doing so there isnt any reason to.
> but I am not the only one. you crossposted to the cb and uk groups
> and everybody knows that they are full of netcops so you are not out
> of the weeds yet. I have trimed the groups back for you so maybe
> they wont notice you. you are welcome.

Very astute on your part.............. Except this whole thread started
when N8WWM posting with Moparholic@Hotmxxl.com aka Steveo
in Rec.Radio.CB screen nic, you have been duped, keep up the great
work though LMAO!!!!

Landshark

--
Some of them are living an illusion
Bounded by the darkness of their minds,
In their eyes it's nation against nation,
With racial pride, sad hearts they hide,
Thinking only of themselves,
They shun the light,
They think they're right
Living in the empty shells.

4525. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 19:45:59 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <0f0pp1p0vsi6uf4r8j1f9uo414do8nucma@4ax.com>
Source record: 66722

On Sun, 11 Dec 2005 14:56:13 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> LMR400: 300' at 14.2MHz with VSWR=1.5, loss~=1.5dB
>
>Open-wire line: 300' at 14.2MHz with VSWR=1.5, loss~=0.225dB
>Costs about 16 cents/ft if one rolls one's own.

... or unrolls it as the case may be!
--

4526. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 19:48:28 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051211144828.600$Q2@newsreader.com>
Source record: 66723
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.politics.liberalism

Lloyd <lloyd@no.spammmmm> wrote:
> On 11 Dec 2005 15:32:13 GMT, Steveo <moparholic@hotmail.com> wrote:
> > Lloyd <lloyd@no.spammmmm> wrote:
> > > On 11 Dec 2005 13:06:13 GMT, Steveo <moparholic@hotmail.com> wrote:
> > > >
> > > > Hey fucknut, newsreader.com is not my isp. Pull your head out of
> > > > your lardass.
> > > >
> > > pick at nits, dimwit.
> > >
> > You make a lousy net-nanny, lardass.
> > >
> > > newsreader.com is your usp and your headers prove
> > > it. your usenet service provider is what was being talked on. better
> > > now?
> > >
> > It has been my NSP for about nine years or so, when are you going to
> > have my account nuked, fucktard netkkkop?
>
> so far you arent doing anything illegal or dispeakable
>
Then why were you posting newsreader.coms aup, lardass?
>
> like N9OGLs
> sight or the niggermainia sight is doing so there isnt any reason to.
> but I am not the only one. you crossposted to the cb and uk groups
> and everybody knows that they are full of netcops so you are not out
> of the weeds yet. I have trimed the groups back for you so maybe
> they wont notice you. you are welcome.
>
Eat shit, fatboi.

(FU's set)

http://tinypic.com/ifsd1k.jpg

4527. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 19:55:41 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051211145541.892$ss@newsreader.com>
Source record: 66724
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.politics.liberalism

"Landshark" <s3buell@sbcglobal.net> wrote:
> "Lloyd" <lloyd@no.spammmmm> wrote in message
> news:701733.8F8789@tarrnews.net...
> > On 11 Dec 2005 15:32:13 GMT, Steveo <moparholic@hotmail.com> wrote:
> >> Lloyd <lloyd@no.spammmmm> wrote:
> >> > On 11 Dec 2005 13:06:13 GMT, Steveo <moparholic@hotmail.com> wrote:
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> >> > > Hey fucknut, newsreader.com is not my isp. Pull your head out of
> >> > > your lardass.
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> >> > pick at nits, dimwit.
> >> >
> >> You make a lousy net-nanny, lardass.
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> >> > it. your usenet service provider is what was being talked on.
> >> > better now?
> >> >
> >> It has been my NSP for about nine years or so, when are you going to
> >> have my account nuked, fucktard netkkkop?
> >
> > so far you arent doing anything illegal or dispeakable like N9OGLs
> > sight or the niggermainia sight is doing so there isnt any reason to.
> > but I am not the only one. you crossposted to the cb and uk groups
> > and everybody knows that they are full of netcops so you are not out
> > of the weeds yet. I have trimed the groups back for you so maybe
> > they wont notice you. you are welcome.
>
> Very astute on your part.............. Except this whole thread
> started when N8WWM posting with Moparholic@Hotmxxl.com aka Steveo
> in Rec.Radio.CB screen nic, you have been duped, keep up the great
> work though LMAO!!!!
>
> Landshark
>
Hey Shark, don't confuse the lardass netKKKop with facts. :)

http://tinypic.com/ifsd1k.jpg

4528. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 20:15:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3q1pp15fo35okss4kcfme655qr1rm386qr@4ax.com>
Source record: 66725

On Sun, 11 Dec 2005 17:22:16 GMT, "Greg Ordy"
<ordy@seed-solutions.com> wrote:

> Here are my personal experiences and observations with "BuryFlex".
...

Very well done Greg.

Hopefully, in the fullness of time, you will roll all this information into the web page.

I have read articles on issues with control of the foaming of dielectric during manufacture, it seems more difficult to control than all of the aspects of conventional solid PE dielectric line, so it leaves one wondering if that may be the cause of the apparently low Zo (~43 ohms) that you observed. If so, is it a batch to batch variation, variable along the line (although your charts don't suggest that), aging, temperature, migration of the centre conductor on the roll, etc?

Well done OM.

Owen
--

4529. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 21:37:42 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <439C9C26.DB2D78FF@sympatico.ca>
Source record: 66576

Charlie wrote:

> Wes Stewart said:
> >I find it curious that Andrew cable is seen so often at these events
> >and yet I've -never- even seen a piece of Davis cable, dispite the
> >claims that miles of it are in commercial use.
>
> It might be that the BuryFlex is still in use and has not been removed from
> service as the Heliax you cite has been. After all Davis BuryFlex 9914 does
> have a warranted - 20 year service life -
>
> Is there any other coax with such a warranty?
> ---
>
> Charlie

I don't seem to be able to find any mention of a warranty on their site - can
you point it out for me?

Dave

4530. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 21:58:48 UTC
From: Charlie <charlie@play.com>
Message-ID: <11pp8917jqjsaff@news.supernews.com>
Source record: 66577

At the bottom of this page the ** footnote
1. http://www.davisrf.com/ham1/coax.htm

"note that Bury-Flex has a 20+ year abrasive resistant jacket of PE"

--

Charlie

"Dave Holford" <holford@sympatico.ca> wrote in message
news:439C9C26.DB2D78FF@sympatico.ca...
>
>
> Charlie wrote:
>
>> Wes Stewart said:
>> >I find it curious that Andrew cable is seen so often at these events
>> >and yet I've -never- even seen a piece of Davis cable, dispite the
>> >claims that miles of it are in commercial use.
>>
>> It might be that the BuryFlex is still in use and has not been removed
>> from
>> service as the Heliax you cite has been. After all Davis BuryFlex 9914
>> does
>> have a warranted - 20 year service life -
>>
>> Is there any other coax with such a warranty?
>> ---
>>
>> Charlie
>
> I don't seem to be able to find any mention of a warranty on their site -
> can
> you point it out for me?
>
> Dave
>

4531. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 22:03:56 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <ni6pp11a0imuthls17vkh5r67i5mhk057c@4ax.com>
Source record: 66578

On Sat, 10 Dec 2005 17:15:44 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Charlie wrote:
>> I have emailed Davis RF and asked them to send me their test results. Yes
>> it will be interesting.
>>
>> Roy..doesn't seem a bit odd that NO ONE ELSE in over 10 years of BuryFlex
>> production has cited these same alarming "test results".
>
>No. My experience is that the vast majority of amateurs don't have the
>ability and/or confidence and/or interest and/or equipment to make good
>measurements. And lacking the ability to measure it, very few would be
>able to discern the difference in loss. If my measurements are typical,
>commercial and government users (if there indeed are any for this
>particular cable type) would quietly reject the stuff on incoming
>inspection and order something else.

I'd ten to agree and most take cable on faith as well.

>I do have a high degree of confidence that my measurements are accurate.
>I took a lot of care in characterizing the cable before using it for
>making remote antenna impedance measurements in the course of a
>consulting job. But it's entirely possible that the particular piece of
>cable I have is defective. That would just point to a quality control
>problem rather than overzealous specsmanship.

There are a number of things that can or possibly happen.

When you test coax connectors and termination effects are part
of the system and need to be considered.

I bought 250ft, then tested the 50ft sections I made up for the tower.
All five tested the same at 440mhz and my confidence factor was
good. The test setup was 0.100 Watt RF source, 3DB attenuator,
RLB, cable section, termaline watmeter. All check on spec
and I was doing to verify connectors installed as well. I only tried
one section for bening effects near the end as I was interested in
how it would behave for rotor loops. I saw now ill efects until I
reduced the bend radius to under 4 inches where it developed
a definitate bump that showed on a TDR. Like most foam cored
cables you can overbend it with bad results. The damaged length
was removed (only 4ft) and the cable placed in service.

Expected 2.9db @ 400mhz. But that does not allow for connectors
or measurment setup. Half that should be 1.45db (50ft).

However my testing was at 440mhz. All loss testing I did was
at 440 because small things look bigger there.

To the limits of the attenuators and meter calibration I'd call the
losses including the connectors right where I'd expect 50ft with
PL259s on at least one end would be. I got at 440, greater
than 1.6db but less than 1.8db. The loss was determined by
removing cable and substituting a known attenuators of .2db
steps as that was as fine as I had. Calculated was 1.66db
based on measurements. Allowing for test error and
connectors the there is some range of error. The RLB was
used to verify there were no visible bumps over the 6m, 2m and
420-450mhz range of the source.

The same setup for 50ft or both RG58A/U, RG8X and RG213
gave me 7db(pl259/ug174), 4.6-4.8(pl259/ug175), 2.4-2.6(pl259).
The RG213 was a suprize as I'd expected losses to be lower.
But the results were consistant. Where I give a range in loss
it is because the lower and higher attenuateors used were
either too low or too high meaning the exact result was somewhere
in between. The loss substitution is likely more accurate than
analog meters. Also I tried to minimize the error from adaptors
and cable transitions where needed though te test method tends
to zero them out by substiution.

I did during installation notice one thing over RG213. The 2M antenna
I'd tuned with a length of RG213 showed a higher VSWR when using the
Buryflex. Further tests reveled the losses of the 213 made the SWR
look better than it was. Antenna was readjusted and all was happy.

Allison
Kb1GMX

4532. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 22:29:20 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <c36pp1d294k62fsnair68e4bnp15ernm23@4ax.com>
Source record: 66579

On Sun, 11 Dec 2005 17:22:16 GMT, "Greg Ordy"
<ordy@seed-solutions.com> wrote:

[snip]

Good job Greg. Also thanks for the work on the N2PK VNA software.

By inspection of the loss figures for Buryflex on Davis' web site one can note that the loss at lower frequencies is higher than other RG-8 type cables.

Importing their data into Dan's (AC6LA) "bestfit.xls" spreadsheet shows very poor correlation with theoretical k1, k2 coefficients. I'm observing something similar on some RG-142 that I am measuring with my N2PK VNA. The '142 has a silver-coated, copper-plated steel center conductor and I believe that the skin depth encompasses the steel at lower frequencies.

Anyway, that might be a factor, assuming of course, that their data are valid.

4533. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 22:33:17 UTC
From: DrDeath <drdeath555usb@nospam.yahoo.com>
Message-ID: <11ppa9crq5r8r25@corp.supernews.com>
Source record: 66580
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.politics.liberalism

"Lloyd" <lloyd@no.spammmmm> wrote in message
news:701733.8F8789@tarrnews.net...
> On 11 Dec 2005 15:32:13 GMT, Steveo <moparholic@hotmail.com> wrote:
>> Lloyd <lloyd@no.spammmmm> wrote:
>> > On 11 Dec 2005 13:06:13 GMT, Steveo <moparholic@hotmail.com> wrote:
>> > >
>> > > Hey fucknut, newsreader.com is not my isp. Pull your head out of your
>> > > lardass.
>> >
>> > pick at nits, dimwit.
>> >
>> You make a lousy net-nanny, lardass.
>> >
>> > newsreader.com is your usp and your headers prove
>> > it. your usenet service provider is what was being talked on. better
>> > now?
>> >
>> It has been my NSP for about nine years or so, when are you going to have
>> my account nuked, fucktard netkkkop?
>
> so far you arent doing anything illegal or dispeakable like N9OGLs
> sight or the niggermainia sight is doing so there isnt any reason to.
> but I am not the only one. you crossposted to the cb and uk groups
> and everybody knows that they are full of netcops so you are not out
> of the weeds yet. I have trimed the groups back for you so maybe
> they wont notice you. you are welcome.

Gee Steveo, sounds like your in deep doo doo.....NOT. ROFLMAO I had my ISP
banned by an Undernet server. 10 years later I still have the same ISP.
As far as cross-posting http://niggermania.com I would like to have Lloyd
prove where it's illegal in the US. Google Nazi sometime and see how many
hate groups use the internet.

4534. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:08:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ppccaiq3ou379@corp.supernews.com>
Source record: 66581

Ralph Mowery wrote:
>
> Roy what kind of coax do you recommend along the same type ? I soon plan on
> putting up several beams, tribander for the low bands, 6 meter, 2 meter and
> a 432 antenna. Should be running about 125 feet or so. While I know
> hardline would be best for the VHF , I don't want to (can't spend the money,
> easy to install for the rotator) so I want to stay with one of the
> 9913/lmr400 types. I have had a piece of 9913 up for about 10 years and it
> seems to be ok, no water I can tell, I still would like to go with a solid
> foam type instead of the hollow core .
>
> Just looking at the specks and advertising can sometimes be deceiving.

Sorry, I'm not the best person to ask. A lot of the other folks here have a lot more experience than I do with applications like yours. Ruggedness and other physical properties can easily be more important than the technical specifications of a cable under idealized conditions, so I'd listen to people who have used cable for an extended period of time in similar circumstances to yours.

As far as loss goes, you're bump up against the laws of physics. Below a few GHz, dielectric loss in common coaxial cables is negligible. The shield has much larger surface area than the center conductor, so the loss ends up being dictated mainly by the diameter of the center conductor -- the larger it is for a given cable Z0, the lower the loss. Assuming a fixed Z0, the only ways you can make the center conductor larger are to increase the cable outer diameter, or reduce the effective dielectric constant of the insulation between center conductor and shield. The effective dielectric constant is reduced by using foamed dielectric coax, or even more by using mainly air dielectric, with a minimal amount of insulation for physical support. Consequently, for a given Z0 and outer diameter, and otherwise similar construction, foamed dielectric cable has less loss than solid dielectric cable, because its center conductor is larger. Mostly-air dielectric cable has less loss yet for the same reason. (In the microwave region, dielectric loss becomes significant, so there's a further loss reduction when the dielectric density is reduced.)

A stranded center conductor or braided shield increase the loss somewhat. It's difficult to find definitive data on just how much, probably because of the number of variables involved, like shield weave tightness and frequency. But the amount of increased loss can be quite significant, judging by the actual loss of typical coax vs. the loss predicted by the assumption of a solid center conductor and perfect shield. Ian, G3SEK just posted a possible explanation of an additional

loss mechanism for aluminum-foil shielded cable like BuryFlex -- tearing of the foil shield due to bending too sharply.

But I think amateurs often get too hung up on small amounts of cable loss. It's admittedly sometimes very important, but not in most cases. Cost, convenience, ease of use, connector type, and physical ruggedness might well be much more important criteria. And again, there are a lot of folks here who have a lot more relevant experience than I do, so you should listen carefully to their advice.

I do fully agree with your last statement.

Roy Lewallen, W7EL

4535. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:10:14 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <prbpp19meu8vib836ud2la38j7n8s98vj0@4ax.com>
Source record: 66582

On Sun, 11 Dec 2005 15:29:20 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>Importing their data into Dan's (AC6LA) "bestfit.xls" spreadsheet
>shows very poor correlation with theoretical k1, k2 coefficients. I'm
>observing something similar on some RG-142 that I am measuring with my
>N2PK VNA. The '142 has a silver-coated, copper-plated steel center
>conductor and I believe that the skin depth encompasses the steel at
>lower frequencies.

I noted when I imported Davis' Bury Flex data to tllce that the
regression model correlation coefficient was lower at 0.9918 than most
other data which tends to come in better than 0.997 and mostly 0.998
or better.

One of the reasons that some lines show a very good fit to the model
(eg 5 nines) is that the measurement data was fitted to a model, and
the published figures are from the model, not the original
measurements, and the error in deriving a model from the published
figures is principally caused by rounding of the published figures.

A possible explanation of Greg's observation of low Zo is that the
foam is more dense than intended, increasing C, lowering Zo, and
increasing loss at higher frequencies.

Owen
--

4536. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:16:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ppcq9dnup2s0a@corp.supernews.com>
Source record: 66583

Owen Duffy wrote:
>
> Very well done Greg.
>
> Hopefully, in the fullness of time, you will roll all this information
> into the web page.
>
> I have read articles on issues with control of the foaming of
> dielectric during manufacture, it seems more difficult to control than
> all of the aspects of conventional solid PE dielectric line, so it
> leaves one wondering if that may be the cause of the apparently low Zo
> (~43 ohms) that you observed. If so, is it a batch to batch variation,
> variable along the line (although your charts don't suggest that),
> aging, temperature, migration of the centre conductor on the roll,
> etc?
>
> Well done OM.
>

I've measured a lot of cable over the years, and have found considerable variation of velocity factor from batch to batch of otherwise identical cable from the same manufacturer, as Owen's articles imply. Assuming that the physical dimensions of the cable stay the same, Z0 will also vary with foam density.

The piece of BuryFlex I have measures right at 80% velocity factor, and very close to 50 ohms. I believe I'm within a percent or two on VF, and an ohm for Z0.

Roy Lewallen, W7EL

4537. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:25:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ppdc94o5lc717@corp.supernews.com>
Source record: 66584

Wes Stewart wrote:
> . . .
> Importing their data into Dan's (AC6LA) "bestfit.xls" spreadsheet
> shows very poor correlation with theoretical k1, k2 coefficients. I'm
> observing something similar on some RG-142 that I am measuring with my
> N2PK VNA. The '142 has a silver-coated, copper-plated steel center
> conductor and I believe that the skin depth encompasses the steel at
> lower frequencies.
> . . .

I've definitely seen this in RG-174 and some similar diameter 75 ohm cable, at 7 MHz. The problem with those cables is that the center conductor is made of very fine strands of Copperweld. While the fraction of copper relative to the wire diamter is large, the actual copper thickness is small due to the very small diameter wire, allowing current to penetrate into the steel at lower frequencies.

I've also seen the effect in the time domain when using RG-174 type cable but with solid silver-plated Copperweld center conductor. The increased loss at low frequency actually improves the step response somewhat because of the disproportionately higher loss at lower frequency.

Roy Lewallen, W7EL

4538. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:26:21 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11ppdcvnf1tik2b@corp.supernews.com>
Source record: 66585

eternalsquire@comcast.net wrote:
> Hi,
>
> It seems that my location boasts 60 to 110 mph winds on a regular
> basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> radials elevated at 7 feet, with rope guys... and the wind blew it
> apart like so much tin foil!
>
> Does anyone know of a decent commercial design for less than $1000 for
> a free standing 30 to 40 foot support that can take this darn wind???
>
> Thanks,
>
> The Eternal Squire
>
Please tell us where you live to have winds of that magnatude "on a
regular basis". I know of a two places like that, not in CONUS of
course, the site to the south is inhibited year round by US and Russia,
Spain, UK and one or two more that I can't think of right now. Where is
your location?

KF5DE

4539. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:38:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ppe3boh3dl889@corp.supernews.com>
Source record: 66586

Good work, Greg. It's refreshing to see that some people, at least, are still willing and able to do this rather than unquestioningly accept manufacturer's data. Even if the data turn out to be accurate, the process is truly educational.

The varying SWR while terminated with 50 ohms is consistent with the 45 ohm Z0 you observed. My piece of BuryFlex is right at 50 ohms, but I'm not too surprised at this amount of variation given the foamed dielectric. I measured 80% velocity factor, so if our respective measurements are good, the velocity factor of your piece should be around 72%.

Roy Lewallen, W7EL

4540. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:40:28 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <439CB8EC.D3253D99@sympatico.ca>
Source record: 66588

That's a guarantee??

Dave

Charlie wrote:

> At the bottom of this page the ** footnote
> 1. http://www.davisrf.com/ham1/coax.htm
>
> "note that Bury-Flex has a 20+ year abrasive resistant jacket of PE"
>
> --
>
> Charlie
>
> "Dave Holford" <holford@sympatico.ca> wrote in message
> news:439C9C26.DB2D78FF@sympatico.ca...
> >
> >
> > Charlie wrote:
> >
> >> Wes Stewart said:
> >> >I find it curious that Andrew cable is seen so often at these events
> >> >and yet I've -never- even seen a piece of Davis cable, dispite the
> >> >claims that miles of it are in commercial use.
> >>
> >> It might be that the BuryFlex is still in use and has not been removed
> >> from
> >> service as the Heliax you cite has been. After all Davis BuryFlex 9914
> >> does
> >> have a warranted - 20 year service life -
> >>
> >> Is there any other coax with such a warranty?
> >> ---
> >>
> >> Charlie
> >
> > I don't seem to be able to find any mention of a warranty on their site -
> > can
> > you point it out for me?
> >
> > Dave
> >

4541. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:47:45 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <439CBAA1.C9F84FCC@sympatico.ca>
Source record: 66589

It is NOT brand loyalty, but the published data by GM for the past xx+ years shows that their cars are best so I'll continue to drive GM, despite what independent testers may say. Besides which my son-in-law sells them so they must be best.

Dave

Charlie wrote:

> Owen it is NOT brand loyalty. It is the publicly published data by RF Davis
> (for the past 10+ years) vs. Roy's one-shot test setup some years ago. I'm
> not out to discredit Roy...I even shook his hand once at a Hamfest.
>
> --
>
> Charlie
>
> "Owen Duffy" <owen@no.where> wrote in message
> news:740np1hp0pauohor2336un600ni8fbvod6@4ax.com...
> > On Sat, 10 Dec 2005 17:15:44 -0800, Roy Lewallen <w7el@eznec.com>
> > wrote:
> >
> >>If no other reader of this newsgroup has some of this cable and the
> >>ability to test it, I'll see if I can arrange for someone else to make
> >>measurements and post results.
> >
> > Roy, this seems a case of brand loyalty vs objective measurement and
> > evaluation (albeit on a single sample).
> >
> > You will change your mind based on more measurement data, either
> > strengthening your existing opionion or changing it.
> >
> > Those with brand loyalty already know all they need to know, life is
> > comfortable.
> >
> > You are talking different languages, and the only way there will be
> > agreement is if you capitulate (which would be unprincipled in the
> > absence of evidence).
> >
> > Owen
> >
> > I remember the fierce debates over 9913, there were nearly as many
> > words written about how fabulous it was, as there were words written
> > on how to keep water out of it.
> > --

4542. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-11 23:50:28 UTC
From: Charlie <charlie@play.com>
Message-ID: <11ppeqcsv25q753@news.supernews.com>
Source record: 66587

Got your dig Roy.....kinda sad.....

--

Charlie

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11ppe3boh3dl889@corp.supernews.com...
> Good work, Greg. It's refreshing to see that some people, at least, are
> still willing and able to do this rather than unquestioningly accept
> manufacturer's data. Even if the data turn out to be accurate, the process
> is truly educational.
>
> The varying SWR while terminated with 50 ohms is consistent with the 45
> ohm Z0 you observed. My piece of BuryFlex is right at 50 ohms, but I'm not
> too surprised at this amount of variation given the foamed dielectric. I
> measured 80% velocity factor, so if our respective measurements are good,
> the velocity factor of your piece should be around 72%.
>
> Roy Lewallen, W7EL

4543. 'oL STEVEO

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 00:09:15 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11ppftdm5aij5aa@corp.supernews.com>
Source record: 66590

I think it is about time that 'ol Steveo was removed from this group. I have just read too much of his trash on these groups. Don't need 'im, can't use him. I just detest his vulgar mouth. Anybody can use a cuss word now and then, however, Steveo thrives on the most vulgar words and in long runs and young people and YLs read these posts and I feel very sad for them.

Butch KF5DE

4544. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 00:14:58 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051211191458.848$ZU@newsreader.com>
Source record: 66591
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.politics.liberalism

"DrDeath" <drdeath555usb@nospam.yahoo.com> wrote:
> "Lloyd" <lloyd@no.spammmmm> wrote in message
> news:701733.8F8789@tarrnews.net...
> > On 11 Dec 2005 15:32:13 GMT, Steveo <moparholic@hotmail.com> wrote:
> >> Lloyd <lloyd@no.spammmmm> wrote:
> >> > On 11 Dec 2005 13:06:13 GMT, Steveo <moparholic@hotmail.com> wrote:
> >> > >
> >> > > Hey fucknut, newsreader.com is not my isp. Pull your head out of
> >> > > your lardass.
> >> >
> >> > pick at nits, dimwit.
> >> >
> >> You make a lousy net-nanny, lardass.
> >> >
> >> > newsreader.com is your usp and your headers prove
> >> > it. your usenet service provider is what was being talked on.
> >> > better now?
> >> >
> >> It has been my NSP for about nine years or so, when are you going to
> >> have my account nuked, fucktard netkkkop?
> >
> > so far you arent doing anything illegal or dispeakable like N9OGLs
> > sight or the niggermainia sight is doing so there isnt any reason to.
> > but I am not the only one. you crossposted to the cb and uk groups
> > and everybody knows that they are full of netcops so you are not out
> > of the weeds yet. I have trimed the groups back for you so maybe
> > they wont notice you. you are welcome.
>
> Gee Steveo, sounds like your in deep doo doo.....NOT. ROFLMAO I had my
> ISP banned by an Undernet server. 10 years later I still have the same
> ISP. As far as cross-posting http://niggermania.com I would like to have
> Lloyd prove where it's illegal in the US. Google Nazi sometime and see
> how many hate groups use the internet.
>
Yep and specifically Usenet, there are 27 newsgroups than contain the word
nigger in their title. Lloyd has his netkkkop work cut out for him.

4545. Re: 'oL STEVEO

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 00:23:56 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051211192356.634$Py@newsreader.com>
Source record: 66592

Butch Magee <lynyrd@cableone.net> wrote:
> I think it is about time that 'ol Steveo was removed from this group.
>
Get busy, jackass.

4546. Antenna Modeling (dumb question#305)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 00:30:41 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Rw3nf.30420$dO2.19649@newssvr29.news.prodigy.net>
Source record: 66593

Hi.all, and BTW, Happy Holidays! Am attempting to model
a "Cushcrunch" A-627013, yagi and have it all but written,
and modeled what I have of it-- It is a 70 cm, with 6 and 2
meter yagis, the 6 meter horizontally polarized, both the
2 and 70 cm are vertically polarized, on the same boom, ofset
by aprox 1 inch , and the beast is mounted on a mast, 6 inch
from the two meter reflector. This is the first time attempted
modeling a multi band antenna, especially with the mast in the
same plane as the yagi. My question is 2 fold: 1; Given it is
behind the reflector, just how much diff does THAT add to the
pattern of the antenna, and 2; If it does, just HOW LONG an
element would this represent?? The mast length? and for the
small portion of mast, ABOVE the mast clamp?? Just curious
as to the effect it has . Your thoughts , please. Jim NN7K

4547. EZNEC model of a 2m Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 00:46:58 UTC
From: SignalFerret <signalferret@verizon.net>
Message-ID: <6M3nf.36595$Y7.27615@trnddc02>
Source record: 66594

Anyone model a Ringo Ranger? Thought I'd ask before I rediscover the wheel.
I'm having trouble with the feed section.

Robert
N3LGC

4548. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 00:47:57 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <QK3nf.74124$Y82.56525@bignews4.bellsouth.net>
Source record: 66595

"Jimmy" <fmuta@hotmail.com> wrote in message
news:1133964872.439314.98450@g49g2000cwa.googlegroups.com...
> Please excuse a curious newbie. This photo is from a neighbor's roof
> top. What kind of antenna is this?
> http://www.keepmyfile.com/image/399e1e252372
>
> Thanks.
>
Looks like the antenna we used for TRC-24's back in the early 70s late 60s
in Co A USASTRATCOM Long Lines Battalion North. - near Seoul Korea.
So its probably VHF .

4549. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 01:39:55 UTC
From: Greg Ordy <ordy@seed-solutions.com>
Message-ID: <Lx4nf.2696$3Z.1631@newsread1.news.atl.earthlink.net>
Source record: 66596

Roy Lewallen, W7EL, wrote:

>>>I measured 80% velocity factor, so if our respective
>>>measurements are good, the velocity factor of your piece should be
>>>around 72%.

Ok, my curiosity got the best of me, and I decided to
to measure the velocity factor. My VNA software has
a "distance to fault" feature, and I "worked backwards",
which is to say that I measured a length of the
BuryFlex with a tape measure (27' 2"), and adjusted
the VF on the distance to fault tool until I obtained the
same physical length. The far end of the cable was
terminated with an open circuit.

I happened to start with the measurement frequency set
to 1 MHz. Lo and behold, the VF needed to compute the
same physical length was 72%, as you suggested.

My own understanding is that VF should be constant with
respect to frequency, so I decided to vary the test frequency.
I should have left well enough alone.

I picked 1, 2, 4, 8, 16, and 32 MHz. For those frequencies,
I measured the following VFs:

1 MHz = 72%
2 MHz = 73%
4 MHz = 75%
8 MHz = 80%
16 MHz = 79%
32 MHz = 79%

I'm rounding the VF to integer values, since I don't think that any more accuracy
can be claimed in this setup.

Since that result was a little surprising, I grabbed some mini 8 (8X)
that was nearby, about 51.25 feet. The published VF is 78%, and
I measured the following, at the same test frequencies:

1 MHz = 78%
2 MHz = 78%
4 MHz = 79%
8 MHz = 79%
16 MHz = 80%
32 MHz = 80%

With this cable, the VF appeared much more constant across the
1 to 32 MHz range.

Is there an explanation that fits with my measurements?

Greg, W8WWV

4550. Re: Antenna Modeling (dumb question#305)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 01:47:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pplkv99f6f5c0@corp.supernews.com>
Source record: 66597

If you're modeling it with EZNEC or a similar program, just include the mast in the model as an additional wire. It's probably not practical to include the entire mast at full segmentation, but I'd think that two or three wavelengths would be enough to get an idea of how much effect it's likely to be having. You could model it as several wires, each segmented more coarsely as you get farther from the antenna. Add and remove the mast wire(s) to see what its effect is.

But your asking about for an equivalent element length for the mast makes it sound like you're using some sort of Yagi-specific program. If you are, perhaps someone familiar with the particular program could answer your question.

Roy Lewallen, W7EL

Jim - NN7K wrote:
> Hi.all, and BTW, Happy Holidays! Am attempting to model
> a "Cushcrunch" A-627013, yagi and have it all but written,
> and modeled what I have of it-- It is a 70 cm, with 6 and 2
> meter yagis, the 6 meter horizontally polarized, both the
> 2 and 70 cm are vertically polarized, on the same boom, ofset
> by aprox 1 inch , and the beast is mounted on a mast, 6 inch
> from the two meter reflector. This is the first time attempted
> modeling a multi band antenna, especially with the mast in the
> same plane as the yagi. My question is 2 fold: 1; Given it is
> behind the reflector, just how much diff does THAT add to the
> pattern of the antenna, and 2; If it does, just HOW LONG an
> element would this represent?? The mast length? and for the
> small portion of mast, ABOVE the mast clamp?? Just curious
> as to the effect it has . Your thoughts , please. Jim NN7K

4551. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 01:53:17 UTC
From: Charlie <charlie@play.com>
Message-ID: <11ppm0ndl78r49d@news.supernews.com>
Source record: 66598

I don't recall -anyone- using the word "guarantee". Please post that reference.....TY

--

Charlie

"Dave Holford" <holford@sympatico.ca> wrote in message news:439CB8EC.D3253D99@sympatico.ca...
> That's a guarantee??
>
> Dave
>
> Charlie wrote:
>
>> At the bottom of this page the ** footnote
>> 1. http://www.davisrf.com/ham1/coax.htm
>>
>> "note that Bury-Flex has a 20+ year abrasive resistant jacket of PE"
>>
>> --
>>
>> Charlie
>>
>> "Dave Holford" <holford@sympatico.ca> wrote in message
>> news:439C9C26.DB2D78FF@sympatico.ca...
>> >
>> >
>> > Charlie wrote:
>> >
>> >> Wes Stewart said:
>> >> >I find it curious that Andrew cable is seen so often at these events
>> >> >and yet I've -never- even seen a piece of Davis cable, dispite the
>> >> >claims that miles of it are in commercial use.
>> >>
>> >> It might be that the BuryFlex is still in use and has not been removed
>> >> from
>> >> service as the Heliax you cite has been. After all Davis BuryFlex 9914
>> >> does
>> >> have a warranted - 20 year service life -
>> >>
>> >> Is there any other coax with such a warranty?
>> >> ---
>> >>
>> >> Charlie

>> >
>> > I don't seem to be able to find any mention of a warranty on their
>> > site -
>> > can
>> > you point it out for me?
>> >
>> > Dave
>> >
>

4552. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 02:33:12 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <439CE168.95746EC1@sympatico.ca>
Source record: 66599

Ah yes -"warranted" - my apology!

"After all Davis BuryFlex 9914 does have a warranted - 20 year service life"

Dave

Charlie wrote:

> I don't recall -anyone- using the word "guarantee". Please post that
> reference.....TY
>
> --
>
> Charlie
>
> "Dave Holford" <holford@sympatico.ca> wrote in message
> news:439CB8EC.D3253D99@sympatico.ca...
> > That's a guarantee??
> >
> > Dave
> >
> > Charlie wrote:
> >
> >> At the bottom of this page the ** footnote
> >> 1. http://www.davisrf.com/ham1/coax.htm
> >>
> >> "note that Bury-Flex has a 20+ year abrasive resistant jacket of PE"
> >>
> >> --
> >>
> >> Charlie
> >>
> >> "Dave Holford" <holford@sympatico.ca> wrote in message
> >> news:439C9C26.DB2D78FF@sympatico.ca...
> >> >
> >> >
> >> > Charlie wrote:
> >> >
> >> >> Wes Stewart said:
> >> >> >I find it curious that Andrew cable is seen so often at these events
> >> >> >and yet I've -never- even seen a piece of Davis cable, dispite the
> >> >> >claims that miles of it are in commercial use.
> >> >>
> >> >> It might be that the BuryFlex is still in use and has not been removed
> >> >> from

> >> >> service as the Heliax you cite has been. After all Davis BuryFlex 9914
> >> >> does
> >> >> have a warranted - 20 year service life -
> >> >>
> >> >> Is there any other coax with such a warranty?
> >> >> ---
> >> >>
> >> >> Charlie
> >> >
> >> > I don't seem to be able to find any mention of a warranty on their
> >> > site -
> >> > can
> >> > you point it out for me?
> >> >
> >> > Dave
> >> >
> >
> >

4553. Re: Antenna ID

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 02:49:34 UTC
From: Earl Needham <munged@3lefties.com>
Message-ID: <11ppp9t7u4p4i3a@corp.supernews.com>
Source record: 66600

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:QK3nf.74124$Y82.56525@bignews4.bellsouth.net...
>
> "Jimmy" <fmuta@hotmail.com> wrote in message
> news:1133964872.439314.98450@g49g2000cwa.googlegroups.com...
> > Please excuse a curious newbie. This photo is from a neighbor's roof
> > top. What kind of antenna is this?
> > http://www.keepmyfile.com/image/399e1e252372
> >
> > Thanks.
> >
> Looks like the antenna we used for TRC-24's back in the early 70s late 60s
> in Co A USASTRATCOM Long Lines Battalion North. - near Seoul Korea.
> So its probably VHF .

UHF television, I think.

Earl
--
Earl Needham
Clovis, New Mexico USA

4554. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 03:18:30 UTC
From: Charlie <charlie@play.com>
Message-ID: <11ppr0eg481fe5a@news.supernews.com>
Source record: 66601

So now that has been cleared up..the question remains..
Is there any other coax available for amateur use that has a 20 years
service life warranty?

--

Charlie

"Dave Holford" <holford@sympatico.ca> wrote in message
news:439CE168.95746EC1@sympatico.ca...
> Ah yes -"warranted" - my apology!
>
> "After all Davis BuryFlex 9914 does have a warranted - 20 year service
> life"
>
> Dave
>
>
>
> Charlie wrote:
>
>> I don't recall -anyone- using the word "guarantee". Please post that
>> reference.....TY
>>
>> --
>>
>> Charlie
>>
>> "Dave Holford" <holford@sympatico.ca> wrote in message
>> news:439CB8EC.D3253D99@sympatico.ca...
>> > That's a guarantee??
>> >
>> > Dave
>> >
>> > Charlie wrote:
>> >
>> >> At the bottom of this page the ** footnote
>> >> 1. http://www.davisrf.com/ham1/coax.htm
>> >>
>> >> "note that Bury-Flex has a 20+ year abrasive resistant jacket of PE"
>> >>
>> >> --
>> >>
>> >> Charlie
>> >>

>> >> "Dave Holford" <holford@sympatico.ca> wrote in message
>> >> news:439C9C26.DB2D78FF@sympatico.ca...
>> >> >
>> >> >
>> >> > Charlie wrote:
>> >> >
>> >> >> Wes Stewart said:
>> >> >> >I find it curious that Andrew cable is seen so often at these
>> >> >> >events
>> >> >> >and yet I've -never- even seen a piece of Davis cable, dispite the
>> >> >> >claims that miles of it are in commercial use.
>> >> >>
>> >> >> It might be that the BuryFlex is still in use and has not been
>> >> >> removed
>> >> >> from
>> >> >> service as the Heliax you cite has been. After all Davis BuryFlex
>> >> >> 9914
>> >> >> does
>> >> >> have a warranted - 20 year service life -
>> >> >>
>> >> >> Is there any other coax with such a warranty?
>> >> >> ---
>> >> >>
>> >> >> Charlie
>> >> >
>> >> > I don't seem to be able to find any mention of a warranty on their
>> >> > site -
>> >> > can
>> >> > you point it out for me?
>> >> >
>> >> > Dave
>> >> >
>> >
>

4555. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 04:22:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gttpp19d412ckeseg2g3sinmpv0d3ic3qd@4ax.com>
Source record: 66602

On Sun, 11 Dec 2005 17:22:16 GMT, "Greg Ordy"
<ordy@seed-solutions.com> wrote:

> Here are my personal experiences and observations with "BuryFlex".

Hi Greg,

You've made a polished report with enough data, excellent graphics,
and concise narrative to closely examine some interesting issues. It
attended those points of batch process, service, variation across
types and time. This and your follow-on VF examination from Roy's
offhand observation have that Ham spirit.

What is more important is that you revealed errors (or aberrant
results) rather than brushing them under the rug. As this thread has
proven by increasing -ahem- testimony, not all specifications prove
out and sometimes those things not specified raise interesting
questions.

73's
Richard Clark, KB7QHC

4556. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 04:24:27 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1134361466.896537.89050@g47g2000cwa.googlegroups.com>
Source record: 66603

Butch Magee wrote:
> eternalsquire@comcast.net wrote:
> > Hi,
> >
> > It seems that my location boasts 60 to 110 mph winds on a regular
> > basis. I had put up a 1/4 wavelength 20m vertical with 1/8 wavelength
> > radials elevated at 7 feet, with rope guys... and the wind blew it
> > apart like so much tin foil!
> >
> > Does anyone know of a decent commercial design for less than $1000 for
> > a free standing 30 to 40 foot support that can take this darn wind???
> >
> > Thanks,
> >
> > The Eternal Squire
> >
> Please tell us where you live to have winds of that magnatude "on a
> regular basis". I know of a two places like that, not in CONUS of
> course, the site to the south is inhibited year round by US and Russia,
> Spain, UK and one or two more that I can't think of right now. Where is
> your location?

" 50 miles west of Gallup, NM." . . New Mexico's answer to Mt.
Washington?

I Googled him, seems like the biggest wind in his neighborhood is him.

> KF5DE

w3rv

4557. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 04:25:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pputoshoj3ua5@corp.supernews.com>
Source record: 66604

One thing I've learned is that a (good) short circuit is a better termination for this kind of measurement than an open circuit. With an open circuit you get fringing which varies with frequency and cable diameter.

If you don't have a decent commercially made short circuit, you can do reasonbly well with a connector and several radial wires from the shell to the center conductor, or better yet a metal disk. Or you could put a male connector on a short piece of coax and short circuit the end of the cable by squeezing the braid into the center and soldering it to the center conductor, taking its length into account for the measurement of course. The object is to minimize the series inductance which would be created with a single-wire or similar connection.

Wes and Ian can probably point you to more possible causes for this measurement result -- they're the real experts on VNA measurements. I'd be very surprised if the VF really varies with frequency -- in theory, it can't, in an ideal coaxial cable.

Roy Lewallen, W7EL

Greg Ordy wrote:
> Roy Lewallen, W7EL, wrote:
>
>
>>>>I measured 80% velocity factor, so if our respective
>>>>measurements are good, the velocity factor of your piece should be
>>>>around 72%.
>
>
> Ok, my curiosity got the best of me, and I decided to
> to measure the velocity factor. My VNA software has
> a "distance to fault" feature, and I "worked backwards",
> which is to say that I measured a length of the
> BuryFlex with a tape measure (27' 2"), and adjusted
> the VF on the distance to fault tool until I obtained the
> same physical length. The far end of the cable was
> terminated with an open circuit.
>
> I happened to start with the measurement frequency set
> to 1 MHz. Lo and behold, the VF needed to compute the
> same physical length was 72%, as you suggested.
>
> My own understanding is that VF should be constant with
> respect to frequency, so I decided to vary the test frequency.

> I should have left well enough alone.
>
> I picked 1, 2, 4, 8, 16, and 32 MHz. For those frequencies,
> I measured the following VFs:
>
> 1 MHz = 72%
> 2 MHz = 73%
> 4 MHz = 75%
> 8 MHz = 80%
> 16 MHz = 79%
> 32 MHz = 79%
>
> I'm rounding the VF to integer values, since I don't think that any more accuracy
> can be claimed in this setup.
>
>
> Since that result was a little surprising, I grabbed some mini 8 (8X)
> that was nearby, about 51.25 feet. The published VF is 78%, and
> I measured the following, at the same test frequencies:
>
> 1 MHz = 78%
> 2 MHz = 78%
> 4 MHz = 79%
> 8 MHz = 79%
> 16 MHz = 80%
> 32 MHz = 80%
>
> With this cable, the VF appeared much more constant across the
> 1 to 32 MHz range.
>
> Is there an explanation that fits with my measurements?
>
> Greg, W8WWV
>
>
>
>
>
>
>

4558. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 04:35:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11ppvggf7fr4l63@corp.supernews.com>
Source record: 66605

Ian White GM3SEK wrote:
> . . .
> Coaxial cables with braid-over-foil shielding have a generic problem
> that if they're bent too sharply, the foil will tear into separated
> segments each about an inch long. The cable then relies on the braid for
> overall shield continuity. It will still function, especially at low
> frequencies, but there isn't much contact pressure to maintain the
> continuity between the braid and the foil.
> . . .

Most interesting! The cable I've been measuring has been kept in a coil of about 3 feet diameter, but squeezing and handling it has reduced that to probably about a foot or so at times. But I don't recall the coil size when I received the cable, and of course I don't know anything about how it was handled between the manufacturer and delivery to my home. This might be an explanation for the variablility. I did hear from someone else a while back that he'd seen variability in a foil-wrapped cable, but I don't think it was specifically Bury-Flex. I have some RG-58 size cable with the same general construction which doesn't show this variability. But it looks like the stress would be worse on the foil in a larger diameter cable. Also, there seems to be some difference in how the foil is more-or-less bonded to the PE, and that would also play a role in the stress.

I want to keep the piece I've measured intact for the time being, but if I get up the time and interest to do more measurements on another piece of cable, a post mortem might be revealing.

Roy Lewallen, W7EL

4559. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 04:40:07 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <439CFF27.F7FAA66@sympatico.ca>
Source record: 66607

Where do you see a warranty?

Charlie wrote:

> So now that has been cleared up..the question remains..
> Is there any other coax available for amateur use that has a 20 years
> service life warranty?
>
> --
>
> Charlie
>
> "Dave Holford" <holford@sympatico.ca> wrote in message
> news:439CE168.95746EC1@sympatico.ca...
> > Ah yes -"warranted" - my apology!
> >
> > "After all Davis BuryFlex 9914 does have a warranted - 20 year service
> > life"
> >
> > Dave
> >
> >
> >
> > Charlie wrote:
> >
> >> I don't recall -anyone- using the word "guarantee". Please post that
> >> reference.....TY
> >>
> >> --
> >>
> >> Charlie
> >>
> >> "Dave Holford" <holford@sympatico.ca> wrote in message
> >> news:439CB8EC.D3253D99@sympatico.ca...
> >> > That's a guarantee??
> >> >
> >> > Dave
> >> >
> >> > Charlie wrote:
> >> >
> >> >> At the bottom of this page the ** footnote
> >> >> 1. http://www.davisrf.com/ham1/coax.htm
> >> >>
> >> >> "note that Bury-Flex has a 20+ year abrasive resistant jacket of PE"
> >> >>

> >> >> --
> >> >>
> >> >> Charlie
> >> >>
> >> >> "Dave Holford" <holford@sympatico.ca> wrote in message
> >> >> news:439C9C26.DB2D78FF@sympatico.ca...
> >> >> >
> >> >> >
> >> >> > Charlie wrote:
> >> >> >
> >> >> >> Wes Stewart said:
> >> >> >> >I find it curious that Andrew cable is seen so often at these
> >> >> >> >events
> >> >> >> >and yet I've -never- even seen a piece of Davis cable, dispite the
> >> >> >> >claims that miles of it are in commercial use.
> >> >> >>
> >> >> >> It might be that the BuryFlex is still in use and has not been
> >> >> >> removed
> >> >> >> from
> >> >> >> service as the Heliax you cite has been. After all Davis BuryFlex
> >> >> >> 9914
> >> >> >> does
> >> >> >> have a warranted - 20 year service life -
> >> >> >>
> >> >> >> Is there any other coax with such a warranty?
> >> >> >> ---
> >> >> >>
> >> >> >> Charlie
> >> >> >
> >> >> > I don't seem to be able to find any mention of a warranty on their
> >> >> > site -
> >> >> > can
> >> >> > you point it out for me?
> >> >> >
> >> >> > Dave
> >> >> >
> >> >
> > >

4560. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 04:49:17 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <2ovpp1lo4bmq5u189trd4m8v8p47k28sp3@4ax.com>
Source record: 66606

On Sun, 11 Dec 2005 20:35:23 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Most interesting! The cable I've been measuring has been kept in a coil
>of about 3 feet diameter, but squeezing and handling it has reduced that
>to probably about a foot or so at times. But I don't recall the coil
>size when I received the cable, and of course I don't know anything
>about how it was handled between the manufacturer and delivery to my
>home. This might be an explanation for the variablility. I did hear from

Further, you may not know the manufacturers specifications for minimum
bending radius to preserve operating characteristics.

When I went to the Davis site, I found a table of losses for several
cables including BuryFlex, but it did not state the length. I assumed
that the length was 100' from the losses quoted for some other cables.
The VF (82%) was buried in text, and I found no explicit information
on Zo, mechanical properties, bending restrictions, operating
temperatures etc. Some properties may be implied by description as an
RG8 type cable, but min bending radius is likely to be larger than a
solid dielectric / no foil cable.

Perhaps there is spec sheet there somewhere, it didn't leap out at me!

Owen
--

4561. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 07:45:56 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <s9bjyRB0qSnDFAYn@ifwtech.co.uk>
Source record: 66608

Roy Lewallen wrote:

>Wes and Ian can probably point you to more possible causes for this
>measurement result -- they're the real experts on VNA measurements.

Not I... I'm just trying to think acurately about it...

>I'd be very surprised if the VF really varies with frequency -- in
>theory, it can't, in an ideal coaxial cable.

Greg had written:
>> adjusted
>> the VF on the distance to fault tool until I obtained the
>> same physical length. The far end of the cable was
>> terminated with an open circuit.
>> I happened to start with the measurement frequency set
>> to 1 MHz. Lo and behold, the VF needed to compute the
>> same physical length was 72%, as you suggested.
>> My own understanding is that VF should be constant with
>> respect to frequency, so I decided to vary the test frequency.
>> I should have left well enough alone.
>> I picked 1, 2, 4, 8, 16, and 32 MHz. For those frequencies,
>> I measured the following VFs:
>> 1 MHz = 72%
>> 2 MHz = 73%
>> 4 MHz = 75%
>> 8 MHz = 80%
>> 16 MHz = 79%
>> 32 MHz = 79%
>> I'm rounding the VF to integer values, since I don't think that any
>>more accuracy
>> can be claimed in this setup.
>> Since that result was a little surprising, I grabbed some mini 8
>>(8X)
>> that was nearby, about 51.25 feet. The published VF is 78%, and
>> I measured the following, at the same test frequencies:
>> 1 MHz = 78%
>> 2 MHz = 78%
>> 4 MHz = 79%
>> 8 MHz = 79%
>> 16 MHz = 80%
>> 32 MHz = 80%
>> With this cable, the VF appeared much more constant across the
>> 1 to 32 MHz range.
>> Is there an explanation that fits with my measurements?

Since Greg's test setup measured a much more constant VF for the mini-8, it doesn't seem that the open-circuit termination is causing much error (note also that the largest deviation for the BF is at the lowest frequency, where fringing C would have the least effect).

This seems to bring us back to Greg's method of computing "distance to fault" from measurements of R and X at one end. Does that method involve any assumptions about idealized cable behavior that could create an *apparent* change in the computed VF?

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4562. alt.cocksucker.lardass.lloyd-davies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 13:35:30 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051212083530.519$Pb_-_@newsreader.com>
Source record: 66609
Cross-posted to: alt.cocksucker.lardass.lloyd-davies,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.politics.liberalism

Lloyd <lloyd@no.spammmmm> wrote:
> On Sun, 11 Dec 2005 19:37:27 GMT, Landshark <s3buell@sbcglobal.net>
> wrote:
> >
> > Very astute on your part..... Except this whole thread
> > started when N8WWM posting with Moparholic@Hotmxxl.com aka Steveo
> > in Rec.Radio.CB screen nic, you have been duped, keep up the great
> > work though LMAO!!!!
>
> so youre telling everyone that you have to post wherever others set
> there news group headers? you must be a real nimrod not to have any
> control over where you post.
>
> but maybe you are that way because you just posted to the new set of
> groups I trimed back to. LMFAO!!!!
>
Have people post to your group, lardass.

alt.cocksucker.lardass.lloyd-davies

http://tinypic.com/igix6o.jpg

4563. Re: EZNEC model of a 2m Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 14:01:28 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <290rp1198mjp0ldub2r8omcus77jprkugo@4ax.com>
Source record: 66610

Please share it when you get done. It would remove an item from my do
it list. I never was able to adjust the matching section to my
satisfaction when I first got it. I just left it wherever I was in the
process. That was probably around 1980. I recently bought a MFJ 269
and checked it out. The SWR wanders around quite a bit but always
stays below 2:1.

John Ferrell W8CCW

On Mon, 12 Dec 2005 00:46:58 GMT, "SignalFerret"
<signalferret@verizon.net> wrote:

>Anyone model a Ringo Ranger? Thought I'd ask before I rediscover the wheel.
>I'm having trouble with the feed section.
>
>Robert
>N3LGC
>
John Ferrell W8CCW

4564. Re: EZNEC model of a 2m Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 15:35:11 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <PMgnf.3473$Dd2.1208@newsread3.news.atl.earthlink.net>
Source record: 66611

John Ferrell wrote:

> Please share it when you get done. It would remove an item from my do
> it list. I never was able to adjust the matching section to my
> satisfaction when I first got it. I just left it wherever I was in the
> process. That was probably around 1980. I recently bought a MFJ 269
> and checked it out. The SWR wanders around quite a bit but always
> stays below 2:1.
>
> John Ferrell W8CCW

I should have said the Swr Wanders around across the band...

--
John Ferrell W8CCW

4565. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 15:51:20 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <IrE6pK.AtB@bath.ac.uk>
Source record: 66612

Charlie wrote:

> At the bottom of this page the ** footnote
> 1. http://www.davisrf.com/ham1/coax.htm
>
> "note that Bury-Flex has a 20+ year abrasive resistant jacket of PE"
>
>
Ah! If you believe that is a warranty, then I'm not
surprised at your belief in their published performance
figures.

Andy

4566. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 15:56:07 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <IrE6xJ.Ay1@bath.ac.uk>
Source record: 66613

Charlie wrote:
> So now that has been cleared up..the question remains..
> Is there any other coax available for amateur use that has a 20 years
> service life warranty?
>
20 year jacket warranty is _not_ a 20 year service life warranty.
From what other posters are measuring, the cable has a close to
zero service life. Roy can certainly measure things properly and
if he says the piece he had was bad then I believe him. I believe
Greg too. There are just too many bad measurements showing up,
done by experienced and competent people, for it to be coincidence.
The cable is bad out of the box in at least some instances. There
is no warranty covering that AFAICS.

vy 73

Andy, M1EBV

4567. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 16:04:57 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <IrE7C9.BA5@bath.ac.uk>
Source record: 66614

mcalhoun@ksu.edu wrote:

>>>Was just wondering if coax feed with balun at centerpoint would be better
>>>than ladderline feed with balun at tuner output (and no, my tuner doesn't
>>>have an internal balun).
>
>
>>Tuner-balun-ladder-antenna is better. Lower losses if
>>the tuner is doing anything, i.e. antenna is not 50+j0 ohms.
>
>
> Since you are considering using ladder-line, you must be thinking a little
> about efficiency; wouldn't ChokeBalun-BalancedTuner-ladder-antenna be at
> least as good and maybe even better?
>
Yes, but that really needs either an expensive floated or balanced tuner
or a remotely controlled one. I use an SGC230 in exactly the line up you
suggested.

Most manual unbalanced ATUs will have an RF hot chassis in that configuration
and hand proximity effects will make them very tricky to tune.

vy 73

Andy, M1EBV

4568. Re: WTB: Quantum Phaser & Quantum Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 18:24:13 UTC
From: David Austerman <daveaust@pol.net>
Message-ID: <5e1f5539b2fe967a5b931a0f6f1bc270.32924@mygate.mailgate.org>
Source record: 66615
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"David Austerman" <daveaust@pol.net> wrote in message
news:0640fc360c32ce3a72001a703ff242e6.32924@mygate.mailgate.org

> Wondering if anybody has a Quantum Loop or Quantum Phaser they are not
> using and might want to sell. Thanks, dave austerman, N5WNM

Thanks for all of the info. I'm researching the info you all sent...
dave

--
Posted via Mailgate.ORG Server - http://www.Mailgate.ORG

4569. Re: 'oL STEVEO

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 19:17:51 UTC
From: "void * clvrmnky()" <clvrmnky-uunet@coldmail.com.invalid>
Message-ID: <z1knf.4965$43.1940@nnrp.ca.mci.com!nnrp1.uunet.ca>
Source record: 66616

On 11/12/2005 7:09 PM, Butch Magee wrote:
> I think it is about time that 'ol Steveo was removed from this group. I
> have just read too much of his trash on these groups. Don't need 'im,
> can't use him. I just detest his vulgar mouth. Anybody can use a cuss
> word now and then, however, Steveo thrives on the most vulgar words and
> in long runs and young people and YLs read these posts and I feel very
> sad for them.
>
Well, this *is* a (somewhat) public forum. If you need to, you can
learn how to remove USENET postings, and not all servers accept removal
postings. (The issues around USENET removal postings can be argued
elsewhere! It _can_ be done, is all I'm saying. Whether it _should_ be
done, or will actually work is another matter.)

As far as "the youth" being present, while I understand your concerns my
feelings are that it is parents who should be thinking about what the
youth are doing online (and USENET is the least of your concerns as a
parent today). Anyway, most young people either swear like sailors
already, or better get used to it quick.

They know about sex, too, so I think it may be best to just move along
on that one.

Your best bet is to add people to your killfile/plonklist if you find
they raise your blood pressure too much.

4570. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 19:20:00 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <439dccd3.22632213@news.blueyonder.co.uk>
Source record: 66617
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
<magnum@NOSPAMmag2781.freeserve.co.uk> wrote:

>England is still a mainly white Christian Country..

What ever gave you that idea??? A very small percentage of the
population go to church in the UK. The rest have more sense.

4571. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 19:22:18 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <439ecd7f.22804080@news.blueyonder.co.uk>
Source record: 66618
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Sun, 11 Dec 2005 10:06:10 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>Tell you what, don't comment on George Bush and we will leave your
>bisexual,cheating ,scumbag prince alone.

Whoooooaaa there! Cheating yes, scumbag not sure, but bisexual(???).
Where on earth did you read that?

4572. Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 19:31:20 UTC
From: Dimitris <dilkinis@ee.duth.gr>
Message-ID: <1134415880.815042.320270@o13g2000cwo.googlegroups.com>
Source record: 66619

Hi to all

In the line of my theses I have designed an antenna,
which I consider as prototype(?) and named it D-Dimond1.

The antenna was designed, simulated and examined
(and propably will be constructed) for educational reasons mainly
and not only to be practically exploitable.

The operating frequency will be somewhere between 900 and 1300 MHz.
However, the test frequency that I used for my measurements was 1111
MHz.

So, I would be very happy if you could spend some time
to take a look to some of its characteristics:

The following URL shows the geometry of the antenna in the 3D space.
As you can see, it lies at the yoz plane.
As you cannot see, the input source is considered to be
at the starting point of the axes, O.
http://antennas.ee.duth.gr/ooo/dt/05/hli/08/geometry/geo.jpg

The following URL contains a text file with the coordinates of
the antenna's nodes and also the orientation of the current
running through the segments of the anntenna.
Its the input file to the program that I used
to compute the various characteristics.
http://antennas.ee.duth.gr/ooo/dt/05/hli/08/geometry/input.txt

The following URL will clear out the situation a little bit.
http://antennas.ee.duth.gr/ooo/dt/05/hli/07/standing%20wave%20analysis2.gif
It shows the current distribution (which is assumed to be sinusoid)
at the various segments of the antenna, as it results
from the application of the standing wave theory.
The antenna is composed of 7 dipoles lambda/2.
The angle between the 2 dipoles at both of the tops
of the antenna is 60 degrees.

The following URL shows the radiation pattern in 3D space.
http://antennas.ee.duth.gr/ooo/dt/05/hli/11/3d1da1richwire/da.jpg

The following URL shows the comparison of the radiation pattern
at the 3 main planes (xoy, yoz, zox) at cartesian and polar coordinate
systems
between the analytical and the computational method.

http://antennas.ee.duth.gr/ooo/dt/05/hli/16/comparison1richwire11analytical.doc

During the analytical method the antenna considered to be
polygonical and thinwire. The current distribution assumed to be
sinusoidal.
During the computational method I used a program called Richwire and is
based
at the Methods of Moments.

Finally, the following URL shows a series of measurements of various
characteristics
as the antenna is being divided at an increasingly number of segments.

http://antennas.ee.duth.gr/ooo/dt/05/hli/14/totals.txt

The columns of the txt file from the left are representing:
1.Segments, 2.Frequency [MHz], 3.Rinput resistance [O], 4.Xinput
reactance [O],
5.|Z| input impedance's magnitude [O], 6.Input impedance's phase
[degrees],
7.SWR(Zo=50O), 8.SWR(Z0=75O), 9.SWR(Zo=300O), 10.D directivity,
11.D[dB], 12.D [dBd],
13.Front to back ratio (Ef/Eb)

As you may notice the value of input impedance is too high.
therefore, SWR is very increased.
I've added lambda/2 and lambda/4 transmission lines at the source
which were situated perpendicular to antennas plane (at xoy plane)
in order to alter the input impedance's value.
However, the results from both attempts were not satisfying.

I look forward to hear proposals and advices in order to decrease SWR.
Are there any standard transmission lines at the market with Zo
aproximatelly
to my input resistance so I can recalculate SWR with better results?

I ask apologize for any mistakes and for my poor english
as it is not my native language.

Thank you in advance

Dimitris I.

4573. Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 19:32:59 UTC
From: Dimitris <dilkinis@ee.duth.gr>
Message-ID: <1134415979.669943.249080@f14g2000cwb.googlegroups.com>
Source record: 66620

Hi to all

In the line of my theses I have designed an antenna,
which I consider as prototype(?) and named it D-Dimond1.

The antenna was designed, simulated and examined
(and propably will be constructed) for educational reasons mainly
and not only to be practically exploitable.

The operating frequency will be somewhere between 900 and 1300 MHz.
However, the test frequency that I used for my measurements was 1111
MHz.

So, I would be very happy if you could spend some time
to take a look to some of its characteristics:

The following URL shows the geometry of the antenna in the 3D space.
As you can see, it lies at the yoz plane.
As you cannot see, the input source is considered to be
at the starting point of the axes, O.
http://antennas.ee.duth.gr/ooo/dt/05/hli/08/geometry/geo.jpg

The following URL contains a text file with the coordinates of
the antenna's nodes and also the orientation of the current
running through the segments of the anntenna.
Its the input file to the program that I used
to compute the various characteristics.
http://antennas.ee.duth.gr/ooo/dt/05/hli/08/geometry/input.txt

The following URL will clear out the situation a little bit.
http://antennas.ee.duth.gr/ooo/dt/05/hli/07/standing%20wave%20analysis2.gif
It shows the current distribution (which is assumed to be sinusoid)
at the various segments of the antenna, as it results
from the application of the standing wave theory.
The antenna is composed of 7 dipoles lambda/2.
The angle between the 2 dipoles at both of the tops
of the antenna is 60 degrees.

The following URL shows the radiation pattern in 3D space.
http://antennas.ee.duth.gr/ooo/dt/05/hli/11/3d1da1richwire/da.jpg

The following URL shows the comparison of the radiation pattern
at the 3 main planes (xoy, yoz, zox) at cartesian and polar coordinate
systems
between the analytical and the computational method.

http://antennas.ee.duth.gr/ooo/dt/05/hli/16/comparison1richwire11analytical.doc

During the analytical method the antenna considered to be
polygonical and thinwire. The current distribution assumed to be
sinusoidal.
During the computational method I used a program called Richwire and is
based
at the Methods of Moments.

Finally, the following URL shows a series of measurements of various
characteristics
as the antenna is being divided at an increasingly number of segments.

http://antennas.ee.duth.gr/ooo/dt/05/hli/14/totals.txt

The columns of the txt file from the left are representing:
1.Segments, 2.Frequency [MHz], 3.Rinput resistance [O], 4.Xinput
reactance [O],
5.|Z| input impedance's magnitude [O], 6.Input impedance's phase
[degrees],
7.SWR(Zo=50O), 8.SWR(Z0=75O), 9.SWR(Zo=300O), 10.D directivity,
11.D[dB], 12.D [dBd],
13.Front to back ratio (Ef/Eb)

As you may notice the value of input impedance is too high.
therefore, SWR is very increased.
I've added lambda/2 and lambda/4 transmission lines at the source
which were situated perpendicular to antennas plane (at xoy plane)
in order to alter the input impedance's value.
However, the results from both attempts were not satisfying.

I look forward to hear proposals and advices in order to decrease SWR.
Are there any standard transmission lines at the market with Zo
aproximatelly
to my input resistance so I can recalculate SWR with better results?

I ask apologize for any mistakes and for my poor english
as it is not my native language.

Thank you in advance

Dimitris I.

4574. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 19:44:16 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnkjsb$o7m$1@newsg4.svr.pol.co.uk>
Source record: 66621
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:439dccd3.22632213@news.blueyonder.co.uk...
> On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
> <magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>
> >England is still a mainly white Christian Country..
>
> What ever gave you that idea??? A very small percentage of the
> population go to church in the UK. The rest have more sense.

Ok, re-phrase time, England is still mainly a White non-practicing Christian
Country :o)

4575. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 20:19:10 UTC
From: "M. J. Powell" <mike@pickmere.demon.co.uk>
Message-ID: <6ohVm5H+sdnDFwaB@pickmere.demon.co.uk>
Source record: 66622
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

In message <439dccd3.22632213@news.blueyonder.co.uk>, Peter
<microwaves@blueyonder.co.uk> writes
>On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
><magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>
>>England is still a mainly white Christian Country..
>
>What ever gave you that idea??? A very small percentage of the
>population go to church in the UK. The rest have more sense.

More people go to church than go to football matches.

Mike
--
M.J.Powell

4576. Re: 'oL STEVEO

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 21:16:45 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051212161645.390$nq@newsreader.com>
Source record: 66623

"void * clvrmnky()" <clvrmnky-uunet@coldmail.com.invalid> wrote:
> On 11/12/2005 7:09 PM, Butch Magee wrote:
> > I think it is about time that 'ol Steveo was removed from this group.
> > I have just read too much of his trash on these groups. Don't need
> > 'im, can't use him. I just detest his vulgar mouth. Anybody can use a
> > cuss word now and then, however, Steveo thrives on the most vulgar
> > words and in long runs and young people and YLs read these posts and I
> > feel very sad for them.
> >
> Well, this *is* a (somewhat) public forum. If you need to, you can
> learn how to remove USENET postings, and not all servers accept removal
> postings. (The issues around USENET removal postings can be argued
> elsewhere! It _can_ be done, is all I'm saying. Whether it _should_ be
> done, or will actually work is another matter.)
>
Hello Void.

Sending bogus cancel messages would be one way for Butch Magee to have
himself removed from his posting privileges. :)

Best Regards,
Steveo.

4577. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-12 23:48:15 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <C-OdnfWKJtCjkQPenZ2dnUVZ_s2dnZ2d@comcast.com>
Source record: 66624
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Peter wrote:
> On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
> <magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>
>
>>England is still a mainly white Christian Country..
>
>
> What ever gave you that idea??? A very small percentage of the
> population go to church in the UK. The rest have more sense.

Peter, I'll remember you in prayers and at my masses.

4578. Re: how to model frequency response of a loaded vertical ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 00:57:25 UTC
From: Dominique Michel <dominique.michel@citycable.ch>
Message-ID: <20051213015725.1734dfa4@pingouin.banquise>
Source record: 66625

It is a free antenna simulation software NEC2 at http://www.nec2.org/
You must be able to model your antenna and much more with it.

Here is an exemple of what this software can do:
http://www.extremetech.com/article2/0,1558,1641191,00.asp

Sorry windose user, I believe in free software. If you want this
software, it is time to try linux. You must have at least 1 free
partition, and the installation process of most of the linux
distributions will install a double boot windows-linux for you.

Best,
Dominique

On Sat, 03 Dec 2005 22:43:16 -0800
Roy Lewallen <w7el@eznec.com> wrote:

> I apologize -- I read your earlier posting too hastily. Your antenna
> requires the full version of EZNEC because of the inductor. While a
> short inductor can be modeled as a lumped load, that doesn't work
> well in cases like this where the current changes significantly from
> one end of the coil to the other due to radiation. The coil has to be
> modeled as a helix.
>
> A full model of your antenna with the coil properly modeled shows a
> feedpoint impedance of 5.03 - j212 ohms at 112 MHz over perfect
> ground. Loss in a real ground system will of course increase the
> resistance. It resonates at 171 MHz, where the feedpoint resistance
> is about 17 ohms. My result is far from your finding of resonance
> around 112 MHz, so maybe I didn't interpret the design correctly --
> the antenna I modeled is a total of 11 inches high, the center 3
> inches of that being the 1 inch diameter 5 turn coil.
>
> With EZNEC and similar programs, you can only connect directly only
> to perfect and MININEC-type ground; connection to Real, High-Accuracy
> ground results in an unpredictable resistance that has no physical
> meaning. More information can be found in the Modeling Ground chapter
> of the EZNEC manual under Building The Model.
>
> Roy Lewallen, W7EL
>
> dansawyeror wrote:
> > Roy,
> >
> > Thanks, I was able to enter the data into eznec and run the
> > simulation. The output was 'confusing'. Eznec predicted 100 Ohm

> > over various grounds. Other models predict 5 Ohms for the antenna
> > plus ground resistance with a total of 10 Ohms or so. Which is
> > correct? How can the differences be reconciled?
> >
> > Thanks again - Dan
> >
> > Roy Lewallen wrote:
> >
> >> dansawyeror wrote:
> >>
> >>> All,
> >>>
> >>> I am creating a 'scaled' model of a loaded vertical. The model is
> >>> complete and in place. However I immediately realized I had no
> >>> idea of the 'theoretical' response. How can I calculate the
> >>> expected impedance response of a loaded vertical? It a mid load
> >>> construction,
> >>>
> >>> the base in #10 solid copper 4 inchs,
> >>> the coil is .6 pitch, 1 inch diameter, 5 turns #12, measuring .72
> >>> uH, and the top is 4 inch #12.
> >>>
> >>> The antenna appears to resonate at about 112 MHz.
> >>>
> >>> The instrumentation, a directional coupler measuring reflection
> >>> is located at the base, directly under the 'ground plane'. This
> >>> allows measuring input and reflected signal strength.
> >>>
> >>> The question is: How can I plot the expected impedance from say
> >>> 100 MHz to 130 MHz?
> >>>
> >>> Thanks - Dan
> >>
> >>
> >>
> >> The free EZNEC demo from http://eznec.com will give you the
> >> information you need.
> >>
> >> Roy Lewallen, W7EL

4579. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 01:46:36 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <c9358$439e27ff$97d56a33$29184@ALLTEL.NET>
Source record: 66626
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

It has been published in a number of supermarket tabloids.

I mean look at him, if he wouldn't suck a dick he at least would hold in his mouth until the swelling went down.

The whole bloody Royal lot are dumber that coal buckets. One of the reasons I have to smile when you folks across the pond attack our presidents intelligence..

"Peter" <microwaves@blueyonder.co.uk> wrote in message news:439ecd7f.22804080@news.blueyonder.co.uk...
> On Sun, 11 Dec 2005 10:06:10 -0500, "Fred W4JLE" <w4jle@w4jle.com>
> wrote:
>
> >Tell you what, don't comment on George Bush and we will leave your
> >bisexual,cheating ,scumbag prince alone.
>
> Whoooooaaa there! Cheating yes, scumbag not sure, but bisexual(???).
> Where on earth did you read that?
>

4580. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 01:49:33 UTC
From: eternalsquire@comcast.net
Message-ID: <1134438573.139279.151020@o13g2000cwo.googlegroups.com>
Source record: 66627

w3rv,

The wind speed I quoted is intermittent, not continuous.

>I Googled him, seems like the biggest wind in his neighborhood is him.

Seems like the biggest bully in the neighborhood is now you. Why don't
you
put your judgementalism to good use and go beat up on some trolls?

The Eternal Squire

4581. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 02:07:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11psb7jjj20qv2d@corp.supernews.com>
Source record: 66628

Reg Edwards wrote:
> To find ALL electrical characteristics and performance of
> solid-polyethylene transmission line, use program COAXPAIR, from audio
> frequencies to UHF.
>
> Accuracy is of the same order as physical dimensions can be measured.
> Use a micrometer to measure inner conductor diameter and diameter over
> insulant. Or just guess at it. No need to unwind the cable off the
> drum!
>
> In a few seconds, download COAXPAIR from website below and run
> immediately.

Have you compared the results to any measurements of real cables?

Roy Lewallen, W7EL

4582. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 02:34:26 UTC
From: richardharrison@webtv.net
Message-ID: <9829-439E3332-440@storefull-3251.bay.webtv.net>
Source record: 66630

Reg, G4FGQ wrote:
"Americans, as they call themselves, are just "USA Citixens"."

That`s about right. Nearly all recently descend from immigrants from elsewhere. Theodore Roosevelt, whise image is among those chiseled on Mount Rushmore had something to say about American citizens in 1907, and it is still true:
"In the first place, we should insist that if the immigrant who comes here in good faith becomes an American and assimilates himself to us, he shall be treated on an exact equality with everyone else. for it is an outrage to discriminate against any such ,man because of creed, or birthplace or origin.

But this is predicated upon the person`s becomimg in every facet an American... There can be no divided allegiance here. Any man who says he is an American, but something else also, isn`t an American at all.

We have room for but one flag, the American flag... Wehave room for but one language here and that is the English language... and we have room for but one sole loyalty and that is a loyalty to the American people.

Theodore Roosevelt 1907

Teddy`s test works for me.

Best regards, Richard Harrison, KB5WZI

4583. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 02:35:26 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <439e3382$0$3756$39cecf19@news.twtelecom.net>
Source record: 66629
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Amos Keag wrote:
> Peter wrote:
>
>> On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
>> <magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>>
>>
>>> England is still a mainly white Christian Country..
>>
>>
>>
>> What ever gave you that idea??? A very small percentage of the
>> population go to church in the UK. The rest have more sense.
>
>
> Peter, I'll remember you in prayers and at my masses.
>

Superstition is as superstition does.

tom
K0TAR

4584. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 02:48:43 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns972ABF5C77B37doldridgsprintca@64.59.135.159>
Source record: 66631

"Dimitris" <dilkinis@ee.duth.gr> wrote in
news:1134415979.669943.249080@f14g2000cwb.googlegroups.com:

> http://antennas.ee.duth.gr/ooo/dt/05/hli/16/comparison1richwire11analyt
> ical.doc

I did an analysis of my own (with very poor tools) that indicated that the
antenna is resonant at 93.1 percent of the design frequency with an
impedance of very close to 75 ohms resistive.

--
Dave Oldridge+
ICQ 1800667

4585. Re: dipole and balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 05:38:38 UTC
From: mcalhoun@ksu.edu
Message-ID: <dnlmou$3b2@unix1.cc.ksu.edu>
Source record: 66632

>>>Tuner-balun-ladder-antenna is better....
>> ... wouldn't ChokeBalun-BalancedTuner-ladder-antenna be ... better?
>Yes, but that really needs either an expensive floated or balanced tuner
>or a remotely controlled one....

Not counting the choke balun (coax coiled on an oatmeal box), my
"expensive" balanced tuner consists of a variable capacitor, two
inductors, and two alligator clips. When my antenna configurations
settle down (probably not soon), I may replace the alligator clips
with a two-dec rotary switch. (Of course, if I had two identical
rotary inductors, I wouldn't need the alligator clips!)
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4586. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 06:41:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnlqe4$g44$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66633

```
> Reg Edwards wrote:
> > To find ALL electrical characteristics and performance of
> > solid-polyethylene transmission line, use program COAXPAIR, from
audio
> > frequencies to UHF.
> >
> > Accuracy is of the same order as physical dimensions can be
measured.
==========================================

> Have you compared the results to any measurements of real cables?
>
> Roy Lewallen, W7EL

==========================================

Yes, Roy. Countless times.

Have you any more questions?
----
Reg, G4FGQ
```

4587. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 08:26:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pt1dj9ll4o4f6@corp.supernews.com>
Source record: 66634

Reg Edwards wrote:
>>Reg Edwards wrote:
>>
>>>To find ALL electrical characteristics and performance of
>>>solid-polyethylene transmission line, use program COAXPAIR, from
>
> audio
>
>>>frequencies to UHF.
>>>
>>>Accuracy is of the same order as physical dimensions can be
>
> measured.
> ==========
>
>
>>Have you compared the results to any measurements of real cables?
>>
>>Roy Lewallen, W7EL
>
>
> ==========
>
> Yes, Roy. Countless times.
>
> Have you any more questions?
> ----
> Reg, G4FGQ

Yes. Where can I buy some of that RG-58 that has only 2.2 dB/100 foot loss, or RG-213 that has only 0.89 dB loss, at 50 MHz?

Roy Lewallen, W7EL

4588. Re: Back to fundamentals

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 09:30:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11pt55e220k6c62@corp.supernews.com>
Source record: 66635

Gene Fuller wrote:
>. . .

>> [I wrote:]
>> One final note, regarding the NEC applied plane wave. My earlier
>> statement that the resulting field is twice the plane wave source
>> magnitude when a ground plane is present is true only when the plane
>> wave is applied over perfect ground at exactly grazing incidence
>> (zenith angle = 90 deg.). If applied from other angles the resulting
>> field strength will be different. If you apply a vertically polarized
>> wave over a ground plane, I believe the resulting field strength will
>> look like the pattern from a vertical radiator over a perfect ground
>> plane -- strongest when applied at the horizon, decreasing when
>> applied at higher angles, and dropping to zero if applied from
>> directly overhead. I haven't confirmed this, but believe it's
>> necessary in order to get a receiving pattern that's the same as the
>> transmitting pattern. So use it with caution when a ground plane is
>> present, and don't casually make assumptions about the resulting field.
>
>
>
> I believe a better way to describe this situation is that the plane wave
> field strength does not go to zero, but rather the effective aperture of
> the antenna goes to zero as the plane wave is applied from overhead.
> This does not change your conclusion with respect to antenna patterns.

I'm not sure either one of us quite has it right. In a model experiment, I set up a short open circuited vertical dipole just above a perfect ground plane, and applied a vertically polarized plane wave from the horizon. Let's call the resulting voltage at the dipole center V1. Then I changed the direction of the plane wave so it was coming from an elevation angle of 45 degrees above the horizon, but with the same amplitude. The dipole voltage was about 0.7 * V1, about what we'd expect from the change in effective aperture of the vertical dipole due to the different arrival elevation angle. But if I tilt the dipole back 45 degrees so it's parallel to the incident E field, the voltage drops to about 0.5 * V1, another 3 dB. I believe this indicates that the field in the vicinity of the dipole is oriented normal to the ground plane, and it has a magnitude that's about 0.7 as great as it is when the same amplitude wave is fired from a horizontal direction. A second check was to tilt it 45 degrees the other way, so its end is pointing directly toward the direction of the impinging wave. The result was again about 0.5 * V1, adding proof that the field in its vicinity is normal to the ground plane and not tilted in the direction of the source. So the antenna aperture is indeed changing as we change the orientation of the

antenna relative to the field in its vicinity. But that's not the same as the orientation of the antenna relative to the direction from which the plane wave originates. (They are of course the same if the ground plane is absent.) The change in antenna output (in this case) when the source direction is changed is due to the fact that the magnitude of the field strength has changed, not because its orientation relative to the antenna has changed.

When the direction of the plane wave is elevated 45 degrees, it has equal horizontally and vertically polarized components. The horizontal components cancel on reflection, while the vertical components reinforce as before. This leaves only the vertical component in the vicinity of the sense dipole, and it's 0.707 * the value when the same amplitude wave is coming in horizontally. The dipole voltage is maximum when it's oriented to be parallel with this field, that is, vertical.

At least I think this is a correct interpretation of what I'm seeing. These effects are all tied in together, and I've spent so long looking at the problem from the transmitting direction that I'm having some trouble getting my thinking turned around. But I'm slowly getting there.

Roy Lewallen, W7EL

4589. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 10:29:18 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1134469758.398180.35890@g47g2000cwa.googlegroups.com>
Source record: 66636

eternalsquire@comcast.net wrote:
> w3rv,
>
> The wind speed I quoted is intermittent, not continuous.
>
> >I Googled him, seems like the biggest wind in his neighborhood is him.
>
> Seems like the biggest bully in the neighborhood is now you. Why don't
> you
> put your judgementalism to good use and go beat up on some trolls?
>

That's what I did.

> The Eternal Squire

w3rv

4590. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 11:12:13 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <IrFoGD.9qD@bath.ac.uk>
Source record: 66637
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.amateur.policy

The Magnum wrote:

> "Peter" <microwaves@blueyonder.co.uk> wrote in message
> news:439dccd3.22632213@news.blueyonder.co.uk...
>
>>On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
>><magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>>
>>
>>>England is still a mainly white Christian Country..
>>
>>What ever gave you that idea??? A very small percentage of the
>>population go to church in the UK. The rest have more sense.
>
>
> Ok, re-phrase time, England is still mainly a White non-practicing Christian
> Country :o)
>
>
Don't forget we are non-practising cannibals, too.

In fact the list of what we are not practitioners
of is fairly extensive.

HTH

Andy, M1EBV

4591. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 11:27:43 UTC
From: "G1LVN (for it is he)" <gareth.paley@gmail.com>
Message-ID: <dnmb7fqkc1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66638
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.amateur.policy

"Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
news:IrFoGD.9qD@bath.ac.uk...
> Don't forget we are non-practising cannibals, too.
>
> In fact the list of what we are not practitioners
> of is fairly extensive.
>
> HTH

No practising Judo Christian, shirley? ;-)

--
--
73 de G1LVN (M0WWS)
NEW QTH Xmas Lights:
http://www.g1lvn.org.uk

4592. New Yaesu FT-990 Group

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 12:57:00 UTC
From: jon@portlandbill.co.uk
Message-ID: <1134478620.364902.159520@z14g2000cwz.googlegroups.com>
Source record: 66639

Just to let all FT-990 owners know that there is a new Yahoo group dedicated to this wonderful radio. You can find it at http://groups.yahoo.com/group/ft_990/

We only have a few members at the moment but anyone is welcome to join us.

Thanks

Jon G2FHF

4593. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 16:18:38 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <1ZDjLTGeRvnDFwZR@philstheboss.freeserve.co.uk>
Source record: 66640
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

>Ok, re-phrase time, England is still mainly a White non-practicing Christian
>Country :o)

Unlike France:o)

--
Philip de Cadenet G4ZOW
Transmitters 'R' Us
http://www.transmittersrus.com

4594. Re: My vertical blew down!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 16:58:52 UTC
From: eternalsquire@comcast.net
Message-ID: <1134493132.200805.99520@g49g2000cwa.googlegroups.com>
Source record: 66641

Then you're blind. The difference between a troll and me is that a troll has harmful intent to seek to divide the group, like Polymath. My intent is simply to ask naive questions that people need to ask but don't because of fear of being punished by people like you.

If I'm a troll, then you're an ogre.

4595. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 17:00:21 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1134493221.031820.158500@g47g2000cwa.googlegroups.com>
Source record: 66642

Cecil Moore wrote:
> Fred W4JLE wrote:
> > The website states 73 feet for the 40 meter version that can also be used on
> > 80. One would then assume that a 20 meter version 36.5 feet would also work
> > on 40.
>
> Yep, but not on 30m and 17m.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

It's NICE to see OTHERS taking this Antenna IDEA......seriously !?

I asked about the design awhile ago. Good reading for me.

Paladin

4596. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 18:17:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <du3up1lf7006v2rb98afsjfqj4qomipt0p@4ax.com>
Source record: 66643

On 12 Dec 2005 11:32:59 -0800, "Dimitris" <dilkinis@ee.duth.gr> wrote:

>I look forward to hear proposals and advices in order to decrease SWR.
>Are there any standard transmission lines at the market with Zo
>aproximatelly
>to my input resistance so I can recalculate SWR with better results?
>
>I ask apologize for any mistakes and for my poor english
>as it is not my native language.
>
>Thank you in advance

Hi Dimitris,

Your English is very good. One question: What is it you want to
achieve that only this antenna can do?

73's
Richard Clark, KB7QHC

4597. WTB Outbacker Mobile HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-13 22:00:43 UTC
From: Doug <cindyd1@ptd.net>
Message-ID: <NcCdnfPb0YLnxD7eUSdV9g@ptd.net>
Source record: 66476

Hi All,

Looking for an Outbacker mobile HF antenna.

Tnx,

Doug "W3IIY@ptd.net"

4598. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 00:21:11 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <PLWdnfFfzYzn-ALeSa8jmw@karoo.co.uk>
Source record: 66644

Richard Clark wrote:

> On 12 Dec 2005 11:32:59 -0800, "Dimitris" <dilkinis@ee.duth.gr> wrote:
>
>>I look forward to hear proposals and advices in order to decrease SWR.
>>Are there any standard transmission lines at the market with Zo
>>aproximatelly
>>to my input resistance so I can recalculate SWR with better results?
>>
>>I ask apologize for any mistakes and for my poor english
>>as it is not my native language.
>>
>>Thank you in advance
>
>
> Hi Dimitris,
>
> Your English is very good. One question: What is it you want to
> achieve that only this antenna can do?
>
> 73's
> Richard Clark, KB7QHC

Sorry Dimitris but I have to agree with Richard Clark.

The frequency range from 900 to 1300 MHz is a common frequency for the older mobile phone systems and the DECT cordless phones.

There are currently many available non-patented aerial designs available when one needs an aerial for this frequency range.

You need to declare a number of other parameters except the fact that you managed to create a novel design.

The question is - Why choose this aerial?

Antenna gain?
Directivity?
Sensitivity to ferronous materials in the close vicinity?
Production - is the aerial easy to reproduce?

As the aerial seems to be a balanced design, how sensitive will the to production tolerances and inaccuracies?

Except for these basic questions - it's always nice to see new or different aerial concepts popping up Dimitris - so keep buggering on!

Cheers

Dan Andersson / M0DFI

4599. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 00:49:11 UTC
From: "R. Bubba McGillicutty" <Bubba@HubbaHubbaTire.com>
Message-ID: <439F6BDA.8090100@HubbaHubbaTire.com>
Source record: 66645
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Steveo wrote:
> http://niggermania.com/
>
Hey you gotta admit that there is some FUNNY shit on that site.

Hey they aren't even racisist. They just hate niggers.

4600. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 00:49:26 UTC
From: "R. Bubba McGillicutty" <Bubba@HubbaHubbaTire.com>
Message-ID: <439F6BE9.7070705@HubbaHubbaTire.com>
Source record: 66646
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Steveo wrote:
> http://niggermania.com/
>
Hey you gotta admit that there is some FUNNY shit on that site.

Hey they aren't even racisist. They just hate niggers.

4601. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 00:49:54 UTC
From: "R. Bubba McGillicutty" <Bubba@microshaft.com>
Message-ID: <439F6C05.20801@microshaft.com>
Source record: 66647
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Steveo wrote:
> http://niggermania.com/
>
Hey you gotta admit that there is some FUNNY shit on that site.

Hey they aren't even racisist. They just hate niggers.

4602. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 03:09:06 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <439f8b18.136876998@news.blueyonder.co.uk>
Source record: 66648
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Mon, 12 Dec 2005 20:46:36 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>
>The whole bloody Royal lot are dumber that coal buckets. One of the reasons
>I have to smile when you folks across the pond attack our presidents
>intelligence..
>

The important difference is, Fred, that our Royals do not rule the
country... ie they don't make decisions to go to war, put up taxes,
increase the price of fuel, etc. Your president does and over here
most Brits would not agree with his attitude to the Iraq war,
especially as it appears to have a religious justification in his
mind.

I've visited the USA several times over the past few years since the
Iraq business started and I've heard much criticism of your
Republican government. Bush does not have the whole nation behind him
as he likes to think.

Peter, G3PHO

4603. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 03:11:08 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <43a08cd1.137318052@news.blueyonder.co.uk>
Source record: 66649
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Mon, 12 Dec 2005 20:19:10 +0000, "M. J. Powell"
<mike@pickmere.demon.co.uk> wrote:

>In message <439dccd3.22632213@news.blueyonder.co.uk>, Peter
><microwaves@blueyonder.co.uk> writes
>>On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
>><magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>>
>>>England is still a mainly white Christian Country..
>>
>>What ever gave you that idea??? A very small percentage of the
>>population go to church in the UK. The rest have more sense.
>
>More people go to church than go to football matches.

SO ??? I'll bet more people go shopping on Sunday than go to church.

...and I'm not sure you're correct in your assumption

4604. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 03:13:34 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <43a18d37.137420350@news.blueyonder.co.uk>
Source record: 66650
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

On Mon, 12 Dec 2005 18:48:15 -0500, Amos Keag <A.K01@comcast.net>
wrote:

>Peter wrote:
>> On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
>> <magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>>
>>
>>>>England is still a mainly white Christian Country..
>>
>>
>> What ever gave you that idea??? A very small percentage of the
>> population go to church in the UK. The rest have more sense.
>
>Peter, I'll remember you in prayers and at my masses.
OH... so you assume I am an atheist.? How wrong can you be! However
I like to think for myself rather than be brainwashed by some guy in
fancy robes.... especially the brand that do Mass :-)

4605. Re: Antenna Modeling (dumb question#305)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 04:00:18 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11pv66m4hh2qg6b@corp.supernews.com>
Source record: 66651

If you have let the left wingers frighten you into saying "happy
hollidays" instead of "merry Christmas"man, I feel for you.

Jim - NN7K wrote:
> Hi.all, and BTW, Happy Holidays! Am attempting to model
> a "Cushcrunch" A-627013, yagi and have it all but written,
> and modeled what I have of it-- It is a 70 cm, with 6 and 2
> meter yagis, the 6 meter horizontally polarized, both the
> 2 and 70 cm are vertically polarized, on the same boom, ofset
> by aprox 1 inch , and the beast is mounted on a mast, 6 inch
> from the two meter reflector. This is the first time attempted
> modeling a multi band antenna, especially with the mast in the
> same plane as the yagi. My question is 2 fold: 1; Given it is
> behind the reflector, just how much diff does THAT add to the
> pattern of the antenna, and 2; If it does, just HOW LONG an
> element would this represent?? The mast length? and for the
> small portion of mast, ABOVE the mast clamp?? Just curious
> as to the effect it has . Your thoughts , please. Jim NN7K

4606. Re: Antenna Modeling (dumb question#305)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 04:11:53 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <9YSdnS1WJociBwLenZ2dnUVZ_sudnZ2d@adelphia.com>
Source record: 66652

Butch Magee wrote:
> If you have let the left wingers frighten you into saying "happy
> hollidays" instead of "merry Christmas"man, I feel for you.

Why? "Happy holiday" means have a happy holy day. It came from the time when the only celebrations were the High Holy days of the Catholic church. Nothing PC about it. Unless PC stands for pretty Catholic.

4607. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 04:29:31 UTC
From: Mexicana Aeronáutica y Spacia Administraci ón <webmaestro@masa.gob.mx>
Message-ID: <LcNnf.41292$6e1.10364@newssvr14.news.prodigy.com>
Source record: 66653
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Peter wrote...
> On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
> <magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>
>
>>England is still a mainly white Christian Country..
>
>
> What ever gave you that idea??? A very small percentage of the
> population go to church in the UK. The rest have more sense.

I think he may be using the tradition of defining a person's religion by what his parents' religion was. In other words, xians claim all babies born to xian parents, even though the parents may not even have been particularly religious and were simply born to parents who also were claimed by the xian church. Same with moozlums, any baby unfortunate to be born into that cult is claimed as a member for life.

BTW, I was born to xian parents who also claimed me for their cult and the defining moment in my life was when they coerced me into joining their church at age 13. I haven't been to church since, and share Marilyn Manson's hope that I'll be remembered as the person who brought an end to xianity.

Hail Satan!

4608. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 04:34:34 UTC
From: Mexicana Aeronáutica y Spacia Administraci ón <webmaestro@masa.gob.mx>
Message-ID: <uhNnf.41295$6e1.13076@newssvr14.news.prodigy.com>
Source record: 66654
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Amos Keag wrote...
> Peter wrote:
>
>> On Sun, 11 Dec 2005 13:09:35 -0000, "The Magnum"
>> <magnum@NOSPAMmag2781.freeserve.co.uk> wrote:
>>
>>
>>> England is still a mainly white Christian Country..
>>
>>
>>
>> What ever gave you that idea??? A very small percentage of the
>> population go to church in the UK. The rest have more sense.
>
>
> Peter, I'll remember you in prayers and at my masses.

"Even though the god in all of these religions is basically the
same, each regards the way chosen by the others as reprehensible,
and to top it all, religionists actually PRAY for one another!
They have scorn for their brothers of the right-hand path because
their religions carry different labels, and somehow this animosity
must be released. What better way than through 'prayer'! What a
simperingly polite way of saying: 'I hate your guts,' is the
thinly disguised device known as praying for your enemy! Praying
for one's own enemy is nothing more than bargain-basement anger,
and of a decidedly shoddy and inferior quality!"
-- Anton LaVey; "The Satanic Bible"

4609. Yaesu FT-101 Series Service Manual on sale.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 11:38:55 UTC
From: F7 <nondol@mail.it>
Message-ID: <43a004a4$0$347$5fc30a8@news.tiscali.it>
Source record: 66655
Cross-posted to: nl.radio.amateur,rec.radio.amateur.antenna

http://cgi.ebay.it/ws/eBayISAPI.dll?ViewItem&rd=1&item=5841225485&ssPageName
=STRK:MESE:IT

4610. Re: Yaesu FT-101 Series Service Manual on sale.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 11:57:20 UTC
From: Vonkenboer <vonkenboer2004-spam-@hotmail.com>
Message-ID: <mn.73097d5c73344edb.19251@hotmail.com>
Source record: 66656
Cross-posted to: nl.radio.amateur,rec.radio.amateur.antenna

F7 formuleerde op woensdag :
> http://cgi.ebay.it/ws/eBayISAPI.dll?ViewItem&rd=1&item=5841225485&ssPageName
> =STRK:MESE:IT

Toe maar, bij mods.dk is deze gratis.
Free for download at mods.dk

4611. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 13:45:57 UTC
From: Dimitris <dilkinis@ee.duth.gr>
Message-ID: <1134567957.243399.241100@g47g2000cwa.googlegroups.com>
Source record: 66657

O/H Richard Clark έγραψε:
> On 12 Dec 2005 11:32:59 -0800, "Dimitris" <dilkinis@ee.duth.gr> wrote:
>
> >I look forward to hear proposals and advices in order to decrease SWR.
> >Are there any standard transmission lines at the market with Zo
> >aproximatelly
> >to my input resistance so I can recalculate SWR with better results?
> >
> >I ask apologize for any mistakes and for my poor english
> >as it is not my native language.
> >
> >Thank you in advance
>
>
> Hi Dimitris,
>
> Your English is very good. One question: What is it you want to
> achieve that only this antenna can do?
>
> 73's
> Richard Clark, KB7QHC

Mr Richard

Thank you for your time and for the copliment.

First of all, I don't have many expectations
from this antenna. Its geometry has been chosen
somehow randomly.

The profit that we wish to gain from all this
is simply to be delighted in the procedure
of designing, simulating, improving and making conclusions
about an antenna.
If the antenna seems to have interesting
characteristics which can bee useful at certain
applications, so much the better.

We are post-graduate electrical engineering students.
Unfortunatelly, where we come from, there is not too much
effort for research and for developing realistic and applicable
technology products inside our universities.
Therefore, we are just trying to do this
mainly for educational purposes.

I am looking forward for your proposals and advices.

Dimitris I.

4612. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 14:39:54 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <ofadnew7Prglsz3enZ2dnUVZ_tGdnZ2d@comcast.com>
Source record: 66658
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Peter wrote:
>
>
> OH... so you assume I am an atheist.? How wrong can you be! However
> I like to think for myself rather than be brainwashed by some guy in
> fancy robes.... especially the brand that do Mass :-)

When I wear my robes at Mass I'll still pray for you. There's nothing
you can do about it.

4613. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 14:56:33 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <H8KdnUD5gYY9rz3eRVn-uA@comcast.com>
Source record: 66659
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Peter wrote:

SNIPPED
>
> I've visited the USA several times over the past few years since the
> Iraq business started and I've heard much criticism of your
> Republican government. Bush does not have the whole nation behind him
> as he likes to think.
>
> Peter, G3PHO

Peter, you have to understand a subtlety of the USA government. Even though some members of the Congress criticize the President publically for the IRAQ war, the Congress actually controls the war. They pay for it!! The Congressional criticism is simply to posture for votes in the next election.
- - - - -
Reference: US Constitution Article 1, Section 7 Clause 1:

"All Bills for raising Revenue shall originate in the House of Representatives; but the Senate may propose or concur with Amendments as on other Bills."
- - - - -

If the Congress was really interested in bringing the USA troops home all they have to do is stop the funding.

The most powerful person in Washington DC is NOT the President!! It is the Speaker of the House of Representatives. Why? Because ALL SPENDING [$$$$$$] authorizzation MUST initiate in the House of Representatives. The Speaker of the House assigns committee membership. The committees establish and implement policy by how they authorize spending. The full Congress votes on and approves how the money will be spent!

So, IRAQ is NOT Bush's war! It is a USA war. It is bought and paid for by the representatives of the people. And the people are NOT unanimous but are a majority. That disagreement is the basic strength of the USA form of government. I can criticize my government as a political right.

4614. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 15:40:07 UTC
From: Dimitris <dilkinis@ee.duth.gr>
Message-ID: <1134574806.988737.149000@o13g2000cwo.googlegroups.com>
Source record: 66660

Dear Dan

You are right at all your points.
I have answered to Mr Richard
and I don't want to repeat myself.

However, I can tell you that there wasn't
any preceded and detailed consideration
about certain constraints, requirements or parameters
for the present aerial in order to be used in specific applications.

The aerial was chosen somehow randomly,
just to "investigate" if this thing "plays" and
how it "plays".

However I have to confess -and actually
I am not too proud about this- that our
educational level and our minimal almost non existent
technical and practical experience
concerning telecommunication and wave propogation matters
cannot allow us to bother with such "complicated" issues.

However, we are wandering into this because:
1) we need to apply our theoritical framework and create
something which may not be very important or useful from
practical point of view but maybe will make us feel
somehow satisfied for that we created something real
2) we may like it

Finally,I suppose that it is uninteresting
for you to be concerned with this matter which hasn't
any practical application.
I will comprehend the reasons
if nobody deals with this post.

However, I will continue to give you
new results about this essay and set
new questions.

With regards

Dimitris I.

4615. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 15:53:14 UTC
From: Dimitris <dilkinis@ee.duth.gr>
Message-ID: <1134575594.448347.204420@z14g2000cwz.googlegroups.com>
Source record: 66661

Mr Dave

Can you mention the process that you followed
(programs that you used, in what frequency, wire's radius,
value for the conductivity etc)
in order to make this analysis?

I am surpised that you've found this value
for the input impedance, which is so different
from the one I calculated.

Finally, can you explain what you mean by
finding 93.1% resonance of the antenna?

Dimitris I.

4616. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 17:25:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <99i0q19il52rfc4o47tl4fgilk56famst3@4ax.com>
Source record: 66662

On 14 Dec 2005 05:45:57 -0800, "Dimitris" <dilkinis@ee.duth.gr> wrote:
>First of all, I don't have many expectations
>from this antenna. Its geometry has been chosen
>somehow randomly.

Hi Dimitris,

So, what we would call an object lesson.

>We are post-graduate electrical engineering students.
>Unfortunatelly, where we come from, there is not too much
>effort for research and for developing realistic and applicable
>technology products inside our universities.
>Therefore, we are just trying to do this
>mainly for educational purposes.

This is also the purpose of this group.

>I am looking forward for your proposals and advices.

Beginning with a complex shape may introduce too many variables. This
can make it difficult to judge what is important. However, if you
wish to explore along these lines, you should also include a reference
to compare to. Also, you should attempt to make variations to your
design and compare among them as well. Take care to make the
variations small and then progressively larger so changes do not occur
suddenly.

73's
Richard Clark, KB7QHC

4617. Re: Coax recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 17:30:34 UTC
From: Dan Richardson <>
Message-ID: <hfl0q15m4qc5ddmb7rfpff923q39bp86ee@4ax.com>
Source record: 66663

On Tue, 13 Dec 2005 00:26:25 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>>>Have you compared the results to any measurements of real cables?
>>>
>>>Roy Lewallen, W7EL
>>
>>
>> ==
>>
>> Yes, Roy. Countless times.
>>
>> Have you any more questions?
>> ----
>> Reg, G4FGQ
>
>Yes. Where can I buy some of that RG-58 that has only 2.2 dB/100 foot
>loss, or RG-213 that has only 0.89 dB loss, at 50 MHz?
>
>Roy Lewallen, W7EL

The silence is deafening.

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

4618. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 17:56:57 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnpmaoemh1@news7.svr.pol.co.uk>
Source record: 66664
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Amos Keag" <A.K01@comcast.net> wrote in message
news:ofadnew7Prglsz3enZ2dnUVZ_tGdnZ2d@comcast.com...
> Peter wrote:
> >
> >
> > OH... so you assume I am an atheist.? How wrong can you be! However
> > I like to think for myself rather than be brainwashed by some guy in
> > fancy robes.... especially the brand that do Mass :-)
>
> When I wear my robes at Mass I'll still pray for you. There's nothing
> you can do about it.

Pray for me to win the lottery please :O)

Regards,
Graham
--
_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4619. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 18:00:31 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnpmhe$s3n$1@news8.svr.pol.co.uk>
Source record: 66665
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Same with moozlums, any baby unfortunate to be born
> into that cult is claimed as a member for life.

Unless they are captured doing something naughty whan abroad then they swear
they are Englishmen and demand Tony Blair help them :o)

> BTW, I was born to xian parents who also claimed me for their
> cult and the defining moment in my life was when they coerced
> me into joining their church at age 13. I haven't been to
> church since, and share Marilyn Manson's hope that I'll be
> remembered as the person who brought an end to xianity.
>
> Hail Satan!

I doubt you'll be remembered for that :oP

Regards,
Graham
--
_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4620. New FT-990 Group

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 18:38:41 UTC
From: jiinks <office@jiinks.co.uk>
Message-ID: <43a066ab$0$82664$ed2619ec@ptn-nntp-reader03.plus.net>
Source record: 66666
Cross-posted to: rec.ham-radio,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur,zetnet.interests.amateur-radio

Just to let everyone know that a new Yahoo group has been set up for owners of the Yaesu FT-990.

To visit your group on the web, go to:

http://groups.yahoo.com/group/ft_990/

Jon G2FHF

4621. Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 19:37:27 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns972C7679985B8spectrumhogstarbandn@198.186.192.196>
Source record: 66667

Short of having a machinist build me some, can anyone advise where I might be able to buy this part for a home made antenna project....

I need an addapter that is 3/8" x 24 thread on one end, and a 1/2" tube on the other... to fit over 1/2" fiberglass rod. I can use 3/8" to 5/8" rod diameters to meet this part specs, if necessary.

Stainless steel or brass would be fine.

Ed K7AAT

4622. moparholic at hotmail dot com loves men in truckstop toilets

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 22:30:55 UTC
From: moparholic at hotmail dot com is a sissy <keyklownzrnutjobs@yahoo.com>
Message-ID: <1134599454.929089.225360@g47g2000cwa.googlegroups.com>
Source record: 66668
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Steveo wrote, while stroking his wand and praying to watch gay porno
flix:
> Hey fucknut, newsreader.com is not my isp. Pull your head out of your
> lardass.

Why, so you can lick his face and his piles?

4623. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 22:32:58 UTC
From: moparholic at hotmail dot com is a sissy <keyklownzrnutjobs@yahoo.com>
Message-ID: <1134599578.663161.146550@o13g2000cwo.googlegroups.com>
Source record: 66669
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

gay mparholic's ISP is Valley Internet

4624. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 23:38:56 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <cY2dnQIlc9uTMD3eRVn-gA@comcast.com>
Source record: 66670
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

The Magnum wrote:
> "Amos Keag" <A.K01@comcast.net> wrote in message
> news:ofadnew7Prglsz3enZ2dnUVZ_tGdnZ2d@comcast.com...
>
>>Peter wrote:
>>
>>>
>>> OH... so you assume I am an atheist.? How wrong can you be! However
>>>I like to think for myself rather than be brainwashed by some guy in
>>>fancy robes.... especially the brand that do Mass :-)
>>
>>When I wear my robes at Mass I'll still pray for you. There's nothing
>>you can do about it.
>
>
> Pray for me to win the lottery please :O)
>
> Regards,
> Graham

You have to watch the movie "Bruce Almighty". I did that once! 14,000
winners of $17 each or something like that :-0

4625. Classic Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 23:52:00 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <s7mdnb4QJ-KBLT3enZ2dnUVZ_tydnZ2d@comcast.com>
Source record: 66671

Hello,

Have just started reading about, and studying antennas.

Simple question regarding the classic dipole for receiving (although I imagine it's exactly the same for transmitting):

Hope I can explain my question clearly:

I understand that If the dipole is fed with coax, one leg is tied to the outer coax shield.

Regarding the end at the radio -

Is the coax shield "always" tied directly to the radio's chassis ground, (which is also earth ground for my set) ?

Or, are the outer and inner coax conductors sometimes fed into an isolation transformer, and therefore the coax shield would not connect directly to the radio chassis ?

Thanks,
B.

4626. Re: Classic Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-14 23:58:47 UTC
From: dplatt@radagast.org
Message-ID: <11q1cdnoe7rr087@corp.supernews.com>
Source record: 66672

>I understand that If the dipole is fed with coax, one leg is tied to the
>outer coax shield.
>
>Regarding the end at the radio -
>
>Is the coax shield "always" tied directly to the radio's chassis ground,
>(which is also earth ground for my set) ?

This is almost always the case. The coax shield may also be grounded
at one or more locations between the antenna and the radio chassis
(e.g. where it enters the building), for both RF-grounding and
lightning-safety-grounding reasons.

>Or, are the outer and inner coax conductors sometimes fed into an
>isolation transformer, and therefore the coax shield would not connect
>directly to the radio chassis ?

This can be done (with an isolated "unun" transformer) but it is
rarely done.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4627. Re: Classic Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 00:24:13 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <6bd1q1pelotmqqc486m5squ0naje23pihg@4ax.com>
Source record: 66673

On Wed, 14 Dec 2005 18:52:00 -0500, "Robert11" <rgsros@notme.com>
wrote:

>Hello,
>
>Have just started reading about, and studying antennas.
>
>Simple question regarding the classic dipole for receiving (although I
>imagine it's exactly the same for transmitting):
>
>Hope I can explain my question clearly:
>
>I understand that If the dipole is fed with coax, one leg is tied to the
>outer coax shield.

The coax shield does not *have* to be tied to one leg of the dipole, a balun could be used to connect the unbalanced transmission line to the approximately balanced load. A balun is a device which accomodates the transition from balanced to unbalanced or vice versa, without significantly disturbing either environment.

If the coax shield is directly connected to one leg of the dipole (and that is often done), the coax doesn't just provide a means for transferring energy from the feed point to the receiver (using the outside of the inner conductor and the inside of the outer conductor), but the outside of the outer conductor is now connected at one end to the dipole leg, and it and everything connected to it forms part of the receiving antenna itself.

The ins and outs of it!

Owen
--

4628. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 00:57:23 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43A0BF7B.542367F9@shaw.ca>
Source record: 66674

Ed wrote:
>
> Short of having a machinist build me some, can anyone advise where I
> might be able to buy this part for a home made antenna project....
>
> I need an addapter that is 3/8" x 24 thread on one end, and a 1/2"
> tube on the other... to fit over 1/2" fiberglass rod. I can use 3/8" to
> 5/8" rod diameters to meet this part specs, if necessary.
>
> Stainless steel or brass would be fine.
>
> Ed K7AAT

Buy a long 3/8"x24 bolt, hacksaw off the head, then expoxy some pipe with
1/2" inside diam in over the end. Make sure the part extending into the
pipe is long enough.

Irv VE6BP (Not a machinist, just an idea as to how I'd do it)
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4629. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 02:09:32 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns972CB8F3F4901spectrumhogstarbandn@198.186.192.196>
Source record: 66675

> Buy a long 3/8"x24 bolt, hacksaw off the head, then expoxy some pipe
> with 1/2" inside diam in over the end. Make sure the part extending
> into the pipe is long enough.

Thanks, Irv. Possibly workable for me, but the threaded end needs good RF continuity to the 1/2" tube end, which will be soldered to a helical winding running up the fiberglass rod.

Ed

4630. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 04:06:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <YY5of.32429$dO2.22913@newssvr29.news.prodigy.net>
Source record: 66526

Ed wrote:
> Thanks, Irv. Possibly workable for me, but the threaded end needs good
> RF continuity to the 1/2" tube end, which will be soldered to a helical
> winding running up the fiberglass rod.

Connect the helical winding to a 3/8" automotive lug and slip it over
the 3/8" threaded section.
--
73, Cecil http://www.qsl.net/w5dxp

4631. Re: Classic Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 04:40:36 UTC
From: richardharrison@webtv.net
Message-ID: <26465-43A0F3C4-117@storefull-3254.bay.webtv.net>
Source record: 66528

B. wrote:
"Is the coax shield "always" tied directly to the radio chassis ground,
(which is also earth ground for my set)?"

"Always" may embrace too much. Usually, the coax shield is almost
directly connected to the radio chassis ground.

B already implied that his dipole has a potential problem as its
connection to the grounded inner surface of the coax shield is shared at
this point by connection to the outer surface of the same coax shield.
This inherently unbalnces the load on the inner surfaces of the coax.
The center conductor has only one load, its half of the dipole. The
inner surface of the coax shield has two loads, its half of the dipole
and the outer surface of the coax.. This is fixed by by a balun between
the balanced dipole and the unbalanced coax.

On the other hand, you may have no objection to distortion of the
dipole`s pattern by radiation from the coax exterior. In some cases it
won`t hurt. In other cases it may be beneficial. It is somewhat
unpredictable, but many dipoles are directly fed by coax and are
satisfactory.

Best regards, Richard Harrison, KB5WZI

4632. Re: Presenting D-Dimond1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 04:41:57 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns972CD28E99E69doldridgsprintca@64.59.135.159>
Source record: 66527

"Dimitris" <dilkinis@ee.duth.gr> wrote in news:1134575594.448347.204420
@z14g2000cwz.googlegroups.com:

> Mr Dave
>
> Can you mention the process that you followed
> (programs that you used, in what frequency, wire's radius,
> value for the conductivity etc)
> in order to make this analysis?
>
> I am surpised that you've found this value
> for the input impedance, which is so different
> from the one I calculated.
>
> Finally, can you explain what you mean by
> finding 93.1% resonance of the antenna?

I modelled it in MMANA (I said poor tools, remember), using the standard
.8mm wires and free space (no ground).

Then I moved the frequency and recalculated the pattern and impedance
until it became resistive at the terminals. That happened at a frequency
93.1% of what the full quarter-wave frequency would have been. And at
that frequency, the impedance was a resistive 75 ohms. In other words,
it resonates lower than the design frequency (hence the lower
resistance).

I started with 900mhz and ended up with 837.9, if I remember. I didn't
save it.

--
Dave Oldridge+
ICQ 1800667

4633. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 05:28:15 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns972CDAA51EB1Aspectrumhogstarbandn@198.186.192.196>
Source record: 66529

>
> Connect the helical winding to a 3/8" automotive lug and slip it over
> the 3/8" threaded section.

That will work, Cecil. Especially is I run a nut up on it to tighten on
the lug. Thanks.

Ed

PS: Am still looking for the one that antenna manufacturers use, though.

4634. Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 06:32:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnr2lflak1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66530

It may be recalled I recently reported an error in program GRNDWAV3
which deals with groundwave propagation from a short vertical antenna
versus frequency and type of terrain.

Although the field strength at the receiving site was correctly
computed, the available receiver input power was exactly 6 dB greater
than it should be.

The error was due to a misunderstanding of vertical antenna gain
relative to an isotrope when mounted above a groundplane. It appears
some of the learned text books are unclear on this point.

My immediate problem was eventually sorted out by Roy and proved by
EZNEC-type programs which are not interested in man-made notions about
antenna gain and isotropes.

The faulty program has now been replaced by program GRNDWAV4 which
makes no use of antenna gains at either end of the path. Download it
and delete the older version.

I am grateful to Icelandic radio amateur, Villi, TF3DX for informing
me of the error. He went back to fundamental principles to prove me
wrong. I have no idea what aroused his suspicions and we are not in
contact with each other at present. He said he intended to write a
paper on the subject.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4635. Re: Yaesu FT-101 Series Service Manual on sale.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 10:11:28 UTC
From: F7 <nondol@mail.it.invalid>
Message-ID: <43a14389$0$338$5fc30a8@news.tiscali.it>
Source record: 66531
Cross-posted to: nl.radio.amateur,rec.radio.amateur.antenna

"Vonkenboer" <vonkenboer2004-spam-@hotmail.com> ha scritto nel messaggio
news:mn.73097d5c73344edb.19251@hotmail.com...
> F7 formuleerde op woensdag :
> >
http://cgi.ebay.it/ws/eBayISAPI.dll?ViewItem&rd=1&item=5841225485&ssPageName
> > =STRK:MESE:IT
>
> Toe maar, bij mods.dk is deze gratis.
> Free for download at mods.dk

On the web you can see young nude girls for free, but is not as
have her onto your hands nor in you bed.
;-)))

4636. Re: Yaesu FT-101 Series Service Manual on sale.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 10:57:07 UTC
From: Vonkenboer <vonkenboer2004-spam-@hotmail.com>
Message-ID: <mn.7acd7d5c684f1e94.19251@hotmail.com>
Source record: 66532
Cross-posted to: nl.radio.amateur,rec.radio.amateur.antenna

Na rijp beraad schreef F7 :
> "Vonkenboer" <vonkenboer2004-spam-@hotmail.com> ha scritto nel messaggio
> news:mn.73097d5c73344edb.19251@hotmail.com...
>> F7 formuleerde op woensdag :
>>> http://cgi.ebay.it/ws/eBayISAPI.dll?ViewItem&rd=1&item=5841225485&ssPageName
>>> =STRK:MESE:IT
>>
>> Toe maar, bij mods.dk is deze gratis.
>> Free for download at mods.dk
>
> On the web you can see young nude girls for free, but is not as
> have her onto your hands nor in you bed.
> ;-)))

LOL, I never tried to print those out :-))

Mark

4637. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 13:45:17 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Nreof.154384$S4.19705@edtnps84>
Source record: 66533

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:dnr2lflak1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com...
> It may be recalled I recently reported an error in program GRNDWAV3
> which deals with groundwave propagation from a short vertical antenna
> versus frequency and type of terrain.
>
> Although the field strength at the receiving site was correctly
> computed, the available receiver input power was exactly 6 dB greater
> than it should be.
>
> The error was due to a misunderstanding of vertical antenna gain
> relative to an isotrope when mounted above a groundplane. It appears
> some of the learned text books are unclear on this point.
>
> My immediate problem was eventually sorted out by Roy and proved by
> EZNEC-type programs which are not interested in man-made notions about
> antenna gain and isotropes.
>
> The faulty program has now been replaced by program GRNDWAV4 which
> makes no use of antenna gains at either end of the path. Download it
> and delete the older version.
>
> I am grateful to Icelandic radio amateur, Villi, TF3DX for informing
> me of the error. He went back to fundamental principles to prove me
> wrong. I have no idea what aroused his suspicions and we are not in
> contact with each other at present. He said he intended to write a
> paper on the subject.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp

Thanks Reg. My NEC2 agreed with your previous program, so do not know where
I went wrong. Will try and figure it out.

Regards,

Frank

4638. Re: N8WWM COWERING KEYBOARD SISSY

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 14:34:20 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051215093420.036$yd_-_@newsreader.com>
Source record: 66534
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"moparholic at hotmail dot com is a sissy" <keyklownzrnutjobs@yahoo.com>
wrote:
> gay mparholic's ISP is Valley Internet
>
Nope, Adelphia just like always.

N8WWM's a tough guy in front of a monitor.

N8WWM's a hunch backed cowering sissy in front of me.

http://n8wwm.4t.com

4639. Re: moparholic at hotmail dot com loves men in truckstop toilets

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 14:36:17 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20051215093617.895$Rc@newsreader.com>
Source record: 66535
Cross-posted to:
alt.dogie.is.an.idiot,alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

N8WWM@arrl.net posting as "moparholic at hotmail dot com is a sissy"
<keyklownzrnutjobs@yahoo.com> wrote:
> Steveo wrote, while stroking his wand and praying to watch gay porno
> flix:
> > Hey fucknut, newsreader.com is not my isp. Pull your head out of your
> > lardass.
>
> Why, so you can lick his face and his piles?
>
N8WWM's a tough guy in front of a monitor.

N8WWM's a hunch backed cowering sissy in front of me.

http://n8wwm.4t.com

4640. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 15:03:00 UTC
From: richardharrison@webtv.net
Message-ID: <27842-43A193B4-186@storefull-3251.bay.webtv.net>
Source record: 66537

Roy Lewallen, W7EL wrote:
"A short while ago, I explained why your Faraday cage doesn`t separate E and H as you claim."

There are many examples of Faraday screens at work removing the E field while allowing H field coupling. I chose the Faraday sdreens in medium wave broadcasting used to reduce radiation of harmonics of the channel frequency.

More numerous examples abound. These are the Faraday screens used in isolation power transformers between primary and secindary coils to prevent transient high-frequency energy coupling.

My 19th edition of the ARRL Antenna Book contains yet another example on page 14-2 which says:
"Fig 2 - Shielded loop for direction finding.
The ends of the shielding turn are not connected, to prevent shielding the loop from magnetic fields. The shield is effective against electric fields.

Best regards, Richard Harrison, KB5WZI

4641. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 15:15:54 UTC
From: richardharrison@webtv.net
Message-ID: <12709-43A188AA-141@storefull-3253.bay.webtv.net>
Source record: 66536

Roy, W7EL wrote:
"If the wavelength is >> 1m, the voltage induced in the center of an open-circuited 1m dipole by a 1V/m field is 0.5 volt, not 1 volt."

An open-circuited dipole (has a small gap in its middle) is mot resonnant at a wavelength of 2 meters, but its individual pieces are resonant at a wavelength of 1 meter. At 2 meters, not a wavelength >> 1m, each 0.5 m piece of the half-wavelength, 1 meter long dipole has a high reactance because 0.5 m is too short at a wavelength of 2 meters to be resonant. At longer wavelengths, the reactance rises.. High reactance does not oppose non-existing current in an open-circuit.

I agree the voltage induced in 1/2-meter of wire properly placed within a 1V/m uniform field is 0.5 volt, not 1 volt. The induced voltage in a wire within a uniform field sweeping the wire rises uniformly along the wire. It can be assumed to be the summation of tiny increments of voltage all along the wire. The voltages of the too-short dipole halves add just as two cells in some flashlights add. Their vectors are head to tail. But, current will be limited by radiation and loss resistances of the wires. It will also be limited by reactance in the wires. Open-circuit, 0.5 V + 0.5 V = 1V.

Best regards, Richard Harrison, KB5WZI

4642. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 16:47:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dns6n4hdk1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66538

Richard (Harrison),

What is the voltage measured between the bottom end and ground, of a 1 metre high vertical antenna, above a perfect ground, when the vertically-polarised field strength is 1 volt per metre, and antenna height is shorter than a 1/4-wavelength.

Just a number please.

Reg.

4643. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 17:52:35 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1134669154.987966.56010@g43g2000cwa.googlegroups.com>
Source record: 66539

Do you ever get to Central Oregon? Or send a drawing with dimensions.
Like how long is the threaded portion? How long is the tube part? If
you can make to Redmond, I will volunteer to make it for you.

Paul, KD7HB

4644. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 17:55:39 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnsaka$9dc$1@newsg2.svr.pol.co.uk>
Source record: 66540
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Amos Keag" <A.K01@comcast.net> wrote in message
news:cY2dnQllc9uTMD3eRVn-gA@comcast.com...
> The Magnum wrote:
> > "Amos Keag" <A.K01@comcast.net> wrote in message
> > news:ofadnew7Prglsz3enZ2dnUVZ_tGdnZ2d@comcast.com...
> >
> >>Peter wrote:
> >>
> >>>
> >>> OH... so you assume I am an atheist.? How wrong can you be! However
> >>>I like to think for myself rather than be brainwashed by some guy in
> >>>fancy robes.... especially the brand that do Mass :-)
> >>
> >>When I wear my robes at Mass I'll still pray for you. There's nothing
> >>you can do about it.
> >
> >
> > Pray for me to win the lottery please :O)
> >
> > Regards,
> > Graham
>
> You have to watch the movie "Bruce Almighty". I did that once! 14,000
> winners of $17 each or something like that :-0

Yes I saw that film. Quite funny in places although i dont really like Jim
Carey. BUT..... as he's only praying for me to win the lottery I might be
ok ;o)

Regards,
Graham

--
-.-. ---. .-. .- --. .. - - -

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4645. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 17:56:08 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <15cc4$43a1ae47$97d56a33$1932@ALLTEL.NET>
Source record: 66541

The ham spirit is still alive and well. Great to know hams are still willing
to lend a hand to a brother ham.

You are to be commended!

<pdrahn@coinet.com> wrote in message
news:1134669154.987966.56010@g43g2000cwa.googlegroups.com...
> Do you ever get to Central Oregon? Or send a drawing with dimensions.
> Like how long is the threaded portion? How long is the tube part? If
> you can make to Redmond, I will volunteer to make it for you.
>
> Paul, KD7HB
>

4646. Re: Classic Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 18:35:32 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <ejd3q15kv5u7m70p2gvqpgste87ceb7ua2@4ax.com>
Source record: 66543

On Wed, 14 Dec 2005 23:58:47 -0000, dplatt@radagast.org (Dave Platt) wrote:

>and the radio chassis
>(e.g. where it enters the building), for both RF-grounding and
>lightning-safety-grounding reasons.

~~~~~~

As has been explained here many times before, you can not "RF ground" your coax in the sense of connecting it to earth ground. The wavelength of the ground wire prevents a true ground from happening.

You do need a safety ground (for the AC mains) and a "ground" to your radio chassis, but that's all. I put "ground" in quotes because it isn't really connected to earth. The word "common" would be more accurate, but most hams think of their chassis as "ground". So be it, as long as the true condition is understood.

73, Bill W6WRT
~~~~~~

4647. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 18:46:37 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns972D6DDF0DFE7spectrumhogstarbandn@198.186.192.196>
Source record: 66542

> Do you ever get to Central Oregon? Or send a drawing with dimensions.
> Like how long is the threaded portion? How long is the tube part? If
> you can make to Redmond, I will volunteer to make it for you.
>
> Paul, KD7HB

Thanks, Paul. Your reply is appreciated, as Fred mentioned. There actually may be a time next Summer when we might get over there. Sister in Law lives in Prineville. We were in Redmond for that big RV convention this past summer, but didn't spend any time looking around town. I'll keep your callsign/email in case we do get there again this coming year.

I take it you're a machinist? Maybe, after the Holidays, I'll contact you by email and discuss this again... I may be able to email you pictures or drawings of what I'm looking for when I get a chance, to get your opinion on what I'm looking for..

Ed

4648. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 19:02:29 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <GcednaPOfZAqIDzenZ2dnUVZ_tKdnZ2d@web-ster.com>
Source record: 66544

Irv Finkleman wrote:

> Ed wrote:
>
>> Short of having a machinist build me some, can anyone advise where I
>>might be able to buy this part for a home made antenna project....
>>
>> I need an addapter that is 3/8" x 24 thread on one end, and a 1/2"
>>tube on the other... to fit over 1/2" fiberglass rod. I can use 3/8" to
>>5/8" rod diameters to meet this part specs, if necessary.
>>
>> Stainless steel or brass would be fine.
>>
>> Ed K7AAT
>
>
> Buy a long 3/8"x24 bolt, hacksaw off the head, then expoxy some pipe with
> 1/2" inside diam in over the end. Make sure the part extending into the
> pipe is long enough.
>
> Irv VE6BP (Not a machinist, just an idea as to how I'd do it)

As a modification to this, since you can stand 1/2 inch thread, how about using a 1/2 inch bolt and brazing or silver soldering some 1/2 inch ID tube over it? Not only will this be easier than trying to center the 3/8 and potentially stronger than epoxy, but it would keep that RF continuity.

This is the sort of part that's expensive to turn out as a one-off part, but very easy to manufacture on an NC lathe -- even a cam-driven automatic screw machine would handle this with ease. Because of this I suspect that there aren't any on the open market; rather a manufacturer would just send drawings to their favorite screw machine place to have them made 10000 at a time.

It's also the sort of part that's fun to make in limited quantity -- it looks pretty, you get to practice your threading, yet its not too critical. So you might want to take up Paul's offer, perhaps with a nice drawing. Just don't ask him to make too many.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4649. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 19:04:52 UTC
From: richardharrison@webtv.net
Message-ID: <7808-43A1BE54-299@storefull-3257.bay.webtv.net>
Source record: 66545

Reg, G4FGQ wrote:
"What is the voltage measured between the bottom end and ground of a 1 metre high vertical antenna above a perfect ground when the verticallly-polarized field strength is 1 volt per metre, and antenna height is shorter than a 1/4-wavelength?"

I see no tricks in the question. The field strength is given as "1 volt per metre".

From page 23-3 of the 19th edition of the ARRL Antenna Book:
"The standard of measure for field intensities is the voltage developed in a wire that is 1 meter long, expressed as volts per meter."

While field strength is not the same as the volts delivered to a receiver, because of the voltage division between antenna impedance and receiver input impedance, there is no voltage division when the antenna is loaded with an open circuit. We assume the r-f voltmeter used to measure voltage at the base of the antenna has an infinite input impedance. The antenna used for field strength measurements is often a loop, but we are not concerned with the measurement itself. Reg had a very simple question, "What`s the voltage at the base of a 1-meter high wire?

The voltage at the base of an open-circuit 1-metre wire iis one volt because it goes straight to the definition of field intensity in volts/m.

Best regards, Richard Harrison, KB5WZI

4650. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 19:34:36 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns972D76020E5EAspectrumhogstarbandn@198.186.192.196>
Source record: 66546

Good information, (below), thanks. On the issue of availability, though, I have to wonder why they would NOT be available for sale? Obviously, certain manufacturers of the multitude of ham-stick type antennas use them. There must be a large scale source, somewhere!

Ed

> As a modification to this, since you can stand 1/2 inch thread, how
> about using a 1/2 inch bolt and brazing or silver soldering some 1/2
> inch ID tube over it? Not only will this be easier than trying to
> center the 3/8 and potentially stronger than epoxy, but it would keep
> that RF continuity.
>
> This is the sort of part that's expensive to turn out as a one-off
> part, but very easy to manufacture on an NC lathe -- even a cam-driven
> automatic screw machine would handle this with ease. Because of this
> I suspect that there aren't any on the open market; rather a
> manufacturer would just send drawings to their favorite screw machine
> place to have them made 10000 at a time.
>
> It's also the sort of part that's fun to make in limited quantity --
> it looks pretty, you get to practice your threading, yet its not too
> critical. So you might want to take up Paul's offer, perhaps with a
> nice drawing. Just don't ask him to make too many.
>

4651. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 19:54:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q3ig4brs1a92b@corp.supernews.com>
Source record: 66547

Richard Harrison wrote:
> . . .
> I agree the voltage induced in 1/2-meter of wire properly placed within
> a 1V/m uniform field is 0.5 volt, not 1 volt. The induced voltage in a
> wire within a uniform field sweeping the wire rises uniformly along the
> wire. It can be assumed to be the summation of tiny increments of
> voltage all along the wire. The voltages of the too-short dipole halves
> add just as two cells in some flashlights add. Their vectors are head to
> tail. But, current will be limited by radiation and loss resistances of
> the wires. It will also be limited by reactance in the wires.
> Open-circuit, 0.5 V + 0.5 V = 1V.

There are two incorrect statements here.

First, the voltage induced in the wire doesn't rise uniformly along the wire. It's sinusoidal, even for a very short wire. This is different from the transmitting case but interestingly doesn't interfere with reciprocity.

Secondly, the voltage at the center of an open-circuited 1 meter (electrically short) dipole in and parallel a 1 volt/meter field is 0.5 volt as I said earlier, not 1 volt.

I'll be glad to provide a number of references. Both these statements can also be verified by modeling.

The definition of field strength, incidentally, has nothing to do with the voltage of a dipole immersed in that field.

Roy Lewallen, W7EL

4652. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 19:55:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q3ii9tknov759@corp.supernews.com>
Source record: 66548

Richard Harrison wrote:
> . . .
> The voltage at the base of an open-circuit 1-metre wire iis one volt
> because it goes straight to the definition of field intensity in
> volts/m.

Do you have a reference which defines field strength in terms of voltage induced in a wire?

Roy Lewallen, W7EL

4653. Re: Classic Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 20:09:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q3jcoj7jfmma3@corp.supernews.com>
Source record: 66549

Bill Turner wrote:
>
> As has been explained here many times before, you can not "RF ground"
> your coax in the sense of connecting it to earth ground. The
> wavelength of the ground wire prevents a true ground from happening.
>
> You do need a safety ground (for the AC mains) and a "ground" to your
> radio chassis, but that's all. I put "ground" in quotes because it
> isn't really connected to earth. The word "common" would be more
> accurate, but most hams think of their chassis as "ground". So be it,
> as long as the true condition is understood.
>

"Ground" is one of the most misued terms among amateurs that I encounter. Somehow, labeling something "ground" imparts magic properties -- "grounded" things don't radiate, you can't get a shock or rf burn from "grounded" items, "grounded" items are free from the same rules that all other conductors must follow. None are true.

If your rig is mains-powered, you need a mains safety ground, as Bill said. This effectively connects the equipment to the Earth at mains frequency. If lightning is a threat, you also need a lightning ground, which effectively connects your antenna to the Earth when lighning strikes the antenna or nearby. Making an effective safety ground is simple; making a lightning ground is an art and science in itself.

If you have a balanced load for your rig (for example, a coax or twinlead feedline with equal and opposite currents on the two conductors), you don't need a "radio ground", that is, a low impedance connection between your radio and the Earth at radio frequencies. The only time you need one is if you've managed to make your rig a part of the antenna by allowing currents on the outside of a coax feedline, or unbalanced currents on a twinlead feedline. And getting this low impedance connection can be difficult -- or impossible, if multiple frequency bands are involved.

Roy Lewallen, W7EL

4654. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 20:14:56 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <Wc2dnR_I7Y8vUzzeRVn-og@web-ster.com>
Source record: 66550

Ed wrote:
(top posting fixed)
>
>
>>As a modification to this, since you can stand 1/2 inch thread, how
>>about using a 1/2 inch bolt and brazing or silver soldering some 1/2
>>inch ID tube over it? Not only will this be easier than trying to
>>center the 3/8 and potentially stronger than epoxy, but it would keep
>>that RF continuity.
>>
>>This is the sort of part that's expensive to turn out as a one-off
>>part, but very easy to manufacture on an NC lathe -- even a cam-driven
>>automatic screw machine would handle this with ease. Because of this
>>I suspect that there aren't any on the open market; rather a
>>manufacturer would just send drawings to their favorite screw machine
>>place to have them made 10000 at a time.
>>
>>It's also the sort of part that's fun to make in limited quantity --
>>it looks pretty, you get to practice your threading, yet its not too
>>critical. So you might want to take up Paul's offer, perhaps with a
>>nice drawing. Just don't ask him to make too many.
>>
>
>
> Good information, (below), thanks. On the issue of availability,
> though, I have to wonder why they would NOT be available for sale?
> Obviously, certain manufacturers of the multitude of ham-stick type
> antennas use them. There must be a large scale source, somewhere!
>
> Ed
>
Actually my point was that this is exactly the sort of market where
there _won't_ be a large-scale source, at least not an open one. It's a
market dominated by a few vertically integrated manufacturers, who have
no vested interest in commonality of parts and _do_ get advantages from
having design control over the parts they get. If nothing else it make
it much more expensive for the guy down the road to start up his own
operation.

Consider that nuts and bolts were not truly standardized until around
100 years ago. Before (AFAIK) then manufacturers would specify by size,
but there were no commonly used standards until the SAE got together and
made it happen. As a result nuts and bolts became commodity items and
the price went down.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4655. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 20:30:27 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1134678627.445979.214800@f14g2000cwb.googlegroups.com>
Source record: 66551

Hi, Ed.
No, I am not a "machinist". Just hobby that turned into a very useful way to make/build/repair things.

I was a retired computer programmer/systems analyst/data communications consultant. After my partners and I sold the business in Kirkland, WA, my wife and I moved to dry/sunny Central Oregon. Was 4° this morning. 8-10" snow on ground for 2+ weeks. Maybe Puget Sound wasn't so bad after all!

After 1 1/2 years, my wife thought I should find a job. Noting for a guy 60 years old. Saw an ad for a partner in an elctronic assembly business here in Redmond. Bought 45% of the business in 2000. We had one customer. Have built it to $750,000 in sales this year and 7 employees. Partner died a year ago, and the widow gave me the rest of the company in exchange for paying off a note. Hope to do a million next year!

Without the metalworking hobby experience we would have spent many thousands of dollars on tools, tooling and equipment.

I have been working on getting a mobile HF set-up in my pickup truck. Working on mobile mounts for antennas since last summer. Still no decision on how to mount.

So, Ed, can we make contact on 75 meters or 160, or where? We can discuss this some more on the air!

Paul, KD7HB

4656. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 21:03:41 UTC
From: richardharrison@webtv.net
Message-ID: <27842-43A1DA2D-217@storefull-3251.bay.webtv.net>
Source record: 66552

Roy Lewallen wrote"
"Do you have a reference which defines field strength in terms of
voltage induced in a wire?"

Here is more of one I already posted. It is from the 19th edition of the
ARRL Antenna Book on page 23-3:
"The strength of a wave is measured as the voltage between two points
lying on an electric line of force in the plane of the wave front. The
standard of measure for field intensity is the voltage developed in a
wire that is 1 meter long, expressed as volts per meter. (If the wire
were 2 meters long, the voltage developed would be divided by two to
determine the field strength in volts per meter.)"

Best regards, Richard Harrison, KB5WZI

4657. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 21:28:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q3nvbnol50356@corp.supernews.com>
Source record: 66553

Richard Harrison wrote:
> Roy Lewallen wrote"
> "Do you have a reference which defines field strength in terms of
> voltage induced in a wire?"
>
> Here is more of one I already posted. It is from the 19th edition of the
> ARRL Antenna Book on page 23-3:
> "The strength of a wave is measured as the voltage between two points
> lying on an electric line of force in the plane of the wave front. The
> standard of measure for field intensity is the voltage developed in a
> wire that is 1 meter long, expressed as volts per meter. (If the wire
> were 2 meters long, the voltage developed would be divided by two to
> determine the field strength in volts per meter.)"
>
> Best regards, Richard Harrison, KB5WZI
>

Thanks. I'll contact Dean Straw to get that corrected.

Roy Lewallen, W7EL

4658. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 23:18:25 UTC
From: richardharrison@webtv.net
Message-ID: <3647-43A1F9C1-257@storefull-3258.bay.webtv.net>
Source record: 66554

Roy Lewallen , W7EL wrote:
"Do you have a reference which defines field strength in terms of voltage induced in a wire?"

Here is a reference from a professional source. B. Whitfield Griffith, Jr. was Director of Advanced Development at General Dynamics Corporation at Garland, Texas when his book, "Radio-Electronicc Transmission Fundamentals" was published by Mc Graw-Hill in 1972. On page 322, Griffith writes:
"The strength of an electromagnetic wave is generally measured in terms of the intensity of the electric field; this is expressed in volts per meter, or millivolts or microvolts per meter, as the conditions may indicate. This value may be understood as being the numbeer of volts which would be induced in a piece of wire one meter long placed in the field parallel to the electric lines of force; the induction of voltage would result from the movement of the magnetic flux across the wire.

Griffith agrees with Terman.

Best regards, Richard Harrison, KB5WZI

4659. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-15 23:45:12 UTC
From: DrDeath <drdeath555usb@nospam.yahoo.com>
Message-ID: <11q4003qm1ndb7f@corp.supernews.com>
Source record: 66555
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Amos Keag" <A.K01@comcast.net> wrote in message
news:cY2dnQllc9uTMD3eRVn-gA@comcast.com...
> The Magnum wrote:
>> "Amos Keag" <A.K01@comcast.net> wrote in message
>> news:ofadnew7Prglsz3enZ2dnUVZ_tGdnZ2d@comcast.com...
>>
>>>Peter wrote:
>>>
>>>>
>>>> OH... so you assume I am an atheist.? How wrong can you be! However
>>>>I like to think for myself rather than be brainwashed by some guy in
>>>>fancy robes.... especially the brand that do Mass :-)
>>>
>>>When I wear my robes at Mass I'll still pray for you. There's nothing
>>>you can do about it.
>>
>>
>> Pray for me to win the lottery please :O)
>>
>> Regards,
>> Graham
>
> You have to watch the movie "Bruce Almighty". I did that once! 14,000
> winners of $17 each or something like that :-0
>

I watched that movie 4 times, I didn't win any money.

4660. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 00:53:17 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns972DAC0A64631spectrumhogstarbandn@198.186.192.196>
Source record: 66556

```
>
> Actually my point was that this is exactly the sort of market where
> there _won't_ be a large-scale source, at least not an open one. It's
a
> market dominated by a few vertically integrated manufacturers, who have
> no vested interest in commonality of parts and _do_ get advantages from
> having design control over the parts they get. If nothing else it make
> it much more expensive for the guy down the road to start up his own
> operation.
>
> Consider that nuts and bolts were not truly standardized until around
> 100 years ago. Before (AFAIK) then manufacturers would specify by
size,
> but there were no commonly used standards until the SAE got together
and
> made it happen. As a result nuts and bolts became commodity items and
> the price went down.
>

Understand what you are saying, but this item I am describing is
pretty much standardized, near as I can tell. Soooo many mobile antenna
manufacturers, including CB, use it on their 1/2" fiberglass rod based
antennas, that I am pretty sure there must be a sizable source,
somewhere.

Ed
```

4661. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 05:11:03 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43a23b60@fidonet.org>
Source record: 66557

"Richard Harrison" bravely wrote to "All" (15 Dec 05 17:18:25)
--- on the heady topic of "Re: Antenna reception theory"

RH> From: richardharrison@webtv.net (Richard Harrison)
RH> Xref: core-easynews rec.radio.amateur.antenna:221371

RH> Roy Lewallen , W7EL wrote:
RH> "Do you have a reference which defines field strength in terms of
RH> voltage induced in a wire?"

RH> Here is a reference from a professional source. B. Whitfield Griffith,
RH> Jr. was Director of Advanced Development at General Dynamics
RH> Corporation at Garland, Texas when his book, "Radio-Electronicc
RH> Transmission Fundamentals" was published by Mc Graw-Hill in 1972. On
RH> page 322, Griffith writes:
RH> "The strength of an electromagnetic wave ; this is expressed in
RH> volts per meter, or millivolts or microvolts per meter, as the
RH> conditions may indicate.

So far so good, however things go awry from here on...

RH> This value may be understood as being the
RH> numbeer of volts which would be induced in a piece of wire one meter
RH> long placed in the field parallel to the electric lines of force; the
RH> induction of voltage would result from the movement of the magnetic
RH> flux across the wire.

RH> Griffith agrees with Terman.

He clearly contradicts himself in my opinion. He says it "is generally
measured in terms of the intensity of the electric field" then goes
on to talk about induction by magnetic flux. Further, he is not saying
that "it is" but that it "*may* be understood as". He is making an
example of one way to proceed. He is not saying they are the same
thing, only similar. There is a difference not a matter of syntax.

This reminds me of a contradiction I find in Einstein's equivalence
principle. He states accelerating at 1G is the same as being pulled by
the Earth's gravity at 1G. In my opinion, they are similar but they
are not quite the same thing simply because in the former there is
motion and for the latter there is not.

A*s*i*m*o*v

4662. Aluminum Tower Wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 05:58:15 UTC
From: Bob <none@thistime>
Message-ID: <__idnadxP-zoyj_enZ2dnUVZ_sWdnZ2d@giganews.com>
Source record: 66558

Need approximately 50 ft within pick-up range of North Texas.
contact: eh54 at sbcglobal dot net

4663. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 13:41:53 UTC
From: richardharrison@webtv.net
Message-ID: <22405-43A2C421-15@storefull-3256.bay.webtv.net>
Source record: 66559

Asimov wrote:
"He clearly contradicts himself in my opinion."

Griffith echoes Terman.

Terman writes on page 2 of his 1955 edition:
"The strength of a radio wave is measured in terms of the voltage stress produced by the electric field of the wave and it is usually expressed in microvolts per meter."

Terman does not literally mean that it is the electric field which is measured. In his handbook Terman says that a magnetic loop antenna is usually the field strenngth meter`s antenna. Terman meant that field strength is quoted in volts per meter. It is irrelevant which field is actually measured as the two fields are locked in magnitude by the impedance of space, 377 ohms. If you know one, you know the other.

Terman also wrote on page 2:
"The strength of the wave measured in terms of microvolts per meter of stress in space is also exactly the same voltage that the magnetic flux of the wave induces in a conductor 1 m long when sweeping across this conductor with the velocity of light."

The electric and magnetic fields serve to recreate each other in their flight from their source. Either could be measured to get the strength of the wave. Neither field directly produces volts in a wire.

As Terman says, it is the wave sweeping the wire at the velocity of light, the d(phi)/dt that generates the volts.

Best regards, Richard Harrison, KB5WZI

4664. Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 16:20:53 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <rZCdnROkRb3-dD_enZ2dnUVZ_s6dnZ2d@comcast.com>
Source record: 66560

Hello:

Have been reading up on lightning a bit, and it certainly
is a confusing subject.

Let's say I have an Inverted-L or a Sloper in the yard (receiving only).

If a lightning storm is in the vicinity, obviously the best protection
possible is to just disconnect the radio from the antenna. No differences
of opinion here, I would imagine.

But, as a more or less theoretical question, to minimize the possibility of
lightning hitting the antenna at all, or inducing large voltages in it, is
it better to just leave the now "floating" antenna alone, or is it better to
ground one end of it ?

Why ?

Thanks,
B.

4665. Re: Looking for fiberglass antenna part

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 16:29:09 UTC
From: mcalhoun@ksu.edu
Message-ID: <dnuq0l$8gp@unix1.cc.ksu.edu>
Source record: 66563

>....[snip]....
>I have been working on getting a mobile HF set-up in my pickup truck.
>Working on mobile mounts for antennas since last summer. Still no
>decision on how to mount.

I once mounted a 7-foot-long plain ol' 2x4 on the outside of my pick-up truck's bed on the driver's side with 2-3 angle brackets. This gave me a nice platform for mounting all sorts of whip antennas using no more than an electric drill, some screws & bolts, and a big screwdriver. At one time I had three hamsticks (for three different bands) mounted at the same time, with coax to a selector switch inside next to the radio. Probably wouldn't have worked too well if/when the 2x4 got wet, but for experimentation it was just fine.

Later I mounted a PAIR of hamsticks (for the same band) end-to-end (to make a horizontal dipole pointing fore and aft) on a wooden post which stuck up about two feet above the cab. Worked like a charm! (Think NVIS). Until I drove into the garage and the forward-pointing whip speared the loop in the garage-door pull-down loop!
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4666. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 16:30:21 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <dnuq09$61c$1@newsg3.svr.pol.co.uk>
Source record: 66561
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

> >> Pray for me to win the lottery please :O)
> >>
> >> Regards,
> >> Graham
> >
> > You have to watch the movie "Bruce Almighty". I did that once! 14,000
> > winners of $17 each or something like that :-0
> >
>
> I watched that movie 4 times, I didn't win any money.

That's because Amos (eyy up Mr wilks ;o) wasn't praying for you...

Regards,
Graham
--
_·_· _··· ·_· ·_ _·· ·· _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4667. Re: Cobra multiband dipole (linear loaded) help pse

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 16:32:34 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1134750754.496026.302910@z14g2000cwz.googlegroups.com>
Source record: 66562

Well, its all built, awaiting installation in my friends attic maybe this weekend. I built it out of 3 conductor round cable, number 14 stranded, 36.5 feet. That seems to be what DX Engineering is doing, so its good enough for me. Its easy to build this way. Now lets see how it plays.

4668. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 17:06:17 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <7ss5q1te23aum095cdcidaql6tjnbpoe4v@4ax.com>
Source record: 66564

On Fri, 16 Dec 2005 11:20:53 -0500, "Robert11" <rgsros@notme.com>
wrote:

>But, as a more or less theoretical question, to minimize the possibility of
>lightning hitting the antenna at all, or inducing large voltages in it, is
>it better to just leave the now "floating" antenna alone, or is it better to
>ground one end of it ?

~~~~~~

I doubt it matters. A lightning bolt, having traveled thousands of
feet to the vicinity of your antenna, will not be deterred by a few
more inches.

73, Bill W6WRT
~~~~~~

4669. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 17:57:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnuv5jpqe1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66565

> Thanks Reg. My NEC2 agreed with your previous program, so do not
know where
> I went wrong. Will try and figure it out.
>
> Regards,
>
> Frank
==========

Frank,

The situation changes by the hour so I suggest you don't spend a great deal of time trying to sort things out. Either the program is in error or you have entered incorrect data. Or (see below) both you and I have the correct answer in the first place.

From the situation at present we have :-

It seems the numerous Bibles written by learned professors don't agree on the subject.

Computer programs, whose results are falsely taken as being gospel truths, don't agree on the subject.

The 'experts' who contribute to this newsgroup can't agree on the subject. But, from the frequency of arguments which result. this is perfectly normal.

I remain as an innocent, neutral bystander, in danger of being unjustly accused of being a troll, whereas -

All I need is an answer to my simple but essentially fundamental and practical question -

"What is the voltage measured between the bottom end of a 1 metre high vertical antenna and ground, when the field strength is 1 volt per metre?"

It goes without saying, a perfect ground is assumed, the antenna height is less than 1/4-wavelength and the radio wave is vertically polarised.

Is the measured voltage 1 volt or is it 0.5 volts?

There's a simple factor of 2 involved somewhere. Should I take a statistical average of the replies if there are any?

What happens on an isolated dipole is irrevalant. It is just a
time-wasting diversion.

I don't have access to the 'learned Bibles' or to computer programs
(except my own). So there is no point in referring to them. But I
don't consider this to be any handicap. Short, logical, convincing
explanations in plain English and perhaps a little arithmetic would be
welcome of course.

Reg, G4FGQ.

4670. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 18:27:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnv0uo$t17$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66566

As I said, I do not have access to the many ancient, learned volumes about radio transmission and antennas. Or to the many computer programs.

But I do recall mention of "Effective Height" of vertical antennas which has NOT been mentioned in the numerous prolonged threads on this newsgroup about the relationship between receiver input power and field strength.

What "Effective Height" means may be vague. But some sort of a definition may be a clue to solving my problem. Don't mention Marconi, Terman, Kraus, Balani, et al.,
---
Reg, G4FGQ

4671. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 18:39:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fn16q19sf2v6h0oea2j3hcntjbp0f40r7b@4ax.com>
Source record: 66567

On Fri, 16 Dec 2005 17:57:08 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I remain as an innocent, neutral bystander, in danger of being
>unjustly accused of being a troll, whereas -
...
>There's a simple factor of 2 involved somewhere.

Hmm, I asked a simple question involving your arbitrary use of a
factor of two (2) and you dismissed it as my "anger," or somesuch
clumsy diversion.

Most of your correspondence has been tainted with trolling, what is
different in this case?

Sorry, that is now two (2) simple questions which, no doubt, you will
find undecipherable. Don't worry, we are all capable of observing
that given Richard H. directly responded to your question with a
straight answer - your lack of returning to him puts this troll
squarely at your doorstep.

As for your observation (if it quacks like a troll...):
>Computer programs, whose results are falsely taken as being gospel
>truths, don't agree on the subject.
it seems you are now the author of two (2) such programs that covers
both sides of the argument. I suppose the chance of being 50% right
outweighs the risk of being 100% wrong. ;-)

That, of course, presumes an insecure perspective (which is validated
by having two answers for any question - rather returns us to your
typical trolls, doesn't it?).

Lord Kelvinator is winding up another pitch to wing a chunk of
railroad chalk off your noggin'. Watching you duck throughout these
threads has become an amusing prospect.

Thanx for the entertainment,
Richard Clark, KB7QHC

4672. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 18:52:45 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dnv2i3$ln0$1@news.service.uci.edu>
Source record: 66568

Asimov wrote:

> This reminds me of a contradiction I find in Einstein's equivalence
> principle. He states accelerating at 1G is the same as being pulled by
> the Earth's gravity at 1G. In my opinion, they are similar but they
> are not quite the same thing simply because in the former there is
> motion and for the latter there is not.

A contradiction which might only appear if you were to confuse little g and big G. Eistein was referring to the former, which is the acceleration a falling body experiences as a result of the force of gravity on Earth - a change of velocity of 9.8 meters per second in one second. Clearly motion is involved. Big G is the universal gravitational constant, which is in units of Newton meters squared per kilogram squared. Clearly, this relates to a force in Newtons which varies as the square of mass and the inverse square of distance, according to Newton's law of gravitation. Motion is only involved if the force is not met with an equal and opposing force - as is obviously the case when standing on the ground.

ac6xg

4673. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 19:47:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dnv5kv$8de$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66569

Punchinello has no time to waste on drivel and says "phooey".

4674. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 20:32:43 UTC
From: Frank <frank599@nospamtelus.net>
Message-ID: <LvFof.355$h86.226@edtnps89>
Source record: 66570

> As I said, I do not have access to the many ancient, learned volumes
> about radio transmission and antennas. Or to the many computer
> programs.
>
> But I do recall mention of "Effective Height" of vertical antennas
> which has NOT been mentioned in the numerous prolonged threads on this
> newsgroup about the relationship between receiver input power and
> field strength.
>
> What "Effective Height" means may be vague. But some sort of a
> definition may be a clue to solving my problem. Don't mention
> Marconi, Terman, Kraus, Balani, et al.,
> ----
> Reg, G4FGQ

Repeating what was previously posted. The following model treats a 1 meter (perfect conductor) monopole, of 0.814 mm diameter, connected to a perfectly conducting ground. I have applied a vertically polarized incident E-field of 1 V/m (peak). The base of the antenna is loaded with the antennas complex conjugate of 1.747 + j823.796. NEC2 computes the current through the load ast 0.2863 Amps (peak), which is 0.5001 V peak. This appears to agree with Reg's program.

Possibly someone can point out if there are any errors in the following code:

```
CM 1 Meter Vertical
CE
GW 1 50 0 0 1 0 0 0 0.000814
GS 0 0 1
GE 1
GN 1
EX 1 1 1 0 90 0 0 1 1 1
LD 4 1 50 50 1.747 823.796
FR 0 3 0 0 19.9 0.1
RP 0 181 1 1000 -90 90 1.00000 1.00000
EN
```

Regards,

Frank

4675. Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 20:36:27 UTC
From: Toni <devegades@gmail.com>
Message-ID: <1134765387.519872.236400@g47g2000cwa.googlegroups.com>
Source record: 66571

Hi,

I've seen here before suggestions about using a tuned loop to increase the gain of radio controlled clocks. Do you think this could also be used to increase the gain of a gps receiver?

I guess that loop should be 1wl circumference, or about 2 1/2 inch diameter, easy enought to cary in a pocket and play with.

I know one can not have more than 0 dB with full omni, I just guess the minimalistic antenna in pocketable gps is way below 0 dB and could maybe be improved a little.

Could this be modeled in EZNEC, one segment with some series resitance for high loss antenna and the other 19 to simulate the loop?

4676. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 21:35:18 UTC
From: fmmck@aol.com
Message-ID: <fmmck-1612051635180001@aca44713.ipt.aol.com>
Source record: 66572

In article <7ss5q1te23aum095cdcidaql6tjnbpoe4v@4ax.com>, Bill Turner
<noway@nohow.com> wrote:

> On Fri, 16 Dec 2005 11:20:53 -0500, "Robert11" <rgsros@notme.com>
> wrote:
>
> >But, as a more or less theoretical question, to minimize the possibility of
> >lightning hitting the antenna at all, or inducing large voltages in it, is
> >it better to just leave the now "floating" antenna alone, or is it better to
> >ground one end of it ?
>
> ~~~~~~
>
> I doubt it matters. A lightning bolt, having traveled thousands of
> feet to the vicinity of your antenna, will not be deterred by a few
> more inches.

Bill-

That's what I was going to say!

I recall a field day activity where the club was using the press box of a
high school football field, with antennas strung between light poles. As
a storm approached, there were sparks several inches long jumping between
disconnected antenna connectors and nearby grounded equipment. These
sparks were induced by lightning strikes that were some distance away.

Grounding would have eliminated the sparks by providing a metalic path for
the discharge. I doubt it would have had any influence on whether an
antenna would be directly hit, or would have provided any substantial
protection in the event of a direct strike.

Traditional wisdom is that having tall trees nearby, as well as tall
objects such as light poles, will shield you from lightning. But there
are no guarantees. And lightning doesn't always strike the top of tower!

73, Fred, K4DII

4677. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 21:56:12 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dnvda6qta1@news.service.uci.edu>
Source record: 66573

Roy Lewallen wrote:

> Richard Harrison wrote:
>
>> . . .
>> I agree the voltage induced in 1/2-meter of wire properly placed within
>> a 1V/m uniform field is 0.5 volt, not 1 volt. The induced voltage in a
>> wire within a uniform field sweeping the wire rises uniformly along the
>> wire. It can be assumed to be the summation of tiny increments of
>> voltage all along the wire. The voltages of the too-short dipole halves
>> add just as two cells in some flashlights add. Their vectors are head to
>> tail. But, current will be limited by radiation and loss resistances of
>> the wires. It will also be limited by reactance in the wires.
>> Open-circuit, 0.5 V + 0.5 V = 1V.
>
>
> There are two incorrect statements here.
>
> First, the voltage induced in the wire doesn't rise uniformly along the
> wire. It's sinusoidal, even for a very short wire.

Interesting. Assuming a plane wave sweeping broadside, with the field being the same at every point along the wire, one might be inclined to argue that the voltage induced on a wire should be the same at every point along a finite length. The "rise" in voltage as the field sweeps past would be with respect to time, rather than with respect to position. Sort of explains why a radio receiver works just fine with only one wire attached when you think about it. ;-)

73, ac6xg

4678. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 22:46:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7af6q1t0iktaem520dvkr31r9nuajr23a1@4ax.com>
Source record: 66574

On Fri, 16 Dec 2005 13:56:12 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

> one might be inclined to argue that the voltage induced on a wire should be the same at every
>point along a finite length

One might, if it were an exceptionally short piece of wire. Otherwise
it must exhibit some greater reactance than nearly 0 and support a
difference of potential in proportion to the current through it. There
is also the radiation (non-0) resistance to consider (same observation
of a potential difference there too).

Presumably, this all hinges on what is meant, in practical terms, for
"finite length."

>The "rise" in voltage as the field sweeps
>past would be with respect to time,
With respect to what time? The time for the wave to sweep past? What
frequency? The full wave, or its peak? or its average (0)?

>rather than with respect to position.

Position of what?

If we could generate a step-wave, and that wave impinges upon the wire
broadside, and we were to arbitrarily assign the frequency of 3 MHz
(so that the wire length of 1 Meter is one percent long - a short
antenna by any definition); then the first degree would immediately
demand a response in 1nS. 1nS is a very appreciable dT for 1 Meter's
worth of inductance.

Still and all, 1nS is hardly the slice of the wave an antenna wire
sees, unless it is 1nS thick - or 33cm. This comes close to a tower's
size, but receivers work with far thinner stuff and the dV/dT
certainly pushes the voltage drop across 1 meter of that wire up
higher.

73's
Richard Clark, KB7QHC

4679. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-16 22:55:09 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <h4g6q11d07grvg4o8cc0mim6r5qsmsqteh@4ax.com>
Source record: 66575

On Fri, 16 Dec 2005 11:20:53 -0500, "Robert11" <rgsros@notme.com>
wrote:

>Hello:
>
>Have been reading up on lightning a bit, and it certainly
>is a confusing subject.
>
>Let's say I have an Inverted-L or a Sloper in the yard (receiving only).
>
>If a lightning storm is in the vicinity, obviously the best protection
>possible is to just disconnect the radio from the antenna. No differences
>of opinion here, I would imagine.
>
>But, as a more or less theoretical question, to minimize the possibility of
>lightning hitting the antenna at all, or inducing large voltages in it, is
>it better to just leave the now "floating" antenna alone, or is it better to
>ground one end of it ?
>
>Why ?

You have to think carefully about what you are trying to protect.

It seems to me that in the event of a lightning stroke in the near vicinity of your antenna, large voltages will be induced in the antenna wrt "ground", whether or not your antenna or its support structure features as a streamer, or takes the current from a leader.

That voltage may be sufficient for insulation breakdown, and charge will flow to ground via some path, not necessarily of your choosing. Substantial physical damage may occur where insulation breaks down, the path of the side-flash current may result in further damage to persons or equipment.

If you make a substantial connection from the feedline to some thing, you have some degree of control over the path that the discharge current flows. Properly chosen and implemented, that might be better than doing nothing, but if poorly designed or implemented, it could be worse than doing nothing. Side-flash can still occur where you have provided a path to ground.

Very often, the target of effective lighting protection of radio installations is minimisation of voltage drops or potential differences internal to an installation as a result of lightning discharge current rather than trying to minimise the voltage to "ground" resulting from the current.

Owen
--

4680. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 01:23:38 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <uMJof.42727$D13.3507@newssvr11.news.prodigy.com>
Source record: 66477

Jim Kelley wrote:
> Sort of explains why a radio receiver works just fine with
> only one wire attached when you think about it. ;-)

It doesn't work fine when you don't think about it? :-)
--
73, Cecil http://www.qsl.net/w5dxp

4681. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 01:38:47 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <dnvqbn$3rc$1@news.service.uci.edu>
Source record: 66478

Richard Clark wrote:

> On Fri, 16 Dec 2005 13:56:12 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>one might be inclined to argue that the voltage induced on a wire should be the same at
every
>>point along a finite length
>
>
> One might, if it were an exceptionally short piece of wire. Otherwise
> it must exhibit some greater reactance than nearly 0 and support a
> difference of potential in proportion to the current through it. There
> is also the radiation (non-0) resistance to consider (same observation
> of a potential difference there too).

You seem to be arguing that the induced potential in the wire is due to IR or IZ. I don't think that's true. According to JC Maxwell, the magnitude of the induced voltage and current should depend on the EM field and on the in situ permitivity and permeability of the wire. As long as those things are constant along the length of that wire, there is no reason to expect anything but uniform voltage and current along the length of the wire. As Roy said, an antenna does not behave the same on receive as it does on transmit apparently. A receive antenna does not appear to behave like a transmission line.

> Presumably, this all hinges on what is meant, in practical terms, for
> "finite length."

Finite here just means small compared to any curvature of the wave front. Were the wire long enough compared to the distance to the source, one couldn't expect the fields to be uniform along the length of the wire.

>>The "rise" in voltage as the field sweeps
>>past would be with respect to time,
>
> With respect to what time? The time for the wave to sweep past? What
> frequency? The full wave, or its peak? or its average (0)?

It just means voltage as a function of time - like the waveform induced by the fields of a passing electromagnetic wave for example.

>>rather than with respect to position.
>

>
> Position of what?

It means position along the wire - as in the topic of the conversation
you've joined.

I apologize for any lack of clarity on my part.

73, ac6xg

4682. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 03:45:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q72e0a35vpab1@corp.supernews.com>
Source record: 66479

This thread has presented a clear illustration of the danger of quoting from a book, even an authoritative one, without fully understanding the context.

Before I continue, let me stipulate that the conductors being talked about here are all electrically short (much shorter than a wavelength), and are placed parallel to the E field. The following statements won't be generally true if both those conditions aren't met.

I've been saying that the voltage at the center of an open circuited 1 m dipole immersed in a 1 V/m field is 0.5 volts. Richard has quoted some references which say that the voltage induced in a 1 m wire immersed in a 1 V/m field is 1 volt, and implying that it follows that the voltage at the center of an open circuited dipole of that length is 1 volt. It isn't, and I'll try to explain why.

The voltage drop, or emf, across a very short conductor in a field of E volts/meter is E*L volts, where L is the length of the very short conductor in meters. This is undoubtedly the reason for the statements like the ones Richard has quoted. If we look at the emf generated across each tiny part of a one meter long dipole by a 1 V/m field and add them up, we'll find that they total 1 volt. But what's the voltage across the dipole, from end to end? The answer to that is it's just about anything we want it to be. Any time we try to measure the voltage between two points in space when there's a time-varying H field present, the answer we get depends on the path we take between the two points. Crudely but not entirely accurately put, it depends on how we arrange the voltmeter leads. We can, however, measure the voltage at the dipole center, across a gap that's arbitrarily small.

So what's that voltage? I can't think of any line of reasoning which would deduce that it's equal to the total emf along the wire (1 volt for our example). You can casually open various texts and find the answer to that -- it's either 0.5 volts, as I've said, or 1 volt, as Richard has said. To understand the reason for the apparent contradiction requires digging more deeply into the texts.

Most of the texts I have analyze field-conductor interactions with a special kind of dipole which has a uniform current distribution -- that is, the current is the same amplitude all along the dipole's length. There are a couple of ways you can physically make a dipole like this. One is to begin with a conventional (but short) dipole and add large end hats, like a two-ended top loaded vertical. A number of authors (e.g., Kraus) show a diagram of such a dipole. Another way to get a distribution like this is to stipulate that the dipole really be only a tiny segment of a longer wire. The short conductor with uniform current

is often called a "Hertzian dipole", sometimes an "elemental dipole", sometimes just a short or infinitesimal dipole, or by Terman, a "doublet". As Balanis (_Antenna Theory - Analysis and Design_, p. 109) says, "Although a constant current distribution is not realizable, it is a mathematical quantity that is used to represent actual current distributions of antennas that have been incremented into many small lengths." The voltage at the center of a one meter antenna of this type in a 1 V/m field is 1 volt.

But this fictitious dipole, used for conceptual and computational convenience, isn't a real dipole. A real dipole -- that is, just a single, straight wire with a source or load at its center and no end hats -- doesn't have a uniform current distribution. Instead, the current is greatest in the center, dropping to zero at the ends. When transmitting, the current on a short dipole drops nearly linearly from the center to the ends. When receiving, the current distribution is nearly sinusoidal. The net result of this non-uniform current is that the voltage at the center is less than it is for a uniform-current dipole -- exactly half as much, actually. Conceptually, it's because the current near the ends contributes less to the voltage at the center. I'm going to wave my hands over the significance of the different receiving and transmitting current distributions, except to say that reciprocity is still satisfied in all ways, including the transmitting and receiving impedances being the same. To add confusion, the gain, directivity, and effective apertures of both types of dipole are the same -- 1.5, 1.5, and 3 * lambda^2 / (8 * pi) respectively. This means that you can extract the same amount of power from an impinging wave with either type of antenna, provided that you terminate each in the complex conjugate of its transmitting feedpoint impedance. The radiation resistance of the uniform-current dipole is 4 times that of the conventional dipole. (Remember, these are all electrically short.)

There's a common term for the relationship between the field strength and the length of a conductor, called the "effective height" or "effective length". The voltage at the center of a dipole in a field of E volts/m is simply E * the effective length. The concept is valid for any length conductor, not just short ones. The effective length of a uniform-current dipole is equal to the wire length. The effective length of a short conventional dipole is 0.5 times the wire length. The effective length for receiving is the same as the effective length for transmitting -- in transmitting, it relates the strength of the field produced to the *voltage* -- not power -- applied across the feedpoint. If you apply 0.5 volts to a standard dipole and 1.0 volts to a uniform-current dipole, the power applied to each will be the same because of the 1:4 ratio of radiation resistance, and the generated fields will be the same. This is consistent with the antenna gains being the same.

As I mentioned, most text authors use a uniform-current dipole for analysis. One which directly derives the voltage of a standard short dipole is King, Mimno, and Wing, _Transmission Lines, Antennas, and Wave

Guides_. Many others, including Kraus, _Antennas_ (2nd Ed. p. 41), derive the effective length for a short conventional dipole as 0.5 * the physical length, from which the open circuit voltage due to an impinging field can easily be determined.

As a last note on a point of contention, electric field strength is usually defined not by the voltage induced in a conductor but from the force between charges using the Lorenz force law. The unit of electric field strength is found to be newtons/coulomb, which is the same as volts/meter. Among the texts using this definition are Kraus (_Electromagnetics_), Terman (_Radio Engineering_), Ida, Majid, and Ramo et al.

Roy Lewallen, W7EL

4683. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 03:46:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q72gqq39466d9@corp.supernews.com>
Source record: 66480

Hopefully my recent posting on the "Antenna reception theory" thread
will clarify things a bit.

Roy Lewallen, W7EL

Reg Edwards wrote:
>
> Frank,
>
> The situation changes by the hour so I suggest you don't spend a great
> deal of time trying to sort things out. Either the program is in error
> or you have entered incorrect data. Or (see below) both you and I have
> the correct answer in the first place.
>
> From the situation at present we have :-
>
> It seems the numerous Bibles written by learned professors don't agree
> on the subject.
>
> Computer programs, whose results are falsely taken as being gospel
> truths, don't agree on the subject.
>
> The 'experts' who contribute to this newsgroup can't agree on the
> subject. But, from the frequency of arguments which result. this is
> perfectly normal.
>
> I remain as an innocent, neutral bystander, in danger of being
> unjustly accused of being a troll, whereas -
>
> All I need is an answer to my simple but essentially fundamental and
> practical question -
>
> "What is the voltage measured between the bottom end of a 1 metre high
> vertical antenna and ground, when the field strength is 1 volt per
> metre?"
>
> It goes without saying, a perfect ground is assumed, the antenna
> height is less than 1/4-wavelength and the radio wave is vertically
> polarised.
>
> Is the measured voltage 1 volt or is it 0.5 volts?
>
> There's a simple factor of 2 involved somewhere. Should I take a
> statistical average of the replies if there are any?
>

> What happens on an isolated dipole is irrevalant. It is just a
> time-wasting diversion.
>
> I don't have access to the 'learned Bibles' or to computer programs
> (except my own). So there is no point in referring to them. But I
> don't consider this to be any handicap. Short, logical, convincing
> explanations in plain English and perhaps a little arithmetic would be
> welcome of course.
> ----
> Reg, G4FGQ.
>
>

4684. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 03:49:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q72mv8aldhj29@corp.supernews.com>
Source record: 66481

Jim Kelley wrote:
>
> Interesting. Assuming a plane wave sweeping broadside, with the field
> being the same at every point along the wire, one might be inclined to
> argue that the voltage induced on a wire should be the same at every
> point along a finite length. The "rise" in voltage as the field sweeps
> past would be with respect to time, rather than with respect to
> position. Sort of explains why a radio receiver works just fine with
> only one wire attached when you think about it. ;-)
>

The Earth's (static) electric field is about 120 V/m at ground level on
a stormless day. Better not walk too fast. Jogging might be fatal!

Roy Lewallen, W7EL

4685. Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 05:05:43 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <H0Nof.37181$6e.33307@tornado.tampabay.rr.com>
Source record: 66482

Anyone have experience with GAP Antennas? On paper they look almost too good to be true, but I know that word of mouth can be more informative. All comments welcomed.

west
AF4GC

4686. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 05:56:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q7a46jtvo9jf9@corp.supernews.com>
Source record: 66483

Frank wrote:
>
> Repeating what was previously posted. The following model treats a 1 meter
> (perfect conductor) monopole, of 0.814 mm diameter, connected to a perfectly
> conducting ground. I have applied a vertically polarized incident E-field
> of 1 V/m (peak). The base of the antenna is loaded with the antennas
> complex conjugate of 1.747 + j823.796. NEC2 computes the current through
> the load ast 0.2863 Amps (peak), which is 0.5001 V peak. This appears to
> agree with Reg's program.
> . . .

> Possibly someone can point out if there are any errors in the following
> code:
>
> CM 1 Meter Vertical
> CE
> GW 1 50 0 0 1 0 0 0 0.000814
> GS 0 0 1
> GE 1
> GN 1
> EX 1 1 1 0 90 0 0 1 1 1
> LD 4 1 50 50 1.747 823.796
> FR 0 3 0 0 19.9 0.1
> RP 0 181 1 1000 -90 90 1.00000 1.00000
> EN

You've specified a plane wave of 1 V/m peak arriving in a horizontal direction over a ground plane. This results in a field strength of 2 V/m peak at the antenna. For more information about this, look at my postings over the last couple of weeks on the thread "Antenna reception theory".

Roy Lewallen, W7EL

4687. Rohn-Loc Climbing Safety System

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 06:01:40 UTC
From: ka9s@arrl.net
Message-ID: <1134795895.961970.281340@g14g2000cwa.googlegroups.com>
Source record: 66484

A friend is giving me a Rohn-Loc tower climbing safety cable system. It's a 3/8-inch cable that is suspended from the top of the tower to the bottom. It's kept about 6 inches from the tower face and held under tension. The climber has a "Safety clamp" attached from his climbing belt to the cable. The generic name for this is a cable grip.

I need the "Safety clamp" (cable grip) to complete the system. Does anyone know where to get one of these? I just need the grip, not a complete belt. If you have one of these set up on your tower I'd like to know if you like it.

- Jeff - KA9S

4688. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 06:09:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q7as26ibspr8e@corp.supernews.com>
Source record: 66485

Toni wrote:
> Hi,
>
> I've seen here before suggestions about using a tuned loop to increase
> the gain of radio controlled clocks. Do you think this could also be
> used to increase the gain of a gps receiver?

No. If you were to increase the gain of your GPS antenna, either by redesign of the antenna or by an external parasitic structure of some sort, it would have to result in a narrower pattern. So you'd reduce the reception in some directions.

> I guess that loop should be 1wl circumference, or about 2 1/2 inch
> diameter, easy enought to cary in a pocket and play with.
>
> I know one can not have more than 0 dB with full omni, I just guess the
> minimalistic antenna in pocketable gps is way below 0 dB and could
> maybe be improved a little.

0 dB relative to what?

Once you get the desired coverage angle, the only way to improve the reception of the GPS is to improve the receiver signal/noise ratio. The only way you can do that from outside the GPS is to use an external antenna with a preamp having a lower noise figure than the GPS's receiver.

> Could this be modeled in EZNEC, one segment with some series resitance
> for high loss antenna and the other 19 to simulate the loop?

I'm not sure what the "high loss antenna" is. If you mean the GPS antenna, it's not high loss at all, but is likely very efficient. If it's a patch antenna, you can't model it at all with EZNEC. But even if it's a quadrifilar helix, you can't model it with one segment.

Roy Lewallen, W7EL

4689. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 06:14:17 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1134800057.187679.277490@g47g2000cwa.googlegroups.com>
Source record: 66486

west wrote:
> Anyone have experience with GAP Antennas? On paper they look almost too good
> to be true, but I know that word of mouth can be more informative. All
> comments welcomed.

"If it sounds too good to be true it probably isn't . . "

Here's a load of "opinions" on the Gap line:

http://www.eham.net/reviews/products/13

> west
> AF4GC

w3rv

4690. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 06:49:52 UTC
From: richardharrison@webtv.net
Message-ID: <23342-43A3B510-367@storefull-3252.bay.webtv.net>
Source record: 66488

Reg, G4FGQ wrote:
"What do photons have to do with winning a contest?"

I don`t know. But, B.Whitfield Griffith, Jr. has some observations in "Rado-Eledtronic Transmission Fundamentals" that may be a useful check on your computations. I expect he checked, rechecked, then checked again before publication. He put a transmitter on an elemental antenna but it would work the same in reverse. From page 325:

"An Elemental Antenna

Since the length of an antenna is commonly expressed in electrical degrees and since this allows the convenient use of trigonometric tables in computing the ratios of currents in various parts of an antenna, let us choose as our elemental antenna a piece of wire which is 1-degree in length and in which the current is constant from one end to the other.We shall first assume that this elemental antenna is located far out in space, so that its field is not disturbed by reflections from the surface of the earth or from any other object. This, of course, is a most improbable set of conditions, but we can certainly imagine that we have a situation such as this and compute from the field equations its electromagnetic result.

These computations will show, first of all, that the maximum field intensity will be produced in the directions which are at right angles to the direction of current flow. This is a reasonable result, since the magnetic field which is produced by the current surrounds the wire in concentric rings and thus gives rise to a radiation field which moves outward at right angles to the wire. As a matter of fact, the field intensity, measured according to our standard procedure at a distance of 1 mile in any direction from the radiating element, will be found to be proportional to the sine of the angle between the direction of the current flow and the direction in which the measurement is taken. If we represent the field intensity at 1 mile in any direction by the length of a vector starting at the center of the element and extending in that direction, the tips of the vectors will mark out the radiation pattern of the antenna element. A cross section of the entire radiation pattern of this element is shown in Fig. 39-2; the entire pattern would be obtained by rotating the figure about the axis of the antenna element.

But this pattern tells us only the relative signal strength in various directions; it is a normalized pattern, with the intensity in the direction of maximum radiation being considered simply as unity. We need much more information than this; we must know the relationship between the current and the actual value of the field it produces. Further computation from the field equations gives this relalationship; we find

that a current of 1 amp flowing in the antnna element will produce a field intensity of 0.3253 mv/m at a distance of 1 mile iin the direction of maximum radiation. We have said nothing about the frequency, and we do not need to; as long as the wavelength is shorter than 1 mile, so that there are no serious induction-ffield effects to upset our calculations, this figure will be correct at any frequencyfor which the length of the element is 1/360 wavelength.

The field intensity of the elemental antenna is directly proportional to the current. Therefore, if the current in the element is 15 amp, the field intensity will be 15 X 0.3253, or 4.8795, mv/m at 1 mile. Similarly, the field intensity is directly proportional to the length of the element; an element which is 2-degrees in length, carrying a current of 1 amp, will thus produce a maximum field intensity of 0.6506 mv/m at 1 mile.

Best regards, Richard Harrison, KB5WZI

4691. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 06:58:00 UTC
From: Charlie <charlie@play.com>
Message-ID: <11q7do4sfiuu6ec@news.supernews.com>
Source record: 66489

Have you considered the Hustler 4 or 5 or 6 BTV line?
I have added 12M and 17M to my 5-BTV and now have what I call a Hustler
7-BTV (10,12,15,17,20,40 and 80M)
Cost me $10 and about 2 hours time start to finish...

Details, photos, parts list etc here
1. http://www.ad5th.com/5-BTV-WARC.html
--

Charlie

"west" <westley@tampabay.rr.com> wrote in message
news:H0Nof.37181$6e.33307@tornado.tampabay.rr.com...
> Anyone have experience with GAP Antennas? On paper they look almost too
> good
> to be true, but I know that word of mouth can be more informative. All
> comments welcomed.
>
> west
> AF4GC
>
>

4692. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 07:48:24 UTC
From: hillbilly3302 <davesradio@alltel.net>
Message-ID: <a64d5$43a3b49d$438d5898$8871@ALLTEL.NET>
Source record: 66487

I always tell new Hams to ground everything they can.... but if they get a direct hit then they will be too busy fighting fire to worry about the antenna...

-Dave-
K5DRC Since 1969
BULL SHOALES LAKE
http://www.bullshoals.org/lake.htm
AR/MO STATE LINE

Some day someone will give a WAR and nobody will go

"Owen Duffy" <owen@no.where> wrote in message
news:h4g6q11d07grvg4o8cc0mim6r5qsmsqteh@4ax.com...
> On Fri, 16 Dec 2005 11:20:53 -0500, "Robert11" <rgsros@notme.com>
> wrote:
>
>>Hello:
>>
>>Have been reading up on lightning a bit, and it certainly
>>is a confusing subject.
>>
>>Let's say I have an Inverted-L or a Sloper in the yard (receiving only).
>>
>>If a lightning storm is in the vicinity, obviously the best protection
>>possible is to just disconnect the radio from the antenna. No differences
>>of opinion here, I would imagine.
>>
>>But, as a more or less theoretical question, to minimize the possibility
>>of
>>lightning hitting the antenna at all, or inducing large voltages in it, is
>>it better to just leave the now "floating" antenna alone, or is it better
>>to
>>ground one end of it ?
>>
>>Why ?
>
> You have to think carefully about what you are trying to protect.
>
> It seems to me that in the event of a lightning stroke in the near
> vicinity of your antenna, large voltages will be induced in the
> antenna wrt "ground", whether or not your antenna or its support
> structure features as a streamer, or takes the current from a leader.
>
> That voltage may be sufficient for insulation breakdown, and charge

> will flow to ground via some path, not necessarily of your choosing.
> Substantial physical damage may occur where insulation breaks down,
> the path of the side-flash current may result in further damage to
> persons or equipment.
>
> If you make a substantial connection from the feedline to some thing,
> you have some degree of control over the path that the discharge
> current flows. Properly chosen and implemented, that might be better
> than doing nothing, but if poorly designed or implemented, it could be
> worse than doing nothing. Side-flash can still occur where you have
> provided a path to ground.
>
> Very often, the target of effective lighting protection of radio
> installations is minimisation of voltage drops or potential
> differences internal to an installation as a result of lightning
> discharge current rather than trying to minimise the voltage to
> "ground" resulting from the current.
>
> Owen
> --

4693. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 07:52:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q7gujb3kps066@corp.supernews.com>
Source record: 66490

Richard Harrison wrote:
>
> I don`t know. But, B.Whitfield Griffith, Jr. has some observations in
> "Rado-Eledtronic Transmission Fundamentals" that may be a useful check
> on your computations. I expect he checked, rechecked, then checked again
> before publication. He put a transmitter on an elemental antenna but it
> would work the same in reverse. From page 325:

Yes, it should.

> . . .
> . . . We need
> much more information than this; we must know the relationship between
> the current and the actual value of the field it produces. Further
> computation from the field equations gives this relalationship; we find
> that a current of 1 amp flowing in the antnna element will produce a
> field intensity of 0.3253 mv/m at a distance of 1 mile iin the direction
> of maximum radiation. . .
>
> The field intensity of the elemental antenna is directly proportional to
> the current. Therefore, if the current in the element is 15 amp, the
> field intensity will be 15 X 0.3253, or 4.8795, mv/m at 1 mile.
> Similarly, the field intensity is directly proportional to the length of
> the element; an element which is 2-degrees in length, carrying a current
> of 1 amp, will thus produce a maximum field intensity of 0.6506 mv/m at
> 1 mile.

A short dipole antenna with 1 amp of current at the center has an
average of 0.5 amp of current along the whole length. So it should be
obvious from the above analysis that the field from a dipole is half the
field from the elemental antenna with uniform current which the author
is discussing. Or, instead of just taking the average, you can integrate
I * delta L to get the same result.

Roy Lewallen, W7EL

4694. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 13:15:15 UTC
From: Steve Duncan <Duncansa@Bellsouth.net>
Message-ID: <mq38q15agijio3tjtr684tbj1mooc61pbj@4ax.com>
Source record: 66491

I bought a Gap Titan a few years ago because it is a vertical dipole.
It has been a satisfactory antenna. It is noticably quieter than a
1/4 vertical and there's no need for the ground screen neccessary to
make a 1/4 wave vertical work.

I have it mounted in my back yard on a pipe driven into the ground. It
is about three feet off the ground.

It's pretty much worthless on 75M and marginal on 40M. On 20M and up
it does OK. Depending on the time of year, it performs better than
the W5GI I have at 40 ft. I prefer it to any of the 1/4 wave
verticals I have used.

Steve, WA4ITA

On Sat, 17 Dec 2005 05:05:43 GMT, "west" <westley@tampabay.rr.com>
wrote:

>Anyone have experience with GAP Antennas? On paper they look almost too good
>to be true, but I know that word of mouth can be more informative. All
>comments welcomed.
>
>west
>AF4GC
>

4695. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 14:13:26 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <lq68q1dm4j327br6evgft4p7mj5fqlqete@4ax.com>
Source record: 66492

On Fri, 16 Dec 2005 22:09:02 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Toni wrote:
>> Hi,
>>
>> I've seen here before suggestions about using a tuned loop to increase
>> the gain of radio controlled clocks. Do you think this could also be
>> used to increase the gain of a gps receiver?
>
>No. If you were to increase the gain of your GPS antenna, either by
>redesign of the antenna or by an external parasitic structure of some
>sort, it would have to result in a narrower pattern. So you'd reduce the
>reception in some directions.

Heh heh. This can also be beneficial... I was slightly involved with
this a few years ago:

"Raytheonï¿½s Anti-jam GPS Receiver (AGR) supports the Tactical Tomahawk
missile program. The AGR is a PPS (i.e., Y-code) GPS receiver that
operates on both the L1 and L2 frequencies. When configured with a
multi-element Controlled Reception Pattern Antenna (CRPA), the AGRï¿½s
post-correlation nulling techniques allow continued satellite track in
the presence of high levels of hostile jamming.

The AGRï¿½s patented approach to anti-jam also implements satellite beam
steering, to further enhance the tracking thresholds, and to mitigate
the ï¿½spurious nullsï¿½ that can degrade the performance of other nulling
implementations (e.g., pre-correlation).

The AGR sequentially tracks up to eight visible satellites, and
provides high-quality pseudorange/delta pseudorange (PR/DPR)
measurements corrected for the effects of selective availability. The
Tactical Tomahawkï¿½s navigation processor then uses the PR/DR
measurements to yield a high-performance navigation solution."

ref: http://www.raytheon.com/products/pgs/

4696. Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 15:01:28 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43a42506@fidonet.org>
Source record: 66493

Hi,

I was thinking about why radio wave communications are not generally used underwater. Basically I'm asking what are the quantitative components of the underwater medium that makes it impractical except for perhaps very short ranges. Things like attenuation, impedance, etc... Does any one here know these details or have them handy?

A*s*i*m*o*v

... Acme Corp: Unlimited credit for disadvantaged coyotes.

4697. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 15:58:22 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <ooWdnVV5mpUGqDnenZ2dnUVZ_sKdnZ2d@web-ster.com>
Source record: 66494

Asimov wrote:

> Hi,
>
> I was thinking about why radio wave communications are not generally
> used underwater. Basically I'm asking what are the quantitative
> components of the underwater medium that makes it impractical except
> for perhaps very short ranges. Things like attenuation, impedance,
> etc... Does any one here know these details or have them handy?
>
> A*s*i*m*o*v
>
> ... Acme Corp: Unlimited credit for disadvantaged coyotes.
>

The conductivity of water causes great attenuation at all but very low frequencies. Think "skin effect".

That having been said, the US Navy (and probably all other folks with subs) use extremely low frequency RF (30kHz IIRC) to communicate with strategic nuclear subs.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4698. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 15:59:23 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11q8devosgcmp2b@corp.supernews.com>
Source record: 66495

I picked up a used one last sprng, set it up about 3 ft off the ground in the back yard...and took it back down within a couple of weeks.
Signals were way down compared to my 450 ohm ladder line fed 80 meter doublet on all bands.
I remade the Titian into a 40 ft vertical dipole that I use on 40 thru 10 meters, fed with twin lead, and much better results.
"west" <westley@tampabay.rr.com> wrote in message news:H0Nof.37181$6e.33307@tornado.tampabay.rr.com...
> Anyone have experience with GAP Antennas? On paper they look almost too
> good
> to be true, but I know that word of mouth can be more informative. All
> comments welcomed.
>
> west
> AF4GC
>
>

4699. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 16:15:35 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <HQWof.42734$Zv5.24256@newssvr25.news.prodigy.net>
Source record: 66496

Denton wrote:
> I picked up a used one last sprng, set it up about 3 ft off the ground in
> the back yard...and took it back down within a couple of weeks.
> Signals were way down compared to my 450 ohm ladder line fed 80 meter
> doublet on all bands.

I had the same experience with a 1/4WL 40m vertical. Now I wish
I had run some A/B transmitting tests as well as the A/B
receiving tests which the vertical flunked mainly due to an
extremely high noise level. I'm thinking about putting the
vertical back up as a 1/4WL 30m vertical fed at the base with
an SGC-230 that I already have. Such an antenna should work
pretty well on 40m-10m, at least for transmitting.
--
73, Cecil http://www.qsl.net/w5dxp

4700. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 17:27:46 UTC
From: EE123 <onyx49@juno.com>
Message-ID: <1134840466.191509.133910@g47g2000cwa.googlegroups.com>
Source record: 66497

Richard Harrison wrote:
> Reg, G4FGQ wrote:
> "What do photons have to do with winning a contest?"
>
> I don`t know. But, B.Whitfield Griffith, Jr. has some observations in
> "Rado-Eledtronic Transmission Fundamentals" that may be a useful check
> on your computations. I expect he checked, rechecked, then checked again
> before publication. He put a transmitter on an elemental antenna but it
> would work the same in reverse. From page 325:
>
> "An Elemental Antenna
>
> Since the length of an antenna is commonly expressed in electrical
> degrees and since this allows the convenient use of trigonometric tables
> in computing the ratios of currents in various parts of an antenna, let
> us choose as our elemental antenna a piece of wire which is 1-degree in
> length and in which the current is constant from one end to the other.We
> shall first assume that this elemental antenna is located far out in
> space, so that its field is not disturbed by reflections from the
> surface of the earth or from any other object. This, of course, is a
> most improbable set of conditions, but we can certainly imagine that we
> have a situation such as this and compute from the field equations its
> electromagnetic result.
>
> These computations will show, first of all, that the maximum field
> intensity will be produced in the directions which are at right angles
> to the direction of current flow. This is a reasonable result, since the
> magnetic field which is produced by the current surrounds the wire in
> concentric rings and thus gives rise to a radiation field which moves
> outward at right angles to the wire. As a matter of fact, the field
> intensity, measured according to our standard procedure at a distance of
> 1 mile in any direction from the radiating element, will be found to be
> proportional to the sine of the angle between the direction of the
> current flow and the direction in which the measurement is taken. If we
> represent the field intensity at 1 mile in any direction by the length
> of a vector starting at the center of the element and extending in that
> direction, the tips of the vectors will mark out the radiation pattern
> of the antenna element. A cross section of the entire radiation pattern
> of this element is shown in Fig. 39-2; the entire pattern would be
> obtained by rotating the figure about the axis of the antenna element.
>
> But this pattern tells us only the relative signal strength in various
> directions; it is a normalized pattern, with the intensity in the
> direction of maximum radiation being considered simply as unity. We need

> much more information than this; we must know the relationship between
> the current and the actual value of the field it produces. Further
> computation from the field equations gives this relalationship; we find
> that a current of 1 amp flowing in the antnna element will produce a
> field intensity of 0.3253 mv/m at a distance of 1 mile iin the direction
> of maximum radiation. We have said nothing about the frequency, and we
> do not need to; as long as the wavelength is shorter than 1 mile, so
> that there are no serious induction-ffield effects to upset our
> calculations, this figure will be correct at any frequencyfor which the
> length of the element is 1/360 wavelength.
>
> The field intensity of the elemental antenna is directly proportional to
> the current. Therefore, if the current in the element is 15 amp, the
> field intensity will be 15 X 0.3253, or 4.8795, mv/m at 1 mile.
> Similarly, the field intensity is directly proportional to the length of
> the element; an element which is 2-degrees in length, carrying a current
> of 1 amp, will thus produce a maximum field intensity of 0.6506 mv/m at
> 1 mile.
>
> Best regards, Richard Harrison, KB5WZI

How did you get .3253 mv/m at 1 miles?

Dave

4701. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 17:49:13 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <3hj8q19qtonh9l08563ec3c2j23btla05u@4ax.com>
Source record: 66500

On Sat, 17 Dec 2005 01:48:24 -0600, " hillbilly3302"
<davesradio@alltel.net> wrote:

>I always tell new Hams to ground everything they can.... but if they get a
>direct hit then they will be too busy fighting fire to worry about the
>antenna...

~~~~~~

This summer my 80 foot tower took a direct hit, the first in my 48
years of hamming. The tower was grounded and there was no fire, but it
tripped a circuit breaker in my house and damaged a radio connected to
it. My point is that fire is not an automatic consequence.

Incidentally, the sound of thunder from a hit that close is remarkably
different from a hit some distance away. First, you hear the clap from
the nearest part of the bolt and then from parts successively farther
away, a long, rolling sound that continues much longer than one at a
distance. If I don't ever hear it again, that will be ok by me. :-)

73, Bill W6WRT
~~~~~~

4702. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 17:50:34 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <40597$43a44fe5$42513e92$9501@DIALUPUSA.NET>
Source record: 66498

How did you quote damned near 75 lines of text to ask a 9 word question?

Jim

"EE123" <onyx49@juno.com> wrote in message
news:1134840466.191509.133910@g47g2000cwa.googlegroups.com...

>> Best regards, Richard Harrison, KB5WZI
>
>
>
> How did you get .3253 mv/m at 1 miles?
>
> Dave
>

4703. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 17:55:08 UTC
From: Denton <denton@oregontrail.net>
Message-ID: <11q8k7ui4660548@corp.supernews.com>
Source record: 66499

Hi Cecil....let us know if you do that. When I redid the back yard lawn, I installed an extensive buried radial system for such experimentation. I have all the aluminum tubing left over from the Titian's tuning stubbs to turn my 40 ft vertical dipole into something wth some capacity hats...to get it to work on 80 thru 20 meters, if I desire.
"Cecil Moore" <mycall@arrl.net> wrote in message news:HQWof.42734$Zv5.24256@newssvr25.news.prodigy.net...
> Denton wrote:
>> I picked up a used one last spring, set it up about 3 ft off the ground in
>> the back yard...and took it back down within a couple of weeks.
>> Signals were way down compared to my 450 ohm ladder line fed 80 meter
>> doublet on all bands.
>
> I had the same experience with a 1/4WL 40m vertical. Now I wish
> I had run some A/B transmitting tests as well as the A/B
> receiving tests which the vertical flunked mainly due to an
> extremely high noise level. I'm thinking about putting the
> vertical back up as a 1/4WL 30m vertical fed at the base with
> an SGC-230 that I already have. Such an antenna should work
> pretty well on 40m-10m, at least for transmitting.
> --
> 73, Cecil http://www.qsl.net/w5dxp

4704. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 19:01:28 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11q8o4cqvcda5f5@corp.supernews.com>
Source record: 66501

Bill Turner wrote:

> On Sat, 17 Dec 2005 01:48:24 -0600, " hillbilly3302"
> <davesradio@alltel.net> wrote:
>
>
>>I always tell new Hams to ground everything they can.... but if they get a
>>direct hit then they will be too busy fighting fire to worry about the
>>antenna...
>
>
> ~~~~~~
>
> This summer my 80 foot tower took a direct hit, the first in my 48
> years of hamming. The tower was grounded and there was no fire, but it
> tripped a circuit breaker in my house and damaged a radio connected to
> it. My point is that fire is not an automatic consequence.
>
> Incidentally, the sound of thunder from a hit that close is remarkably
> different from a hit some distance away. First, you hear the clap from
> the nearest part of the bolt and then from parts successively farther
> away, a long, rolling sound that continues much longer than one at a
> distance. If I don't ever hear it again, that will be ok by me. :-)
>
> 73, Bill W6WRT

Bill;

Ain't been there, Ain't done that, Don't want no stinkin t-shirt. ;^)

Seriously though glad that nothing really serious happened. When I was
in retain sales I sold many electronic items to people that suffered
both direct and indirect hits. Lots of damage no injuries everyone was
lucky.

Dave WD9BDZ

4705. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 19:01:37 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <lgZof.39630$tV6.39236@newssvr27.news.prodigy.net>
Source record: 66502

"Bill Turner" <noway@nohow.com> wrote in message
news:3hj8q19qtonh9l08563ec3c2j23btla05u@4ax.com...
> On Sat, 17 Dec 2005 01:48:24 -0600, " hillbilly3302"
> <davesradio@alltel.net> wrote:
> This summer my 80 foot tower took a direct hit, the first in my 48
> years of hamming. The tower was grounded and there was no fire, but it
> tripped a circuit breaker in my house and damaged a radio connected to
> it. My point is that fire is not an automatic consequence.
>
> Incidentally, the sound of thunder from a hit that close is remarkably
> different from a hit some distance away. First, you hear the clap from
> the nearest part of the bolt and then from parts successively farther
> away, a long, rolling sound that continues much longer than one at a
> distance. If I don't ever hear it again, that will be ok by me. :-)
>
> 73, Bill W6WRT

Long years ago, 50 yearsor so before I reached Ham status, a thunderstorm awakened me in the wee hours and proceeded to dance around in the shallow hill pasture near the house. Stroke after stroke occurred and all so near I could hear a loud click as the strike occurred and then the diminishing rumble. I still haven't figured out the initial click sound, it came from outside so wasn't a house internal electric phenomenon.

Harold
KD5SAK

4706. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 19:06:27 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11q8odoll28kde5@corp.supernews.com>
Source record: 66503

Tim Wescott wrote:

> Asimov wrote:
>
>> Hi,
>>
>> I was thinking about why radio wave communications are not generally
>> used underwater. Basically I'm asking what are the quantitative
>> components of the underwater medium that makes it impractical except
>> for perhaps very short ranges. Things like attenuation, impedance,
>> etc... Does any one here know these details or have them handy?
>>
>> A*s*i*m*o*v
>>
>> ... Acme Corp: Unlimited credit for disadvantaged coyotes.
>>
> The conductivity of water causes great attenuation at all but very low
> frequencies. Think "skin effect".
>
> That having been said, the US Navy (and probably all other folks with
> subs) use extremely low frequency RF (30kHz IIRC) to communicate with
> strategic nuclear subs.
>

Penetration of water by radio waves is directly proportional to
wavelength. The longer the wave length the further the penetration of
water. That's why the Navy uses extremely long wave length signals to
contact deep submergence subs. Even then it takes a very long time to
transmit a very short three or four letter message. Of course the sub
then has to raise up to just below the surface and extend an antenna
mast to contact the COMNAVSAT for its full message.

Dave WD9BDZ

4707. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 19:21:49 UTC
From: richardharrison@webtv.net
Message-ID: <23342-43A4654D-432@storefull-3252.bay.webtv.net>
Source record: 66504

EEE 123 wrote:
"How do you get .3253 mv/m at 1 mile?"

The formula to calculate the field strength produced by an dlementaarry doublet is difficult for me to reproduce with my keyboard. It is found on page 770 of Terman`s 1943 "Radio Sngineers` Handbook. In my prior posting, Griffith hhas done the work for us.

Best regards, Richard Harrison, KB5WZI

4708. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 19:37:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <FNZof.42856$D13.30587@newssvr11.news.prodigy.com>
Source record: 66505

Bill Turner wrote:
> If I don't ever hear it again, that will be ok by me. :-)

Consider that there might be two ways that you would never
hear it again and one is NOT OK. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4709. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 20:44:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q8u4qpl7fft16@corp.supernews.com>
Source record: 66506

The attenuation of a radio signal through water is staggeringly high except at extremely low frequencies. Fresh water is lossy for two reasons: one is that the polar molecules attempt to align themselves with the oscillating electric field. This physical motion results in loss. The other is that "fresh" water generally has dissolved salts which increase its conductivity. Salt water's loss is dominated simply by its conductivity.

Here are a few numbers for attenuation per meter. It's hard to find good data on loss in real fresh water, but I did locate a representative number for one frequency.

F MHz Fresh water Salt water
0.01 3.9 dB
0.1 12
1 39
10 121
100 ~ 50 dB 369

Roy Lewallen, W7EL

Asimov wrote:
> Hi,
>
> I was thinking about why radio wave communications are not generally
> used underwater. Basically I'm asking what are the quantitative
> components of the underwater medium that makes it impractical except
> for perhaps very short ranges. Things like attenuation, impedance,
> etc... Does any one here know these details or have them handy?
>
> A*s*i*m*o*v
>
> ... Acme Corp: Unlimited credit for disadvantaged coyotes.
>

4710. Re: WorldRadio Magazine Article

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 22:03:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <QW%of.34239$dO2.21669@newssvr29.news.prodigy.net>
Source record: 66507

Frank wrote:
> Thanks Cecil, very interesting. Will look forward to reading your other
> articles.

Part II was published in the Dec. 2005 edition of WorldRadio. I have
combined Parts I+II and posted it to my web page below.
--
73, Cecil http://www.qsl.net/w5dxp/energy.htm

4711. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 22:20:11 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <2p29q1lcl44g6rrnluqv7h9r70ca3k8tu6@4ax.com>
Source record: 66508

On Fri, 16 Dec 2005 22:55:09 GMT, Owen Duffy <owen@no.where> wrote:

>Very often, the target of effective lighting protection of radio
>installations is minimisation of voltage drops or potential
>differences internal to an installation as a result of lightning
>discharge current rather than trying to minimise the voltage to
>"ground" resulting from the current.

I should have expanded that to say:

Minimisation of potential differences is often obtained by one or more
of:
- providing an alternate low impedance path to ground so that less
current flows through the equipment room;
- single point earthing to reduce the voltage drop in earthing
conductors internal to the equipment room;
- equipotential bonding to reduce the voltage drop between the
equipment room earth and other parts of the building, and other
services or structures (eg water, gas, telephone, power).

There may be standards or codes that apply to lighting protection in
your area, they are worth checking, and while they may not mandate
lighting protection, they may mandate the way in which it is done if
it is done. That may have implications for your insurance.

Effective lightning protection is a very expensive business, and if
you don't need "continuous operation" and have a simple configuration,
it is much cheaper and effective to ensure that feedlines and similar
conductors (like rotator cables) are totally disconnected from the
shack at times of high risk.

Owen
--

4712. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 22:45:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q957rdvpv4m34@corp.supernews.com>
Source record: 66509

I hope this will format better (viewed with fixed width font):

F MHz Fresh water Salt water
0.01 3.9 dB
0.1 12
1 39
10 121
100 ~ 50 dB 369

Roy Lewallen, W7EL

Roy Lewallen wrote:
> . . .
> Here are a few numbers for attenuation per meter. It's hard to find good
> data on loss in real fresh water, but I did locate a representative
> number for one frequency.
>
> F MHz Fresh water Salt water
> 0.01 3.9 dB
> 0.1 12
> 1 39
> 10 121
> 100 ~ 50 dB 369

4713. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 22:48:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q95dgt1j45l93@corp.supernews.com>
Source record: 66510

kd5sak wrote:
>
> Long years ago, 50 yearsor so before I reached Ham status, a thunderstorm
> awakened me in the wee hours and proceeded to dance around in the shallow
> hill pasture near the house. Stroke after stroke occurred and all so near I
> could hear a loud click as the strike occurred and then the diminishing
> rumble. I still haven't figured out the initial click sound, it came from
> outside so wasn't a house internal electric phenomenon.

I've read that this click is due to the ear's reaction to the strong electromagnetic pulse. If that's what you heard, it comes from the ear itself, not from outside.

Roy Lewallen, W7EL

4714. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 23:18:47 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <r11pf.6612$Dd2.4218@newsread3.news.atl.earthlink.net>
Source record: 66511

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11q95dgt1j45l93@corp.supernews.com...
> kd5sak wrote:
> >
> > Long years ago, 50 yearsor so before I reached Ham status, a
thunderstorm
> > awakened me in the wee hours and proceeded to dance around in the
shallow
> > hill pasture near the house. Stroke after stroke occurred and all so
near I
> > could hear a loud click as the strike occurred and then the diminishing
> > rumble. I still haven't figured out the initial click sound, it came
from
> > outside so wasn't a house internal electric phenomenon.
>
> I've read that this click is due to the ear's reaction to the strong
> electromagnetic pulse. If that's what you heard, it comes from the ear
> itself, not from outside.
>
> Roy Lewallen, W7EL

This is the first time I have seen it mentioned the ear reacting to the electromagnetic pulse. Most of the time it is described as the same way the old WW2 depth charges sounded in the submarines. YOu get the click and then the boom. I forgot the term used but it is something like an impulse or pressure shock wave traveling faster than the speed of sound and then the actual sound wave.

4715. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-17 23:27:09 UTC
From: DrDeath <drdeath555usb@nospam.yahoo.com>
Message-ID: <11q97mfbt474cda@corp.supernews.com>
Source record: 66512
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
news:dnuq09$61c$1@newsg3.svr.pol.co.uk...
>
>> >> Pray for me to win the lottery please :O)
>> >>
>> >> Regards,
>> >> Graham
>> >
>> > You have to watch the movie "Bruce Almighty". I did that once! 14,000
>> > winners of $17 each or something like that :-0
>> >
>>
>> I watched that movie 4 times, I didn't win any money.
>
> That's because Amos (eyy up Mr wilks ;o) wasn't praying for you...
>
> Regards,
> Graham
> --
> _·_· _··· ·_· ·_ _·· ·· _ _ _
>
> Radio is only a Hobby. Don't let it rule your life...
>
> 73's - Graham (www.open-channel.co.uk)
>
>

Well that's not very Christian like of him.

4716. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 00:16:49 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <6d2dne0J6MFwNDnenZ2dnUVZ_tydnZ2d@bright.net>
Source record: 66513

Slight correction...our (U.S.) subs using ELF worked at about 50-80 Hz.
I worked at one of the land-based transmitters for 5 years.

Scott

Tim Wescott wrote:

> Asimov wrote:
>
>> Hi,
>>
>> I was thinking about why radio wave communications are not generally
>> used underwater. Basically I'm asking what are the quantitative
>> components of the underwater medium that makes it impractical except
>> for perhaps very short ranges. Things like attenuation, impedance,
>> etc... Does any one here know these details or have them handy?
>>
>> A*s*i*m*o*v
>>
>> ... Acme Corp: Unlimited credit for disadvantaged coyotes.
>>
> The conductivity of water causes great attenuation at all but very low
> frequencies. Think "skin effect".
>
> That having been said, the US Navy (and probably all other folks with
> subs) use extremely low frequency RF (30kHz IIRC) to communicate with
> strategic nuclear subs.
>

4717. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 01:48:21 UTC
From: nm5k@wt.net
Message-ID: <1134870501.772593.144520@z14g2000cwz.googlegroups.com>
Source record: 66514

I've read that this click is due to the ear's reaction to the strong
electromagnetic pulse. If that's what you heard, it comes from the ear
itself, not from outside.....

According to old Gary Coffman posts, he says it's picked up by the
auditory nerve. Also, deaf people can hear that click.
I've had two strikes to my mast with me sitting 15 ft away from the
base of the mast. I could hear that click, but I also could hear
the arc sound of the strike going to ground outside. Sounded
like a light bulb being thrown to the ground outside my window.
Not that loud really. I'm fairly convinced the quality of the ground
connection effects the loudness of the strike. The strikes that hit
my well grounded mast are fairly quiet, not counting the overhead
sonic boom. The strikes to the trees in the yard are super loud
in comparison. A loud crack, instead of the quieter arc sound.
MK

4718. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 01:58:52 UTC
From: nm5k@wt.net
Message-ID: <1134871132.828416.179480@z14g2000cwz.googlegroups.com>
Source record: 66515

But, as a more or less theoretical question, to minimize the
possibility of
lightning hitting the antenna at all, or inducing large voltages in it,
is
it better to just leave the now "floating" antenna alone, or is it
better to
ground one end of it ?

Why ?.....

I prefer to ground all the feedlines. I have a ground strip outside
my window with a bunch of SO-239's. I just screw em all in when
bad wx is around. I doubt it will make much difference as to the
likelyhood of being struck. Horizontal wire antennas are not struck
that often compared to verticals, trees, etc.
But if it is, I'd prefer it to be grounded to reduce flashing, etc.
My metal mast takes the brunt of the strikes to ground. All
my grounding of the feedline does is take any left over energy
on the coax to ground. Same for induced energy from near
strikes. And it can be a good bit, as I actually can hear my
connectors arc with nearby strikes. Never leave antenna wires,
or feedline ends in the house, or in bottles, etc..You want it
out of the house if it's not protected. Even if using a grounded
switch, etc, I'd prefer not to have it running through the house.
IE: ground wire leading along the wall, etc to the switch to
ground it. Most switches ground the unused connectors, or
have a ground position. I don't like those in the house if the
feed is unprotected by gas tubes, etc...
MK

4719. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 02:48:10 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <K54pf.39791$tV6.19213@newssvr27.news.prodigy.net>
Source record: 66516

<nm5k@wt.net> wrote in message
news:1134870501.772593.144520@z14g2000cwz.googlegroups.com...
> I've read that this click is due to the ear's reaction to the strong
> electromagnetic pulse. If that's what you heard, it comes from the ear
> itself, not from outside.............................
>
> According to old Gary Coffman posts, he says it's picked up by the
> auditory nerve. Also, deaf people can hear that click.

Thanks OM, I've wondered for nearly 50 years what the "click"
mechanism was. I've told the story several times, but never to anyone
I thought it would be useful to ask for an explanation of the "click".

Harold
KD5SAK

4720. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 03:10:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q9kp64odvvu17@corp.supernews.com>
Source record: 66517

nm5k@wt.net wrote:
> I've read that this click is due to the ear's reaction to the strong
> electromagnetic pulse. If that's what you heard, it comes from the ear
> itself, not from outside.............................
>
> According to old Gary Coffman posts, he says it's picked up by the
> auditory nerve. Also, deaf people can hear that click.
> I've had two strikes to my mast with me sitting 15 ft away from the
> base of the mast. I could hear that click, but I also could hear
> the arc sound of the strike going to ground outside. Sounded
> like a light bulb being thrown to the ground outside my window.
> Not that loud really. I'm fairly convinced the quality of the ground
> connection effects the loudness of the strike. The strikes that hit
> my well grounded mast are fairly quiet, not counting the overhead
> sonic boom. The strikes to the trees in the yard are super loud
> in comparison. A loud crack, instead of the quieter arc sound.
> MK

I couldn't remember where I picked it up, but that's probably where.
Thanks. But I wasn't able to find any reference to that phenomenon in a
brief web search, so it might not be true.

Roy Lewallen, W7EL

4721. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 03:12:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11q9kt36n4utv5e@corp.supernews.com>
Source record: 66518

Ralph Mowery wrote:
>
> This is the first time I have seen it mentioned the ear reacting to the
> electromagnetic pulse. Most of the time it is described as the same way
> the old WW2 depth charges sounded in the submarines. YOu get the click and
> then the boom. I forgot the term used but it is something like an impulse
> or pressure shock wave traveling faster than the speed of sound and then the
> actual sound wave.

I do believe that any mechanical wave, such as a pressure or shock wave, travels at the speed of sound, no more and no less. To travel faster, it would have to be an electromagnetic wave.

Roy Lewallen, W7EL

4722. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 04:32:29 UTC
From: richardharrison@webtv.net
Message-ID: <27482-43A4E65D-609@storefull-3255.bay.webtv.net>
Source record: 66520

Reg, G4FGQ wrote:
"Just a number please."

Given 1 volt per m as the field strength, and a 1-m antenna parallel to the electric vector of the wave, the open-circuit voltage at the end of the wire is 1 volt. The best you can get across the receiver input is 0.5 volt when there is a conjugate match between the receiver and the antennna.

Most of the explanations are irrelevant when the field strength is specified at the antenna.

Terman preached scientific gospel. He had proof to back what he said. In Terman`s 1943 "Radio Engineers` Handbook" he wrote:

"The strength of a radio wave is expressed in terms of the voltage stress produced in space by the electric field of the wave, and is usually expressed in either millivolts or microvolts stress per meter. The stress expressed this way is exactly the same voltage that the magnetic flux of the wave induces in a conductor one meter long when rhe wave sweeps across the conductor with the velocity of light." This is found on page 770.

There is no qualification or equivocation. Terman also posts the same statement with no change in substance on page 2 of his 1955 edition of "Electronic and Radio Engineerinng". It means what it plainly says.

Best regards, Richard Harrison, KB5WZI

4723. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 04:38:13 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11q9prkb4b1mt28@corp.supernews.com>
Source record: 66519

I can no longer resist the urge....

As with most things: it depends.

The whole antenna world knows that a short, thin, uniform metal rod that is normal to a conducting plane has an open circuit voltage at its base that is equal to one half of the size of the incident vertically polarized E field multiplied by the rod's length. Such an antenna has a "height" that is one half of its physical length.

Note: open circuit voltage
Note: short - less than 0.1 WL
Note: the current distribution of the subject rod tapers linearly to zero at the distant end of the rod
Note: the voltage or power delivered to something other than an open circuit is not discussed
Note: many references that discuss short rods are assuming a constant current along the rod's length - such rods have a "height" equal to their physical length

I have dealt with approximations of the subject device. In each case, an extremely high input impedance amplifying device is placed at the base of the antenna that has a known voltage amplification and a 50 ohm output impedance. Knowing that a close approximation of the open circuit voltage is amplified by a known amount, a calibrated, tuned voltmeter (at 50 ohms) is able to measure the size of vertically polarized E (with the usual uncertainties). (and a bit of arithmetic)

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

4724. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 07:03:23 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43a4ef9d@fidonet.org>
Source record: 66521

"Roy Lewallen" bravely wrote to "All" (17 Dec 05 12:44:06)
--- on the heady topic of "Re: Underwater"

RL> From: Roy Lewallen <w7el@eznec.com>
RL> Xref: core-easynews rec.radio.amateur.antenna:221425

RL> The attenuation of a radio signal through water is staggeringly high
RL> except at extremely low frequencies. Fresh water is lossy for two
RL> reasons: one is that the polar molecules attempt to align themselves
RL> with the oscillating electric field. This physical motion results in
RL> loss.
[,,,]

Thanks for the info. I had read that submarines communicated in a
band of a few 10's of Hz because of the problems with water. As for
the polar molecules aligning themselves, this implies it takes some
time to achieve. Thus there is a resonnant point in this and if there
is resonnance then there might be anti-resonnance too. Might you know
where this natural molecular resonnance is? Might this be the standard
microwave oven frequency?

A*s*i*m*o*v

4725. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 07:04:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do31l6$c6s$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66522

Richard (Harrison)

I'm sorry Richard, you have not anwered my question. I will repeat it.

"What is the voltage measured between the bottom end and ground of a
1metre high vertical antenna when the field strength is 1 volt per
metre?"

Assume a perfect ground and antenna height is much less than
1/4-wavelength.

A measured voltage is always relative to or is between TWO specified
points.

Reg, G4FGQ

4726. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 07:59:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a84aq1lah3lqffds1d86uer44rclo8462h@4ax.com>
Source record: 66523

On Sat, 17 Dec 2005 23:38:13 -0500, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

> I have dealt with approximations of the subject device. In each case,
>an extremely high input impedance amplifying device is placed at the base of
>the antenna that has a known voltage amplification and a 50 ohm output
>impedance. Knowing that a close approximation of the open circuit voltage
>is amplified by a known amount, a calibrated, tuned voltmeter (at 50 ohms)
>is able to measure the size of vertically polarized E (with the usual
>uncertainties). (and a bit of arithmetic)

Hi Mac,

I too, will jump in with alternatives to this short, thin rod feeding
an infinite Z. It makes for a simple specification, but when the
frequency begins to climb such is not very practical. Input Z's tend
to be dominated with strays and that "short" rod begins to become
enormous. Such artifacts of the MF era are quickly discarded.

The NIST methods (NIST technical note numbers 1309 and 1098) employ
resonant sized dipoles feeding a DC Hi R (and hence AC Hi Z load) at
the gap of the elements. By DC Hi R, the detector filter employs
50KOhm components in a balanced cascading filter that in turn feeds a
Hi R voltmeter through 250KOhm leads (carbon impregnated plastic
conductors to decouple both loading and induction).

Uncertainty, worst case, is 1dB.

Schelkunoff's algorithm is used to find the length of the dipole (no
real surprise here for halfwave length). The effective length is not
half, but rather closer to 62 - 63%.

73's
Richard Clark, KB7QHC

4727. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 08:43:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qa89qo8d8mmbb@corp.supernews.com>
Source record: 66524

Asimov wrote:
>
> Thanks for the info. I had read that submarines communicated in a
> band of a few 10's of Hz because of the problems with water. As for
> the polar molecules aligning themselves, this implies it takes some
> time to achieve. Thus there is a resonnant point in this and if there
> is resonnance then there might be anti-resonnance too. Might you know
> where this natural molecular resonnance is? Might this be the standard
> microwave oven frequency?

Sorry, I don't know. If any of the readers of this newsgroup do, I'd
really appreciate your enlightening us.

Roy Lewallen, W7EL

4728. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 08:45:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qa8crtbkspgec@corp.supernews.com>
Source record: 66525

Reg Edwards wrote:
> . . .
> A measured voltage is always relative to or is between TWO specified
> points.

And when measuring in the presence of a time-varying H field, those two specified points have to be physically very close together.

Roy Lewallen, W7EL

4729. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 08:52:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qa8rfircarnda@corp.supernews.com>
Source record: 66426

Richard Harrison wrote:
> Reg, G4FGQ wrote:
> "Just a number please."
>
> Given 1 volt per m as the field strength, and a 1-m antenna parallel to
> the electric vector of the wave, the open-circuit voltage at the end of
> the wire is 1 volt.

Relative to what? The other terminal has to be extremely close to the end of the wire in order for the voltage to be single valued.

The best you can get across the receiver input is
> 0.5 volt when there is a conjugate match between the receiver and the
> antennna.

Sorry, that's not just a little wrong, it's wrong by orders of magnitude. For example, a 1 meter long 10 mm diameter dipole, terminated in the complex conjugate of its self impedance (load Z = 0.8855 + j6030 ohms), in a 1 V/m field, has about 1667 volts across the load. Hardly a half volt!

> . . .

Roy Lewallen, W7EL

4730. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 10:52:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <si7aq1tuf6nl7u9ojqq91l35r59jsgr9c4@4ax.com>
Source record: 66427

On Sun, 18 Dec 2005 07:03:23 GMT, "Asimov"
<Asimov@-removethis-bbs.juxtaposition.dynip.com> wrote:

>"Roy Lewallen" bravely wrote to "All" (17 Dec 05 12:44:06)
> --- on the heady topic of "Re: Underwater"
>
> RL> From: Roy Lewallen <w7el@eznec.com>
> RL> Xref: core-easynews rec.radio.amateur.antenna:221425
>
> RL> The attenuation of a radio signal through water is staggeringly high
> RL> except at extremely low frequencies. Fresh water is lossy for two
> RL> reasons: one is that the polar molecules attempt to align themselves
> RL> with the oscillating electric field. This physical motion results in
> RL> loss.
>[,,,]
>
>Thanks for the info. I had read that submarines communicated in a
>band of a few 10's of Hz because of the problems with water.

The BW is a product of the information bit rate and the fundamental
frequency. Water enters the picture to drive the fundamental
frequency.

>As for the polar molecules aligning themselves, this implies it takes some
>time to achieve.

Displacement time by ionic polarization can be as short as s/10ï¿½ï¿½

>Thus there is a resonnant point in this and if there
>is resonnance then there might be anti-resonnance too. Might you know
>where this natural molecular resonnance is? Might this be the standard
>microwave oven frequency?

For water? salt water? at what temperature? Ice, whose relaxation
time can vary one order of magnitude for each 10ï¿½C, is considerably
different from water. Its conductivity plunges like a rock with
temperature too (at roughly the same rate) to become a nearly perfect
dielectric.

The relaxation time for Ice runs in the kilohertz whereas for water it
is in the high gigahertz (and has nothing to do with the microwave
oven frequency as simple heating shifts this relaxation time one order
of magnitude between freezing and boiling). Yes, 6 orders of
magnitude change when going from 0ï¿½ ice to 0ï¿½ water.

Attenuation figures may follow this post.

73's
Richard Clark, KB7QHC

4731. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 11:33:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qai96o29uk97c@corp.supernews.com>
Source record: 66428

Roy Lewallen wrote:
> . . .
> Sorry, that's not just a little wrong, it's wrong by orders of
> magnitude. For example, a 1 meter long 10 mm diameter dipole, terminated
> in the complex conjugate of its self impedance (load Z = 0.8855 + j6030
> ohms), in a 1 V/m field, has about 1667 volts across the load. Hardly a
> half volt!

For the casual reader, I should emphasize that this analysis, like all the others on this thread, assumes zero loss. The conditions I described could never be achieved in real life because of unavoidable loss. But it's important to first understand how a lossless system behaves before we add the complicating factor of loss.

Roy Lewallen, W7EL

4732. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 11:51:12 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <do3icl$s0$1@news6.svr.pol.co.uk>
Source record: 66429
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"DrDeath" <drdeath555usb@nospam.yahoo.com> wrote in message
news:11q97mfbt474cda@corp.supernews.com...
> "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> news:dnuq09$61c$1@newsg3.svr.pol.co.uk...
> >
> >> >> Pray for me to win the lottery please :O)
> >> >>
> >> >> Regards,
> >> >> Graham
> >> >
> >> > You have to watch the movie "Bruce Almighty". I did that once!
14,000
> >> > winners of $17 each or something like that :-0
> >> >
> >>
> >> I watched that movie 4 times, I didn't win any money.
> >
> > That's because Amos (eyy up Mr wilks ;o) wasn't praying for you...
> >

> Well that's not very Christian like of him.

Im sure he would pray for you if you asked him to, but please don't ask him
to pray for you until next week as I want to win it this week ;o)

Regards,
Graham
--
_._. _... ._. ._ _.. .. _ _ _

Radio is only a Hobby. Don't let it rule your life...

73's - Graham (www.open-channel.co.uk)

4733. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 13:30:38 UTC
From: Toni <devegades@gmail.com>
Message-ID: <1134912638.780711.72140@g43g2000cwa.googlegroups.com>
Source record: 66430

Hi Roy,

Thanks for the answer. Please don't think I'm trying to be "smart",
just curious about these things and not knowledeable enough.

Roy Lewallen wrote:
> Toni wrote:
> >
> > I've seen here before suggestions about using a tuned loop to increase
> > the gain of radio controlled clocks. Do you think this could also be
> > used to increase the gain of a gps receiver?
>
> No. If you were to increase the gain of your GPS antenna, either by
> redesign of the antenna or by an external parasitic structure of some
> sort, it would have to result in a narrower pattern. So you'd reduce the
> reception in some directions.

When talking about loop antennas people talk about "capture area".
Whatever that is, this seems to be what makes a ferrite bar antenna
more sensitive than the equivalent simple coil tuned to the same freq.
I know that by using a ferrite bar you are narrowing the pattern, but
I'd think that the main gain does not come from the pattern narrowing
but from "capture area increase" (again, please bear with my ignorance,
these are only my thoughts on what I've read on the Web)

> > I know one can not have more than 0 dB with full omni, I just guess the
> > minimalistic antenna in pocketable gps is way below 0 dB and could
> > maybe be improved a little.
>
> 0 dB relative to what?

An isotropic antenna; AFAIK a perfect isotropic antenna would have 0 dB
gain

> Once you get the desired coverage angle, the only way to improve the
> reception of the GPS is to improve the receiver signal/noise ratio. The
> only way you can do that from outside the GPS is to use an external
> antenna with a preamp having a lower noise figure than the GPS's receiver.

Please let me doubt that. For a given coverage angle you can't make
better than a perfect antenna, but you can certainly make worst (think
of a T2FD).

> I'm not sure what the "high loss antenna" is. If you mean the GPS
> antenna, it's not high loss at all, but is likely very efficient. If
> it's a patch antenna, you can't model it at all with EZNEC. But even if
> it's a quadrifilar helix, you can't model it with one segment.

I dont know how efficient they are, but I do know that normal commercial patch antennas are noticeably less efficient than helical ones, and then, for the helicals, I doubt that something aprox 1/10 wl is anything close to efficient. If this was to be true I'd love to build an equivalent 6.5 ft. helix to work on 20m!

73s, Toni

4734. Trade

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 15:07:45 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <5Xepf.183870$Hs.118503@tornado.ohiordc.rr.com>
Source record: 66431

Trade Drake L4-B in excellent working order for HyGain TH11DX/HamM rotator
in same good order.

Antennas can be shipped in cardboard concrete-form tubes :o)

73, DTradeave, N3HE
513-674-7202

4735. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 15:54:26 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1134921266.178997.255510@f14g2000cwb.googlegroups.com>
Source record: 66432

Looks to me like you are confusing "efficiency" with "directionality". That is, a small loop, or a short dipole, will have a low radiation resistance, and when it's small or short enough, the resistance in the conductors of the antenna becomes appreciable compared with the radiation resistance. That causes a loss of efficiency, because the signal energy ends up heating the wire resistance instead of being useful to the receiver. But a helix and a half-wave dipole will both be very nearly 100% efficient. The difference is that the helix is quite directional.

One way to get better reception would be to have a set of highly directional antennas (high gain antennas) that track a set of the visible satellites. Do you really want to do that? Or do you perhaps instead want an antenna that has a pattern that "sees" better in a cone with maybe a 25-40 degree elevation above the horizon, because the satellites directly overhead are not generally the problem? As is commonly the case, you should probably consider the whole system, not just one part of it. What, exactly, is the goal?

Cheers,
Tom

4736. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 15:58:58 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <6Hfpf.12069$wg4.4975@edtnps84>
Source record: 66433

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11q7a46jtvo9jf9@corp.supernews.com...
> Frank wrote:
>>
>> Repeating what was previously posted. The following model treats a 1
>> meter (perfect conductor) monopole, of 0.814 mm diameter, connected to a
>> perfectly conducting ground. I have applied a vertically polarized
>> incident E-field of 1 V/m (peak). The base of the antenna is loaded with
>> the antennas complex conjugate of 1.747 + j823.796. NEC2 computes the
>> current through the load as 0.2863 Amps (peak), which is 0.5001 V peak.
>> This appears to agree with Reg's program.
>> . . .
>
>> Possibly someone can point out if there are any errors in the following
>> code:
>>
>> CM 1 Meter Vertical
>> CE
>> GW 1 50 0 0 1 0 0 0 0.000814
>> GS 0 0 1
>> GE 1
>> GN 1
>> EX 1 1 1 0 90 0 0 1 1 1
>> LD 4 1 50 50 1.747 823.796
>> FR 0 3 0 0 19.9 0.1
>> RP 0 181 1 1000 -90 90 1.00000 1.00000
>> EN
>
> You've specified a plane wave of 1 V/m peak arriving in a horizontal
> direction over a ground plane. This results in a field strength of 2 V/m
> peak at the antenna. For more information about this, look at my postings
> over the last couple of weeks on the thread "Antenna reception theory".
>
> Roy Lewallen, W7EL

Not sure I really understand what is going on, but have been aware of your
previous postings, also on the NEC-list. What I should have said is that
the above program agrees with Reg's previous assumption -- but not with his
new program "grndwav4.exe". In any case, just to satisfy my curiosity, I
ran the following code, which is, in essence, almost identical to your
NEC-list post with 5.555.... kW input producing 1V/m peak at 1000m. The
following agrees exactly with Reg's new program.

CM Short Monopoles
CE

```
GW 1 50 0 0 1 0 0 0 0.000814
GW 2 50 1000 0 1 1000 0 0 0.000814
GS 0 0 1
GE 1
GN 1
EX 0 1 50 00 65698.12106 0.00000
LD 4 2 50 50 1.747 823.796
FR 0 3 0 0 19.9 0.1
RP 1 1 360 0000 0 0 1.00000 1.00000 1000
RP 0 181 1 1000 -90 45 1 1
EN
```

Noting the comments by others, obviously familiar with ATR measurement techniques, this exercise with NEC is purely academic. There is no way you could experimentally prove these results. Since I have never made measurements on an "Open-air" test site it will be interesting to verify Mac's assumptions, which I am sure are correct.

The confusions I have are now related to the fact that NEC results depend on how the incident E-field is generated. I will check all previous posting by Roy to see if I can figure out this anomaly. For some reason I have not received any update concerning the NEC list postings.

Frank

4737. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 16:30:22 UTC
From: fmmck@aol.com
Message-ID: <fmmck-1812051130220001@ac849d9b.ipt.aol.com>
Source record: 66434

In article <H0Nof.37181$6e.33307@tornado.tampabay.rr.com>, "west"
<westley@tampabay.rr.com> wrote:

> Anyone have experience with GAP Antennas? On paper they look almost too good
> to be true, but I know that word of mouth can be more informative. All
> comments welcomed.

West-

I've heard third-hand about one Ham Engineer who was having trouble
getting a Gap to perform to specs. After discussing it with the company,
he decided they misrepresent the antenna and is in the process of filing a
class-action suit against them. I couldn't find any information via
Google.

Fred

4738. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 16:41:47 UTC
From: nm5k@wt.net
Message-ID: <1134924107.312230.237810@z14g2000cwz.googlegroups.com>
Source record: 66435

I do believe that any mechanical wave, such as a pressure or shock
wave,
travels at the speed of sound, no more and no less. To travel faster,
it
would have to be an electromagnetic wave.

Also, the deaf person wouldn't hear the mechanical wave. Well,
unless they had "some" hearing still available. If it was proven that
a totally deaf person could hear it, that would pretty much nail it
down as
electromagnetic. If that came out to be true, then Coffmans theory
about the auditory nerve picking it up would probably be true unless
some other nerve was actually involved.
MK

4739. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 16:51:12 UTC
From: nm5k@wt.net
Message-ID: <1134924672.103452.158360@g14g2000cwa.googlegroups.com>
Source record: 66436

It is noticably quieter than a
1/4 vertical .....

Note...A red flag should always go up when noise is reduced
vs another antenna of the same basic type. :/
Worthless on 75m? If this is late at night when a vertical
"should " do well, I'd be concerned.
Myself, I've never been much of a fan of gap verticals.
But...I'll leave it at that.. I like regular ole full size verticals
in general. Only my mobile uses a stunted vertical.. :/
BTW..If the vertical is not a complete antenna, as in halfwave,
it needs a groundscreen no matter where on the radiator the
antenna is fed, if it's ground mounted. Even a half wave is
improved when ground mounted. Note that most BC stations
that run 1/2 waves, use 1/2 wave radial screens under them.
MK

4740. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 17:00:37 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11qb5bl3u0jdka1@corp.supernews.com>
Source record: 66437

Dear Richard:
I am obliged to you for your useful comments.
In the large TEM cells that I use to about 200 MHz (with care above about 150 MHz) a very small probe is inserted through the roof of the cell. That probe is used, with the sort of processing you mentioned, to provide one verification of the E inside of the cell. (The other verification comes from measuring the power going in and coming out of the cell, and the internal dimensions.) The probe-scheme's success is helped by the fact that E can go up to 200 v/m (or more) so a lot of signal is available.

Interesting things happen to some electronic equipment well before 200 v/m. A TEM cell with a spectrum analyzer can inform about what a device is radiating.

Still, outdoors, a one meter rod over a large ground screen placed well clear of other structures provides the means to measure (with reasonable uncertainties) the low TOA vertical E field up to 20 or so MHz.

A scheme that I saw at NBS circa 1975 (now NIST) to measure an estimate of total field uses orthogonal, very small doublets with diodes at their center. They received a patent on the idea. To bring the DC to a measuring device, lossy transmission lines were used so as to make the transmission lines "invisible" to the field. In other words, the step up from rod-and-screen is a big step.

In my youth, I measured VHF signals propagated by FM broadcast stations in the "hills" of West Va. to enhance the VHF propagation models that then existed. The purpose was to be able to predict interference to a radio astronomy site. We used tuned dipoles elevated some standard distance that I do not remember.

As many here have said: It is not easy to measure fields.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:a84aq1lah3lqffds1d86uer44rclo8462h@4ax.com...
> On Sat, 17 Dec 2005 23:38:13 -0500, "J. Mc Laughlin"
> <jcm@power-net.net> wrote:
>
> > I have dealt with approximations of the subject device. In each
case,
> >an extremely high input impedance amplifying device is placed at the base

of
> >the antenna that has a known voltage amplification and a 50 ohm output
> >impedance. Knowing that a close approximation of the open circuit
voltage
> >is amplified by a known amount, a calibrated, tuned voltmeter (at 50
ohms)
> >is able to measure the size of vertically polarized E (with the usual
> >uncertainties). (and a bit of arithmetic)
>
> Hi Mac,
>
> I too, will jump in with alternatives to this short, thin rod feeding
> an infinite Z. It makes for a simple specification, but when the
> frequency begins to climb such is not very practical. Input Z's tend
> to be dominated with strays and that "short" rod begins to become
> enormous. Such artifacts of the MF era are quickly discarded.
>
> The NIST methods (NIST technical note numbers 1309 and 1098) employ
> resonant sized dipoles feeding a DC Hi R (and hence AC Hi Z load) at
> the gap of the elements. By DC Hi R, the detector filter employs
> 50KOhm components in a balanced cascading filter that in turn feeds a
> Hi R voltmeter through 250KOhm leads (carbon impregnated plastic
> conductors to decouple both loading and induction).
>
> Uncertainty, worst case, is 1dB.
>
> Schelkunoff's algorithm is used to find the length of the dipole (no
> real surprise here for halfwave length). The effective length is not
> half, but rather closer to 62 - 63%.
>
> 73's
> Richard Clark, KB7QHC

4741. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 17:11:05 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43a58619@fidonet.org>
Source record: 66438

"Roy Lewallen" bravely wrote to "All" (18 Dec 05 00:52:58)
--- on the heady topic of "Re: Antenna reception theory"

RL> From: Roy Lewallen <w7el@eznec.com>
RL> Xref: core-easynews rec.radio.amateur.antenna:221453

RL> Richard Harrison wrote:
> Reg, G4FGQ wrote:
> "Just a number please."
>
> Given 1 volt per m as the field strength, and a 1-m antenna parallel to
> the electric vector of the wave, the open-circuit voltage at the end of
> the wire is 1 volt.

RL> Relative to what? The other terminal has to be extremely close to the
RL> end of the wire in order for the voltage to be single valued.

RL> The best you can get across the receiver input is
> 0.5 volt when there is a conjugate match between the receiver and the
> antennna.

RL> Sorry, that's not just a little wrong, it's wrong by orders of
RL> magnitude. For example, a 1 meter long 10 mm diameter dipole,
RL> terminated in the complex conjugate of its self impedance (load Z =
RL> 0.8855 + j6030 ohms), in a 1 V/m field, has about 1667 volts across
RL> the load. Hardly a half volt!

All this talk of high RF voltage has got me a little peckish.
Anyone up for hotdogs and smores?

A*s*i*m*o*v

... I'm precise. He's discriminating. You're picky.

4742. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 17:51:37 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <7fhpf.30969$BZ5.8675@newssvr13.news.prodigy.com>
Source record: 66439

I would like to hear more about that suit. I bought a GAP Titan many
years ago after listening to the hype (lies) from the GAP booth at
Dayton. The only thing that was not a lie is the reasonable match it had
on all bands, but then so does a dummy load.
Mike

Fred McKenzie wrote:
> In article <H0Nof.37181$6e.33307@tornado.tampabay.rr.com>, "west"
> <westley@tampabay.rr.com> wrote:
>
>
>>Anyone have experience with GAP Antennas? On paper they look almost too good
>>to be true, but I know that word of mouth can be more informative. All
>>comments welcomed.
>
>
> West-
>
> I've heard third-hand about one Ham Engineer who was having trouble
> getting a Gap to perform to specs. After discussing it with the company,
> he decided they misrepresent the antenna and is in the process of filing a
> class-action suit against them. I couldn't find any information via
> Google.
>
> Fred

4743. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 17:52:17 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43A5A1E0.AD041DBC@shaw.ca>
Source record: 66440

kd5sak wrote:
>
> "Bill Turner" <noway@nohow.com> wrote in message
> news:3hj8q19qtonh9l08563ec3c2j23btla05u@4ax.com...
> > On Sat, 17 Dec 2005 01:48:24 -0600, " hillbilly3302"
> > <davesradio@alltel.net> wrote:
> > This summer my 80 foot tower took a direct hit...
> >
> > 73, Bill W6WRT
>
> Long years ago, 50 yearsor so before I reached Ham status, a thunderstorm
> awakened me in the wee hours and proceeded to dance around in the shallow
> hill pasture near the house. Stroke after stroke occurred and all so near I
> could hear a loud click as the strike occurred and then the diminishing
> rumble. I still haven't figured out the initial click sound, it came from
> outside so wasn't a house internal electric phenomenon.
>
> Harold
> KD5SAK

A few years ago I was out fishing at my favorite pond. It had clouded
over, but had not yet begun to rain. All of a sudden I could feel myself
beginning to tingle, it seems to me it was more in the feet, there was
a sour taste in my mouth, and then all of a sudden a bolt from the blue
hit the pond not far from where I was standing -- scared the living heck
out of me. The buildup of the tingling was a matter of a few seconds,
then the bolt, so I still don't have full recollection of just where the
bolt hit. I jumped back and
landed on my butt, but other than that there was no damage. I quickly
gathered my gear (not trusting the statistic that it wouldn't hit twice
in the same place) and headed for the car. I sat in the car and watched
the pond to see if any fish came to the surface to see what happened but
no such luck! This was in the foothills of the rockies and I got quite a
light show till the storm passed over!

Irv VE6BP (still got a few lives to go!)
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm

Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4744. PAR EFL-SWL Antenna, & Inverted L Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 17:53:55 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <TdadnXV54pSyPzjeRVn-sg@comcast.com>
Source record: 66441

Hello:

Pretty much a beginner with this, but have been putting a fair amount of time into
trying to understand antenna radiation patterns. Guess I finally have to admit that I'm 3d challenged, and
frankly have difficulty in visualizing them.

So, let me just ask:

Am thinking of purchasing a PAR EFL- SWL receive only antenna for my attic. Can probably be considered as an end fed dipole
Will probably run it as an inverted L, with the vertical section being about 10 feet, and going from the attic to the floor below where the radio is. As the total length is 45', this would leave 35 feet going horizontally.
(placing outside would not be practical)

Interested in as omni as possible, as do listening most anywhere from 0.5 to 30 MHz.

Have two questions, please:

a. anyone ever use this antenna ? Think it would be "substantially" better than what I have now which is a simle random length wire going around the 4 sides of my attic. Would sure appreciate any thoughts and opinions on his PAR unit.

b. How "omni" is it ?

e.g.,

If I have the wire axis running N-S, is most of the sensitivity then in the E-W direction (perpendicular to the wire) ?

If so, will I pick up "anything" in the N-S direction ?

Thanks,
Bob

4745. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 18:18:05 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <19d70$43a5a7f1$97d56a33$19178@ALLTEL.NET>
Source record: 66442

As I remember, we used 18 Kc and 13 Kc. We didn't have hertz in those days
:>)

We were able to copy Jim Creek when submerged in the Red Sea. Jim Creek had
13 miles of wire suspended between two mountains in what was probably the
worlds biggest capacitance hat.

All CW , because even a 150 cycle shift for rtty would have thrown the tank
circuit out of resonance. Now no one would be able to copy it...

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11qa89qo8d8mmbb@corp.supernews.com...
> Asimov wrote:
> >
> > Thanks for the info. I had read that submarines communicated in a
> > band of a few 10's of Hz because of the problems with water. As for
> > the polar molecules aligning themselves, this implies it takes some
> > time to achieve. Thus there is a resonnant point in this and if there
> > is resonnance then there might be anti-resonnance too. Might you know
> > where this natural molecular resonnance is? Might this be the standard
> > microwave oven frequency?
>
> Sorry, I don't know. If any of the readers of this newsgroup do, I'd
> really appreciate your enlightening us.
>
> Roy Lewallen, W7EL

4746. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 18:33:04 UTC
From: Toni <devegades@gmail.com>
Message-ID: <1134930784.403818.189120@g14g2000cwa.googlegroups.com>
Source record: 66443

Hi Tom,

K7ITM wrote:
> Looks to me like you are confusing "efficiency" with "directionality".
>
> That is, a small loop, or a short dipole, will have a low radiation
> resistance, and when it's small or short enough, the resistance in the
> conductors of the antenna becomes appreciable compared with the
> radiation resistance. That causes a loss of efficiency, because the
> signal energy ends up heating the wire resistance instead of being
> useful to the receiver.

No, I was not confussing it. When I talk about "efficiency" I amb
refering exactly to that, to radiated energy vs. energy lost heating
the wire.

> But a helix and a half-wave dipole will both be very nearly 100%
> efficient.

There are many classes of helix antennas, and all the "normal" helix
antennas you will find have dimensions comparable to a full wl if not
greater.

My doubting on pocketable GPSs antenna's efficiency is based merely on
their size. They are about 1/10 wl long. The only other antennas of
comparable size I know are loops, isotrons, fractals, CFA, EH and CB
sticks and, except for tuned loops, we know how they are treated
whenever they appear in this forum.

> The difference is that the helix is quite directional.

The ones used in GPS receivers are exactly the opposite. They should
ideally have a "half orange" radiation pattern, as they should be able
to follow a satellite from horizon to horizon all over your head.

> One way to get better reception would be to have a set of highly
> directional antennas (high gain antennas) that track a set of the
> visible satellites. Do you really want to do that?

No, of course not

> Or do you perhaps
> instead want an antenna that has a pattern that "sees" better in a cone
> with maybe a 25-40 degree elevation above the horizon, because the
> satellites directly overhead are not generally the problem? As is
> commonly the case, you should probably consider the whole system, not
> just one part of it. What, exactly, is the goal?

The goal is improving the efficiency, while not reducing (much) the directionality of a small antenna inside a plastic case that can not be modified.

Before you say this is impossible please think it twice:

Think of the small coupling loop used in a tuned loop. By itself it is a very bad antenna, but when an appropiate parasitic structure is added (the whole tuned loop) the "whole system" becomes a decent antenna. This is exactly what I'm asking about, about using my GPS antenna as a coupling to a more efficient structure of some kind.

Haven't you tried to place a walky close to a full size 2m dipole? When both antennas are paralel and very close to each other it certainly improves the signal strength.

> Cheers,
> Tom

Cheers and thaks for your answer

Toni

4747. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 18:59:48 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3eOdnYJDkYOCLDjeRVn-vA@bright.net>
Source record: 66444

Quite possible, however, 13 Kc and 18 Kc fall into the VLF range. The
original poster mentioned ELF. ELF is down in the "cycles", we didn't
have "kilos" at our ELF transmitters ;)

Scott
N0EDV

Fred W4JLE wrote:
> As I remember, we used 18 Kc and 13 Kc. We didn't have hertz in those days
> :>)
>
> We were able to copy Jim Creek when submerged in the Red Sea. Jim Creek had
> 13 miles of wire suspended between two mountains in what was probably the
> worlds biggest capacitance hat.
>
> All CW , because even a 150 cycle shift for rtty would have thrown the tank
> circuit out of resonance. Now no one would be able to copy it...
>
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:11qa89qo8d8mmbb@corp.supernews.com...
>
>>Asimov wrote:
>>
>>>Thanks for the info. I had read that submarines communicated in a
>>>band of a few 10's of Hz because of the problems with water. As for
>>>the polar molecules aligning themselves, this implies it takes some
>>>time to achieve. Thus there is a resonnant point in this and if there
>>>is resonnance then there might be anti-resonnance too. Might you know
>>>where this natural molecular resonnance is? Might this be the standard
>>>microwave oven frequency?
>>
>>Sorry, I don't know. If any of the readers of this newsgroup do, I'd
>>really appreciate your enlightening us.
>>
>>Roy Lewallen, W7EL
>
>
>

4748. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 19:28:40 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <d1ebq1ljidqpv70vaifcueqn64t5raaa46@4ax.com>
Source record: 66445

On 18 Dec 2005 08:41:47 -0800, nm5k@wt.net wrote:

>I do believe that any mechanical wave, such as a pressure or shock
>wave,
>travels at the speed of sound, no more and no less. To travel faster,
>it
>would have to be an electromagnetic wave.
>
>Also, the deaf person wouldn't hear the mechanical wave. Well,
>unless they had "some" hearing still available. If it was proven that
>a totally deaf person could hear it, that would pretty much nail it
>down as
>electromagnetic. If that came out to be true, then Coffmans theory
>about the auditory nerve picking it up would probably be true unless
>some other nerve was actually involved.
>MK

Doesn't the delta P of a fuel-air bomb travel at greater than the
speed of sound?

R

4749. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 20:02:53 UTC
From: richardharrison@webtv.net
Message-ID: <23343-43A5C06D-131@storefull-3252.bay.webtv.net>
Source record: 66446

Reg`s question was:
"What is the voltage between the bottom end and ground of a 1 metre high vertical antenna, above perfect ground, when the vertically-polarized field strength is 1 volt per metre, and the antenna height is shorter than 1/4-wavelength?"

A very clear and succinct question, I thought.

Roy Lewallen wrote:
"Relative to what?"

Reg left little to assume. I inferred that Reg had meant a ground-mounted 1-meter whip on a small base insulator. That would have left a short distance between the points of voltage determinarion.

The 1-meter whip directly over flat perfect earth must have a conjugate match to its receiver to extract all available power and get maximum voltage at the receiver input. This requires a low-loss coil to tune out the high capacitive reactannce of a too-short whip. It was specified as being less than 1/4-wavelength.

Standing wave antennas must be resonant to allow maximum current flow.

An unbalanced whip antenna must consist of two electrical parts just as a balanced antenna does. The ground or ground plane used with a whip substitutes for the missing half of a dipole. It provides a virtual image of the whip above it, to complete a dipole-like antenna. In this instance, the ground surface intervenes splitting the antenna into real and virtual parts. Radiation comes from the real part above ground. This part has only half the impedance of a totally real dipole.

We don`t need to have problems in determining the base voltage of a whip antenna. We can measure the antenna`s base impedance with a bridge, and its current with a thermoammeter with good accuracy, then we can calculate the voltage at the base of the whip.

The answer to Roy`s question is: The r-f voltage at the base of the antenna is determined with respect to ground at the base of the antenna,

Best regards, Richard Harrison, KB5WZI

4750. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 20:39:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qbi7i9pegj1db@corp.supernews.com>
Source record: 66447

Russ wrote:
>
> Doesn't the delta P of a fuel-air bomb travel at greater than the
> speed of sound?

No.

Roy Lewallen, W7EL

4751. Re: http://niggermania.com/

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 20:40:09 UTC
From: DrDeath <drdeath555usb@nospam.yahoo.com>
Message-ID: <11qbi9ao07pnuf7@corp.supernews.com>
Source record: 66448
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
news:do3icl$s0$1@news6.svr.pol.co.uk...
>
> "DrDeath" <drdeath555usb@nospam.yahoo.com> wrote in message
> news:11q97mfbt474cda@corp.supernews.com...
>> "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
>> news:dnuq09$61c$1@newsg3.svr.pol.co.uk...
>> >
>> >> >> Pray for me to win the lottery please :O)
>> >> >>
>> >> >> Regards,
>> >> >> Graham
>> >> >
>> >> > You have to watch the movie "Bruce Almighty". I did that once!
> 14,000
>> >> > winners of $17 each or something like that :-0
>> >> >
>> >>
>> >> I watched that movie 4 times, I didn't win any money.
>> >
>> > That's because Amos (eyy up Mr wilks ;o) wasn't praying for you...
>> >
>
>> Well that's not very Christian like of him.
>
> Im sure he would pray for you if you asked him to, but please don't ask
> him
> to pray for you until next week as I want to win it this week ;o)
>
> Regards,
> Graham
> --
> _·_· _··· ·_· ·_ _·· ·· _ _ _
>
> Radio is only a Hobby. Don't let it rule your life...
>
> 73's - Graham (www.open-channel.co.uk)
>
>

LOL, you got it.

4752. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 21:04:16 UTC
From: Fred W4JLE <fred@w4jle.com>
Message-ID: <f0ce7$43a5cee3$97d56a33$30964@ALLTEL.NET>
Source record: 66449

The denotation is supersonic, while the flame spread is subsonic.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11qbi7i9pegj1db@corp.supernews.com...
> Russ wrote:
> >
> > Doesn't the delta P of a fuel-air bomb travel at greater than the
> > speed of sound?
>
> No.
>
> Roy Lewallen, W7EL

4753. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 21:56:53 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11qbmn3pd8elg90@corp.supernews.com>
Source record: 66450

One could couple into a crystal oscillator NAA's signal and then listen 15 kHz to the side of the oscillator's frequency for great CW practice. BIG signal. 73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Fred W4JLE" <fred@w4jle.com> wrote in message news:19d70$43a5a7f1$97d56a33$19178@ALLTEL.NET...
> As I remember, we used 18 Kc and 13 Kc. We didn't have hertz in those days
> :>)
>
> We were able to copy Jim Creek when submerged in the Red Sea. Jim Creek had
> 13 miles of wire suspended between two mountains in what was probably the
> worlds biggest capacitance hat.
>
> All CW , because even a 150 cycle shift for rtty would have thrown the tank
> circuit out of resonance. Now no one would be able to copy it...
>
>

4754. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 22:06:04 UTC
From: richardharrison@webtv.net
Message-ID: <26465-43A5DD4C-731@storefull-3254.bay.webtv.net>
Source record: 66451

Someone mentioned peak values in a posting about computer results. Since Reg mentioned a discrepncy of 2 to 1, I was alerted to a possibility of an error source. A-C and R-F instruments are often calibrated in effective (rms) values. It is also customary to use rms values in calculations. RMS is 0,707 X the peak value. Conversely, the peak value is 1.414 X the rms value.

If you multiply the peak voltge times the peak current, their product is 2X the effective (average) power..

Could Reg`s discrepancy stem from the diference beween peak and effective values?

Best regards, Richard Harrison, KB5WZI

4755. Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 22:24:47 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <bfnbq15hqcovvo7hblecb8c4t2lmp2aod8@4ax.com>
Source record: 66452

I have an old HF Vertical that is about 20 feet tall when assembled.
The loading coil (?) seems to be open (VOM). I would like to dismantle
the assembly in hopes of salvaging as much as possible to do some
experiments with it.

It could also be a CB antenna, I don't recall where I got it...

The cover over the coil seems to be plastic, but much harder than PVC.
It also seems to be tight. The bottom of the assembly where the
connector is appears to be metal. The top of the coil assembly seems
to be sealed tightly. Unless some one has a more appealing idea I am
going to chuck it up in the lathe and start peeling the coil cover to
see what is inside.

The antenna top has a couple of wires bent in an egg-beater kind of
configuration.
Pictures at:
http://dixienc.us/Base%201.jpg
http://dixienc.us/Base%202.JPG
http://dixienc.us/Base%203.JPG
http://dixienc.us/Base%204.JPG
http://dixienc.us/Top%201.JPG
http://dixienc.us/Top%202.JPG

John Ferrell W8CCW
John Ferrell W8CCW

4756. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 22:27:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do4nnocaa1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66453

All I want to know is the voltage. All that is needed is a high
impedance voltmeter.

Theres nn need to do a conjugate match just to measure voltage.
Some folks have conjugate matches on their brains.

Reg.

4757. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-18 22:35:28 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <fL2dnWa49rq2eTjenZ2dnUVZ_v2dnZ2d@web-ster.com>
Source record: 66454

Scott wrote:
> Slight correction...our (U.S.) subs using ELF worked at about 50-80 Hz.
> I worked at one of the land-based transmitters for 5 years.
>
> Scott
>
>
> Tim Wescott wrote:
>
>> Asimov wrote:
>>
>>> Hi,
>>>
>>> I was thinking about why radio wave communications are not generally
>>> used underwater. Basically I'm asking what are the quantitative
>>> components of the underwater medium that makes it impractical except
>>> for perhaps very short ranges. Things like attenuation, impedance,
>>> etc... Does any one here know these details or have them handy?
>>>
>>> A*s*i*m*o*v
>>>
>>> ... Acme Corp: Unlimited credit for disadvantaged coyotes.
>>>
>> The conductivity of water causes great attenuation at all but very low
>> frequencies. Think "skin effect".
>>
>> That having been said, the US Navy (and probably all other folks with
>> subs) use extremely low frequency RF (30kHz IIRC) to communicate with
>> strategic nuclear subs.
>>
Boy I'm glad for that "IIRC" I put in there. Thanks.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4758. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 00:01:35 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1134949795.075840.292380@g43g2000cwa.googlegroups.com>
Source record: 66455

Doesn't appear to be any way to mount it on a mast/tower. Nor any signs of being mounted. I guess I would see if the nut on the UHF connector can be removed and the galvanized steel washer removed. That would let you peer into the thing and see what is there. May not even be a coil in there.

I am surprised you waited tis long to dismantle it!

Paul, KD7HB

4759. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 00:22:04 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <bc-dncbRDKlsYTjenZ2dnUVZ_sKdnZ2d@vnet-inc.com>
Source record: 66456

Can't tell you the make or model, but am just about positive it is an old CB antenna. My father-in-law had one just like it mounted on his roof for many years out on the farm.

Sam - K7SAM

4760. Re: Underwater

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 00:26:19 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <2oSdna_xMvM4YDjeRVn-oA@bright.net>
Source record: 66457

No problem! The Navy kept fairly quiet about their ELF communications. They shut down the ELF transmitters a little over a year ago. Wonder what they're using as a replacement? They were doing experiments with a satellite based green laser I had heard (while I was still working at Project ELF)...The ELF signal used MSK modulation (Minimum Shift Keying), which is similar to RTTY, only the shift between Mark and Space was 4 or 8 Hz, depending on rate of transmission. Took 5 minutes to send 3 alpha characters...most hams wouldn't have the patience to copy at that speed ;)

Scott

Tim Wescott wrote:

> Scott wrote:
>
>> Slight correction...our (U.S.) subs using ELF worked at about 50-80
>> Hz. I worked at one of the land-based transmitters for 5 years.
>>
>> Scott
>>
>>
>> Tim Wescott wrote:
>>
>>> Asimov wrote:
>>>
>>>> Hi,
>>>>
>>>> I was thinking about why radio wave communications are not generally
>>>> used underwater. Basically I'm asking what are the quantitative
>>>> components of the underwater medium that makes it impractical except
>>>> for perhaps very short ranges. Things like attenuation, impedance,
>>>> etc... Does any one here know these details or have them handy?
>>>>
>>>> A*s*i*m*o*v
>>>>
>>>> ... Acme Corp: Unlimited credit for disadvantaged coyotes.
>>>>
>>> The conductivity of water causes great attenuation at all but very
>>> low frequencies. Think "skin effect".
>>>
>>> That having been said, the US Navy (and probably all other folks with
>>> subs) use extremely low frequency RF (30kHz IIRC) to communicate with
>>> strategic nuclear subs.
>>>

> Boy I'm glad for that "IIRC" I put in there. Thanks.
>

4761. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 01:26:02 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <GcOdnXabutK3kTvenZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 66458

"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:bfnbq15hqcovvo7hblecb8c4t2lmp2aod8@4ax.com...
>I have an old HF Vertical that is about 20 feet tall when assembled.
> The loading coil (?) seems to be open (VOM). I would like to dismantle
> the assembly in hopes of salvaging as much as possible to do some
> experiments with it.
>
> It could also be a CB antenna, I don't recall where I got it...
>
> The cover over the coil seems to be plastic, but much harder than PVC.
> It also seems to be tight. The bottom of the assembly where the
> connector is appears to be metal. The top of the coil assembly seems
> to be sealed tightly. Unless some one has a more appealing idea I am
> going to chuck it up in the lathe and start peeling the coil cover to
> see what is inside.
>
> The antenna top has a couple of wires bent in an egg-beater kind of
> configuration.

Yes, this was a CB ground plane design. There should have been a bracket
that attached at bottom (metal coax connector area) and at top of loading
coil.

The application of heat with a heat gun (NOT a torch or open flame) - should
allow the plastic composite to slip off the coil.

Greg

4762. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 02:30:49 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1134959449.216481.202190@g47g2000cwa.googlegroups.com>
Source record: 66459

Cecil Moore wrote:
> Denton wrote:
> > I picked up a used one last sprng, set it up about 3 ft off the ground in
> > the back yard...and took it back down within a couple of weeks.
> > Signals were way down compared to my 450 ohm ladder line fed 80 meter
> > doublet on all bands.
>
> I had the same experience with a 1/4WL 40m vertical. Now I wish
> I had run some A/B transmitting tests as well as the A/B
> receiving tests

I thought you did that with N2EY . . ?

> which the vertical flunked mainly due to an
> extremely high noise level.

I did some of that sort of A/B testing between an elevated 1/4 wave 40M GP and an 80/75/40M 130 foot end-fed inverted L a number of years ago and the GP did not fare well at all. As it happened there wasn't much of an electrical noise problem in the neighborhood then so QRN one way or the other was not a term in this specific equation.

The vertcal leg of the inverted L was spaced about 20 feet from the tower and was base-fed by a remotely controlled L/C tuner out in the back yard, a USN surplus gun director selsyn motor cranked a big rotary inductor which allowed me to QSY from 40 to 80/ 75. But the process ate a minute or two to do which was a pain in the tush during the DX contests I was into. Instantaneous band changing in that game matters.

The apex of the L was around 60 feet AGL. The 70 foot "horizontal" run sloped down from the apex to about 35 feet AGL. The L worked quite well on both bands, I could snipe JAs at will with just an SB-200 on either band from here on the east coast when band condx were decent.

I decided that I had to put up some kind of 40M antenna so that I could quickly QSY from 80/75 to 40 by simply flipping an antenna selector switch which would get me away from the increasingly annoying "twist the selsyn 30 turns" routine when band swapping.

So I built a textbook-classic 40M 1/4 wave GP which had a self-supporting 35 foot +/- radiator. The base was at 35 feet AGL, there were four downward-sloping wire radials. The whole thing perched atop the roof of the abode. SWR over the entire band was essentally unity.

Turned out to be a complete waste of time, money and effort. For whatever reason or reasons there wasn't much difference in received

signal strength levels beteen the two antennas when I was listening to long-haul DX like JAs and VK/ZLs on my end. But when I called them more times than not they did not come back to me. I spent a couple intense very early morings A/B swapping between the L tuned for 40M and the GP QSOing the DX. In 90% of the cases they "heard me much better" when I was using the L than they did when I used the GP. I took the GP down and good riddance.

I'll leave the theoretical howcums of my experince to those of you who are deep into the physics of electromagnetics. For my part another 1/4 wave HF GP just ain't gonna happen here again elevated with radials or ground mounted with gazzilion radials.

. . . half-wave verticals being a whole different ballgame . .

> I'm thinking about putting the
> vertical back up as a 1/4WL 30m vertical fed at the base with
> an SGC-230 that I already have. Such an antenna should work
> pretty well on 40m-10m, at least for transmitting.

Go for it and post your results.

> --
> 73, Cecil http://www.qsl.net/w5dxp

w3rv

4763. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 02:31:52 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <pp6cq1lt2tgd6du7knsc6mv4el8g9iib3r@4ax.com>
Source record: 66460

On Sun, 18 Dec 2005 12:39:09 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Russ wrote:
>>
>> Doesn't the delta P of a fuel-air bomb travel at greater than the
>> speed of sound?
>
>No.
>
>Roy Lewallen, W7EL

The definition of dentonation includes the flame front moving at
supersonic speeds.

http://www.globalsecurity.org/military/systems/munitions/fae.htm

R

4764. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 03:03:39 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <NLKdnUV3gZOVvjvenZ2dnUVZ_sednZ2d@comcast.com>
Source record: 66461

Russ wrote:
> On 18 Dec 2005 08:41:47 -0800, nm5k@wt.net wrote:
>
>
>>I do believe that any mechanical wave, such as a pressure or shock
>>wave,
>>travels at the speed of sound, no more and no less. To travel faster,
>>it
>>would have to be an electromagnetic wave.
>>
>>Also, the deaf person wouldn't hear the mechanical wave. Well,
>>unless they had "some" hearing still available. If it was proven that
>>a totally deaf person could hear it, that would pretty much nail it
>>down as
>>electromagnetic. If that came out to be true, then Coffmans theory
>>about the auditory nerve picking it up would probably be true unless
>>some other nerve was actually involved.
>>MK
>
>
> Doesn't the delta P of a fuel-air bomb travel at greater than the
> speed of sound?
>
> R

Also, the pressure wave INSIDE a rifle barrel travels faster than the
speed of sound. It produces velocities of the projectiles at Mach 3 to
Mach 4. Hmmm...

The air pressure profile on an aircraft wing shows supersonic, transonic
and subsonic reponses. Hmmm..

It raises a physics question. How does the velocity of sound vary in a
compressible medium as the temperature, volume and pressure change?

4765. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 03:23:55 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <vp9cq1d34sthk1gqjvjplh3akcnh9pt2tn@4ax.com>
Source record: 66462

On 18 Dec 2005 16:01:35 -0800, "pdrahn@coinet.com" <pdrahn@coinet.com>
wrote:

>Doesn't appear to be any way to mount it on a mast/tower. Nor any signs
>of being mounted. I guess I would see if the nut on the UHF connector
>can be removed and the galvanized steel washer removed. That would let
>you peer into the thing and see what is there. May not even be a coil
>in there.
>
>I am surprised you waited tis long to dismantle it!
>
>Paul, KD7HB

It has a light but sturdy bracket that I have already removed. It is
pretty rusty but I believe i will clean up well.

I have a lot of projects around here that have been waiting a lot of
years. Some of them have found new homes.

John Ferrell W8CCW
John Ferrell W8CCW

4766. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 03:30:02 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <p1acq1li6sbe0958e5heai91k6f7kjnu2j@4ax.com>
Source record: 66463

On Sun, 18 Dec 2005 19:26:02 -0600, "gb" <onw9mapsgb@no.arrl.spam.net>
wrote:

>"John Ferrell" <johnferrell@sprintmail.com> wrote in message
>news:bfnbq15hqcovvo7hblecb8c4t2lmp2aod8@4ax.com...
>>I have an old HF Vertical that is about 20 feet tall when assembled.
>> The loading coil (?) seems to be open (VOM). I would like to dismantle
>> the assembly in hopes of salvaging as much as possible to do some
>> experiments with it.
>>
>> It could also be a CB antenna, I don't recall where I got it...
>>
>> The cover over the coil seems to be plastic, but much harder than PVC.
>> It also seems to be tight. The bottom of the assembly where the
>> connector is appears to be metal. The top of the coil assembly seems
>> to be sealed tightly. Unless some one has a more appealing idea I am
>> going to chuck it up in the lathe and start peeling the coil cover to
>> see what is inside.
>>
>> The antenna top has a couple of wires bent in an egg-beater kind of
>> configuration.
>
>Yes, this was a CB ground plane design. There should have been a bracket
>that attached at bottom (metal coax connector area) and at top of loading
>coil.
>
>The application of heat with a heat gun (NOT a torch or open flame) - should
>allow the plastic composite to slip off the coil.
>
>Greg
>
I am glad I asked! The heat gun sounds like a better way than the
lathe. I will try that first.

John Ferrell, W8CCW

John Ferrell W8CCW

4767. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 05:55:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qciqd7vlfm4ec@corp.supernews.com>
Source record: 66464

Russ wrote:
> On Sun, 18 Dec 2005 12:39:09 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Russ wrote:
>>
>>>Doesn't the delta P of a fuel-air bomb travel at greater than the
>>>speed of sound?
>>
>>No.
>>
>>Roy Lewallen, W7EL
>
>
> The definition of dentonation includes the flame front moving at
> supersonic speeds.
>
> http://www.globalsecurity.org/military/systems/munitions/fae.htm

Yes, I can understand the flame front moving faster than sound, if it's not a pressure wave. I don't know the mechanism, but presume it's propagated by radiant heat. That is, a flame occurs, and its heat radiates and superheats nearby material, causing it to flame. That would be propagation by electromagnetic wave, i.e., infrared "light". The radiation would travel at the speed of light, with the apparent speed of the front being dictated by how fast the material is heated and ignited by the radiated heat. Propagation by this mechanism and at this speed would end as soon as the flame front reached the outside of the vapor cloud, beyond which the resulting pressure wave would travel at the speed of sound.

I'm not an expert at this, but I'm quite sure that the only way you can get a mechanical wave to travel faster than sound is if the behavior of the air becomes nonlinear at some compression level. That could conceivably happen as a result of an explosion, but I don't think so. If anyone has any references describing such nonlinear behavior, I'd love to learn more about it.

Roy Lewallen, W7EL

4768. Need some help designing a receiving antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 06:04:41 UTC
From: scromwell2@yahoo.com
Message-ID: <1134972281.176612.287710@g47g2000cwa.googlegroups.com>
Source record: 66465

Hi group,

I've been researching this for some hours but can't seem to come up with some basic info. (This will be my first attempt at DIY antenna so I still have a lot to learn.)

What I'm trying to do is build an antenna for my Icom R5 handheld receiver. It uses an SMA connector. What I'm not clear on is what the internal circuitry of a receiving antenna for a handheld looks like. I'd like to start by making a 900 MHz suitable antenna as there is a lot of 900 MHz Ham activity in my area.

I'll be using my trusty mini-lathe and a 1/4-36 UNS thread tap to make the SMA connector. Q: Does anyone know what the diameter of the male pin is on the SMA connector? I have the antenna that came with my R5 but can't get into the socket to measure it.

Sure, I could buy a Pryme for $25, but why do that when I can spend $50 and build it myself? ;-)

4769. Re: Rohn-Loc Climbing Safety System

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 06:27:23 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <22kcq19iu1456ikq077r00s734215f0vab@4ax.com>
Source record: 66466

On 16 Dec 2005 22:01:40 -0800, ka9s@arrl.net wrotF:

>A friend is giving me a Rohn-Loc tower climbing safety cable system.
>It's a 3/8-inch cable that is suspended from the top of the tower to
>the bottom. It's kept about 6 inches from the tower face and held under
>tension. The climber has a "Safety clamp" attached from his climbing
>belt to the cable. The generic name for this is a cable grip.
>
>I need the "Safety clamp" (cable grip) to complete the system. Does
>anyone know where to get one of these? I just need the grip, not a
>complete belt. If you have one of these set up on your tower I'd like
>to know if you like it.
>
>- Jeff - KA9S

This might give you a lead.

<http://www.millerfallprotection.com/miller/transcendor/transcendor.html>
<http://www.millerfallprotection.com/miller/pdf_folder/Transcendor.pdf>

4770. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 13:38:08 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43a6b708_3@newsfeed.slurp.net>
Source record: 66467

"Robert11" wrote
> is it better to just leave the now "floating" antenna alone,
> or is it better to ground one end of it ?

Most MW broadcast stations use series-fed, insulated towers that usually are (by far) the highest structures in the area. These stations operate successfully in lightning storms using a combination of means. First is an arc gap connected across the tower feedpoint to a very low resistance earth ground (120 1/4-wave, buried radials). The gap is set to flash over at some margin above the peak voltage present during normal operation. They also use a "static drain choke" to earth ground, which is a high Z at the MW frequency, but doesn't let high static potentials develop on the tower. The last part of the protection system is supplied by transmitter circuitry that senses instantaneous phase changes in transmission line current, and kills r-f output for some milliseconds so as not to sustain any arc that occurs in the antenna system.

Maybe some of these techniques could be useful in amateur radio installations.

RF

4771. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 14:28:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Gszpf.43581$Zv5.31631@newssvr25.news.prodigy.net>
Source record: 66468

Roy Lewallen wrote:
> I'm not an expert at this, but I'm quite sure that the only way you can
> get a mechanical wave to travel faster than sound is if the behavior of
> the air becomes nonlinear at some compression level.

Carrier velocity is linear and must be taken into account. Relative
to a measurement point at the center of the earth, sound waves
traveling East in the surface atmosphere are moving faster than
Mach 2. Do the carriers move during an explosion?
--
73, Cecil http://www.qsl.net/w5dxp

4772. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 15:04:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do6i5t$4j8$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66469

> "Robert11" wrote
> > is it better to just leave the now "floating" antenna alone,
> > or is it better to ground one end of it ?
> ______________
>
In anticipation of a thunder storm just leave it floating. Not that it will prevent a direct lightning strike but it MIGHT prevent damage to equipment and, more important, to yourself.

But it is advisable not to attempt to disconnect it using bare fingers during the progress of a thunder storm. I am a little superstitious so I use the XYL's rubber kitchen gloves.

There's only one thing you can be absolutely certain of - lightning exactly obeys the Mathematical Laws of Probability.

See the works of Sir Ronald Arthur Fisher, the greatest statistician of all time. Beautifully explained in plain English. He dabbled mainly in Genetics, Agriculture, the Weather, and the mathematics thereof. But I'm not aware of anything specifically he had to say about the statistics of lightning strikes. You will have to work things out for yourself. In all probability nothing seriously will happen to YOU. So don't worry about it.

Just DON'T fly kites using 1/2-wavelength metal wires during thunder storms. Not even on the 10m band. Or shelter from the rain under solitary trees. It's asking for trouble but you probably won't get any.

As for me, I'm 80 years of age, and I'm still alive. I've never won the national lottery. But perhaps that can be explained by the fact that I've never entered it.

I hope the foregoing has helped to set your mind at rest.

Reg, G4FGQ
==========

4773. Antenna Input Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 17:02:24 UTC
From: bigschlong@gmail.com
Message-ID: <1135011743.774673.140070@g49g2000cwa.googlegroups.com>
Source record: 66470

Merry Christmas and a Happy New Year!

I am curious about the setup of measuring the input impedance of an antenna. Is there any standard setup for this? What equipments are use? Any pictures of a an example setup configuration?

I was talking to friend and I told him that you can probably use a vector analyzer to measure the input impedance at a certain frequency sweep. But I came to thinking that objects / persons around the antenna during measurement would affect its impedance due to stray capacitance. This is strictly referring to the vector analyzer fixed in a school lab setting.

Any additional info would be greatly appreciated.

Thanks!

4774. Re: Antenna Input Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 17:27:42 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <i4Cpf.34330$7h7.3670@newssvr21.news.prodigy.com>
Source record: 66471

bigschlong@gmail.com wrote:
> I am curious about the setup of measuring the input impedance of an
> antenna. Is there any standard setup for this? What equipments are use?
> Any pictures of a an example setup configuration?

It depends upon the required degree of accuracy. If you have
a perfectly characterized 1/2WL of feedline, you can measure
the antenna feedpoint impedance remotely within some degree
of accuracy. For what purpose is the measurement being made?
--
73, Cecil http://www.qsl.net/w5dxp

4775. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 17:43:06 UTC
From: richardharrison@webtv.net
Message-ID: <12711-43A6F12A-56@storefull-3253.bay.webtv.net>
Source record: 66473

Reg, G4FGQ wrote:
"There`s no need to do a conjugate match just to measure voltage."

True. But, it`s best to measure current and calculate voltage because voltmeter leads are susceptible to induced voltages.

One benefit of the conjugate match is elimination of a reactive obstacle to current, but because source and load resistances are equal, exactly one half of the voltage induced in the antenna appears across the receiver. An infinite ipedance does not load a source at all.

Reg`s question of how much voltage is induced in 1 m of wire in a field of 1 V/m is answered clearly by Terman in publications which date back at least to 1932, the earliest copyright date I saw on "Radio Engineering". So, many competent and critical reviewers have pored over Terman`s works that it`s almost certain that any errors have been found and corrected long ago. Everybody makes mistakes, but now Terman is as close to infallible on the subject of radio as any author I know. Read page 2 of Terman`s "Electronnic and Radio Engineering" (1955 edition) for complete details. The same information appears in some other Terman authored and edited writings (almost word for word).

Best regards, Richard Harrison, KB5WZI

4776. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 17:48:31 UTC
From: nm5k@wt.net
Message-ID: <1135014510.919796.309130@g49g2000cwa.googlegroups.com>
Source record: 66472

I'll leave the theoretical howcums of my experince to those of you who
are deep into the physics of electromagnetics. For my part another 1/4
wave HF GP just ain't gonna happen here again elevated with radials or
ground mounted with gazzilion radials. .....

Kinda weird. The one I used here worked great. And almost
identical specs. Mine was full size at 36 ft with 4 sloping radials.
The only thing I can think of to explain it , would be ground quality.
Evidentally, my ground quality must be pretty good compared to
many areas of the country. I know it's a good bit better than Cecils,
judging by the conductivity maps. If your's didn't work up to par,
I'd almost have to blame it on the radial system. I think you probably
needed a few more to equal what I had here. In fact, going by the
numbers, for a 1/4 wave at a 1/4 wave high, you really need 8 radials
to equal 120 on the ground. I judged my 4 radials as being equal to
about 60 radials for a ground mount. But...My conductivity rating in
this area is bordering on the "30" range being I'm not too far from the

coast. I know for sure Cecil would need more radials than mine for
the same performance, as his was half the height and his ground
rating is lower. .
My hunch is if you had 8 radials on the GP, it probably would have
done better.
My GP totally smoked the ground mount I had that used 32 radials.
No comparison at all. I've never tried 1/2 waves on the low bands,
except for extended inv-L's...I have run them 20m up though.
Work well there.
MK

4777. Re: Antenna Input Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 18:09:22 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1135015762.848150.60880@g49g2000cwa.googlegroups.com>
Source record: 66474

Though what you say about measuring through a feedline is true, is there some reason you limited it to 1/2 wavelength? I regularly make measurements through an arbitrary length of transmission line--though one key is that the line not have too much loss. And of course, in making antenna measurements, it's important to realize that the feedline you use for measurement (just as the one you use to feed the antenna) may couple to the antenna and become part of the antenna. There may be some advantage in using the same line for both measurement and using the antenna as an antenna.

For the original poster: yes, an antenna system consists of what you thought was the antenna, plus its environment. People around the antenna, or big vector network analyzers around the antenna, or feedlines, or masts--any of that may affect the measured impedance. On the other hand, if you measure the antenna in the environment in which it will be used, assuming you make accurate measurements, you should be fine. You can even experiment to see just HOW MUCH effect a person near the antenna will have. Modern analyzers make this very easy and quick. Ah, for the "good old days" of hand-balanced bridges, measuring one frequency at a time! But what people actually use to make the measurement depends on the equipment they have available. Do you have specific equipment in mind?

Cheers,
Tom

4778. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 18:43:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qdvpv9kf3rs80@corp.supernews.com>
Source record: 66475

Reg Edwards wrote:
> . . .
> See the works of Sir Ronald Arthur Fisher, the greatest statistician
> of all time. Beautifully explained in plain English. He dabbled mainly
> in Genetics, Agriculture, the Weather, and the mathematics thereof.
> But I'm not aware of anything specifically he had to say about the
> statistics of lightning strikes. You will have to work things out for
> yourself. In all probability nothing seriously will happen to YOU. So
> don't worry about it.
> . . .
> As for me, I'm 80 years of age, and I'm still alive. I've never won
> the national lottery. But perhaps that can be explained by the fact
> that I've never entered it.
>
> I hope the foregoing has helped to set your mind at rest.

I'd be willing to wager that there are places in Florida which have more lightning strikes in a single summer than have occurred at your QTH (or mine) in the past 80 years.

Roy Lewallen, W7EL

4779. Re: Antenna Input Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 18:50:40 UTC
From: Ron J <bigschlong@gmail.com>
Message-ID: <1135018240.402610.74750@g43g2000cwa.googlegroups.com>
Source record: 66326

HI Cecil,

> For what purpose is the measurement being made?

I think he was trying to make an FM antenna for his transmitter. We were talking about how he can design a matching network to match his antenna to his RF output. I told him that he should pick the frequency with the lowest reflection coefficient and design his matching network base on the antenna input impedance at that frequency.

Does this sound valid?

4780. Dipole antenna lobes question (wifi base in this example)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 18:54:58 UTC
From: dhawo <dhawo1@earthlink.net>
Message-ID: <6mDpf.7042$3Z.1923@newsread1.news.atl.earthlink.net>
Source record: 66327

This question is not just related to wifi of course.

My understanding is if the dipoles are opposite of each other
(example 1: -----O-----) then the lobe is an equal donut
shape from the center. I would get equal focus upstairs
downstairs ends of the house if wifi base is placed in the center.
(a big vertical donut sitting in center of the house with edges
of donut touching roof, 1st floor, end to end in the house [O] <-- house)
(nulled in the front and back of the house.

What does the lobe look like if the dipoles are vertically
opposite from each other? (Example 2: |_o_|)
Is the majority of the lobe pointing to the sky and less to
the ground? Wouldnt that take away strength from the ends
of the house? Or am I totally off base? This question comes
from a recommendation that the antennas should be vertical as
in example 2. Maybe that is the idea is to lower interference
to neighbors. Thanks for all your input... Dean

4781. Re: Antenna Input Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 19:27:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <pQDpf.324$oW.294@newssvr11.news.prodigy.com>
Source record: 66328

K7ITM wrote:
> Though what you say about measuring through a feedline is true, is
> there some reason you limited it to 1/2 wavelength?

I was thinking about my 80m dipole at the time.
--
73, Cecil http://www.qsl.net/w5dxp

4782. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 19:42:46 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <173eq1li33s526o0f2j5s77t82f7sp2vhs@4ax.com>
Source record: 66329

>>Yes, this was a CB ground plane design. There should have been a bracket
>>that attached at bottom (metal coax connector area) and at top of loading
>>coil.
>>
>>The application of heat with a heat gun (NOT a torch or open flame) - should
>>allow the plastic composite to slip off the coil.
>>
>>Greg
>>
>I am glad I asked! The heat gun sounds like a better way than the
>lathe. I will try that first.
>
>John Ferrell, W8CCW
>
>John Ferrell W8CCW
It came apart pretty easy. If you would like to see what was inside
click on http://dixienc.us/AntennaProject.htm
I am impressed with the mechanical structure and will try to imitate
it going back together.
John Ferrell W8CCW

4783. antenna tuner range calculators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 19:46:59 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <65Epf.1835$RZ6.1473@bignews7.bellsouth.net>
Source record: 66330

Anyone know of any calculators which enable a user to get an approximation
of the Z range of an antenna tuner by feeding in the variable values ?

4784. Re: antenna tuner range calculators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 20:05:41 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <poEpf.40169$tV6.20506@newssvr27.news.prodigy.net>
Source record: 66331

RB wrote:
> Anyone know of any calculators which enable a user to get an approximation
> of the Z range of an antenna tuner by feeding in the variable values ?

If you have MicroSmith, make the load equal to 50 ohms. Set up a
series C, a parallel L, and a series C that agrees with the values
in your antenna tuner and watch the Smith Chart as the values of C
and L are changed. It's pretty interesting to see.
--
73, Cecil http://www.qsl.net/w5dxp

4785. Re: Dipole antenna lobes question (wifi base in this example)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 20:56:13 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <N7Fpf.4099$rq3.322@newssvr19.news.prodigy.com>
Source record: 66332

Dean,
Since anything around an antenna affects/distorts the radiation pattern to some extent, and since a dipole's radiation pattern is sort of directional (depending on a lot of things), the usual vertical antenna, being 'omnidirectional' would mean that the distortion probably won't mean a 'null' somewhere in the house. (Wonder if I could make that sentence a little bit longer??) That 'donut' radiation pattern is the 'ideal', not what actually happens in most cases. (There's not really a hole in the middle either.) Which would be 'beter' in your situation? Beats me. You might try it ans see, but have the vertical antenna just in case...
'Doc

4786. Re: antenna tuner range calculators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 20:58:46 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <347eq1pf4321finmujo0cmkjuad4loof5o@4ax.com>
Source record: 66333

On Mon, 19 Dec 2005 13:46:59 -0600, "RB" <rbig@bellsouth.nospam.net>
wrote:

>Anyone know of any calculators which enable a user to get an approximation
>of the Z range of an antenna tuner by feeding in the variable values ?
>

You might have a look at RevLoad written by Jim Tonne, WB6BLD:

http://www.tonnesoftware.com/ (Main Site)

http://www.tonnesoftware.com/revload.html (RevLoad download)

RevLoad takes the settings of the tuner components
the system (tuner) impedance (usually 50 ohms) and
the operating frequency to calculate the load impedance
being matched. It covers all tuner configurations,
T-net, pi-net, L-net. And, best of all, it's FREE.

Jim, K7JEB

4787. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 21:04:02 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <do7782$1cbk$1@f04n12.cac.psu.edu>
Source record: 66334

Toni wrote in part:
> Hi Tom,
>
> K7ITM wrote:

>
>>The difference is that the helix is quite directional.
>
>
> The ones used in GPS receivers are exactly the opposite. They should
> ideally have a "half orange" radiation pattern, as they should be able
> to follow a satellite from horizon to horizon all over your head.

Isn't that quite directional?

And are you talking about helical as in a helical antenna, or are you
talking about rubber ducks?

> Before you say this is impossible please think it twice:
>
> Think of the small coupling loop used in a tuned loop. By itself it is
> a very bad antenna, but when an appropiate parasitic structure is added
> (the whole tuned loop) the "whole system" becomes a decent antenna.
> This is exactly what I'm asking about, about using my GPS antenna as a
> coupling to a more efficient structure of some kind.

It sounds as if you are proposing something that will be quite
beneficial to the radio world if you succeed.

- 73 de Mike KB3EIA -

4788. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 21:38:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eq9eq1drqubpqq3p3j7if71l7u988ml462@4ax.com>
Source record: 66335

On Thu, 15 Dec 2005 09:02:17 +0000, Paul Johnson <baloo@ursine.ca>
wrote:

>> (If I was poor enough, my idiot government would buy this stuff for me,
>> but instead, I believe I will be taxed to buy it for someone else.)
>
>Show me where I can sign up for a free TV from the government...

Newsflash (it took less than a week to come true):
"Under a deal negotiated by Republicans in the House and Senate,
up to $1.5 billion would be available to help some people buy
converter boxes to keep their old, analog-signal televisions
working when the transition [to digital TV] is finished."

Welcome to the GOP welfare state.

4789. Still looking for a Tripp Lite PR-25 (or similar) DC power supply schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 21:39:55 UTC
From: Paul P <p.pinyotREMOVE@REMOVEworldnet.attREMOVE.netREMOVE>
Message-ID: <LMFpf.315730$zb5.47297@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66336
Cross-posted to:
alt.binaries.schematics.electronic,rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Still looking for a Tripp Lite PR-25 (or similar model) DC power supply
schematic to repair the club's repeater power supply. If any one has one
I'd appreciate a copy, email or otherwise.

I called Tripp Lite just now. According to Technical Support their
PRESIDENT has
recently mandated that they would NOT send any more schematics out.
However, I could trade the supply in for a new one at about 85 bucks.

Thanks and merry Christmas,
Paul.

paul at ppinyot dot com

>>> Looking for a Tripp Lite PR-25 dc supply schematic
>>
>> Have you called 'em at:
>> (773) 869-1111
>> I blew up one of my many Tripp Lite sine wave inverters and they sent me
>> the schematic, free!...
>>
>
>

4790. MFJ ANTENNA QUESTION

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 21:57:10 UTC
From: w4sef@bellsouth.net
Message-ID: <43a72aae.7737125@newsgroups.bellsouth.net>
Source record: 66337

Hello all,

I wonder if anyone has tried the MFJ collinear dipole that they have in their new catalog. It is two half waves with a quarter wave length of 450 ohm ladder line shorted at the bottom hanging down with an SO 239 connector for the 50 ohn feedline connection. I dont see why one could not build this antenna themselves. The question is, WHERE does the 50 ohm point go on the ladder line? At the bottom? Mid point? Or does it matter where it goes? I have plenty of room to put on up and wondered how well they work.

73s and thanks,

Steve W4SEF

4791. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 21:59:58 UTC
From: LarryLurker <Larry@Lurker.net>
Message-ID: <sraeq1p3k080fu052bofb5kv85plcc7hnb@4ax.com>
Source record: 66338

What you have there is a Super Magnum CB antenna, vintage mid-60's. The Magnum model had 4 foot radials and no top hat. The Super Magnum has 9 foot radials with the top hat. By rewinding, or retapping the coil, you can make a great 10 meter vertical. .... or it may be simpler to change the length of the vertical section. I did the coil thing in the mid-80's and used it to work all states and 130 countries.

LL

On Sun, 18 Dec 2005 22:24:47 GMT, John Ferrell <johnferrell@sprintmail.com> wrote:

>I have an old HF Vertical that is about 20 feet tall when assembled.
>The loading coil (?) seems to be open (VOM). I would like to dismantle
>the assembly in hopes of salvaging as much as possible to do some
>experiments with it.
>
>It could also be a CB antenna, I don't recall where I got it...
>
>The cover over the coil seems to be plastic, but much harder than PVC.
>It also seems to be tight. The bottom of the assembly where the
>connector is appears to be metal. The top of the coil assembly seems
>to be sealed tightly. Unless some one has a more appealing idea I am
>going to chuck it up in the lathe and start peeling the coil cover to
>see what is inside.
>
>The antenna top has a couple of wires bent in an egg-beater kind of
>configuration.
>Pictures at:
>http://dixienc.us/Base%201.jpg
>http://dixienc.us/Base%202.JPG
>http://dixienc.us/Base%203.JPG
>http://dixienc.us/Base%204.JPG
>http://dixienc.us/Top%201.JPG
>http://dixienc.us/Top%202.JPG
>
>
>John Ferrell W8CCW
>John Ferrell W8CCW

4792. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 22:22:45 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43a731f9_2@newsfeed.slurp.net>
Source record: 66339

"Reg Edwards" wrote
> In anticipation of a thunder storm just leave it floating. Not that it
> will prevent a direct lightning strike but it MIGHT prevent damage to
> equipment and, more important, to yourself.
... etc etc removed by major clippage
>I hope the foregoing has helped to set your mind at rest.

Possibly you thought this relevant to the original post. But then why not thread it so, rather than to mine?

RF

4793. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 22:42:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do7d0c$pb9$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66340

Terman may or may not be perfectly correct when he states the voltage INDUCED in a 1 metre high vertical antenna with a field strength of 1 volt per metre.

But Terman is ambiguous. He tells only half of the story.

He FAILS to state between WHICH which pair of points the voltage is induced.

For the UMPTEEN'th time - what I need to know is the voltage which can actually be MEASURED between the bottom end of the antenna and ground ?

I can then draw a circuit and continue with practical calculations.

PLEASE, can no-one put me out of my misery ?

Reg, G4FGQ.

4794. Z matching of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 22:43:54 UTC
From: "Chuck S." <chuckwa3iac@verizon.net>
Message-ID: <KIGpf.10022$aU4.4108@trnddc06>
Source record: 66341

With respects to antenna matching, i.e.: 50 to 450 Ohms, which is better to use, an autotransformer or a transformer with an isolated primary and secondary? I'm looking for the pro's and con's of each.

--
Yours truly,
Chuck

WA3IAC
FN20la

http://www.qsl.net/wa3iac/

4795. Re: antenna tuner range calculators

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 22:53:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do7dlu$r06$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66342

Download and run in a few seconds programs T_TUNER and L_TUNER, from
website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4796. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 23:17:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do7f1q$o40$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66343

"Roy Lewallen" wrote
> I'd be willing to wager that there are places in Florida which have
more
> lightning strikes in a single summer than have occurred at your QTH
(or
> mine) in the past 80 years.

==========
Roy, your's is a safe bet.

Nevertheless, statistically speaking, the good people of Florida
should be more scared of dying from gunshot wounds. But it doesn't
seem to worry them very much.

Reg.

4797. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 23:17:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qeft0bpn1590@corp.supernews.com>
Source record: 66344

Toni wrote:
>
> When talking about loop antennas people talk about "capture area".
> Whatever that is, this seems to be what makes a ferrite bar antenna
> more sensitive than the equivalent simple coil tuned to the same freq.
> I know that by using a ferrite bar you are narrowing the pattern, but
> I'd think that the main gain does not come from the pattern narrowing
> but from "capture area increase" (again, please bear with my ignorance,
> these are only my thoughts on what I've read on the Web)

Capture area is exactly the same thing as gain, but expressed in different units. There are two ways of increasing the gain or capture area of an antenna: increase its efficiency, or narrow its pattern. The former increases the gain or capture area in all directions; the latter increases it in some directions at the expense of others. A ferrite loop antenna simply has better efficiency than a standard loop of the same physical size. Hence it has better gain or capture area.

>>>I know one can not have more than 0 dB with full omni, I just guess the
>>>minimalistic antenna in pocketable gps is way below 0 dB and could
>>>maybe be improved a little.
>>

[RL]
>>0 dB relative to what?
>
>
> An isotropic antenna; AFAIK a perfect isotropic antenna would have 0 dB
> gain

dB is a ratio, in this case of gains, or field strengths with a given power input, or capture areas. (All three ratios are the same for a given pair of antennas.) So the reference always must be specified, otherwise a statement of dB gain is meaningless. When using the gain of a free space isotropic antenna as a reference, gain is expressed in dBi, that is, dB relative to isotropic. The gain of a perfectly omnidirectional antenna over an infinite ground plane is 3 dBi, since the same power is concentrated in half the volume as it is for an isotropic free-space radiator.

>
>
[RL]
>>Once you get the desired coverage angle, the only way to improve the
>>reception of the GPS is to improve the receiver signal/noise ratio. The
>>only way you can do that from outside the GPS is to use an external

>>antenna with a preamp having a lower noise figure than the GPS's receiver.
>
>
> Please let me doubt that. For a given coverage angle you can't make
> better than a perfect antenna, but you can certainly make worst (think
> of a T2FD).

If by "perfect" you mean "perfectly efficient", I agree.

>
>>I'm not sure what the "high loss antenna" is. If you mean the GPS
>>antenna, it's not high loss at all, but is likely very efficient. If
>>it's a patch antenna, you can't model it at all with EZNEC. But even if
>>it's a quadrifilar helix, you can't model it with one segment.
>
>
> I dont know how efficient they are, but I do know that normal
> commercial patch antennas are noticeably less efficient than helical
> ones, and then, for the helicals, I doubt that something aprox 1/10 wl
> is anything close to efficient. If this was to be true I'd love to
> build an equivalent 6.5 ft. helix to work on 20m!

I wasn't aware of that. So if typical GPS patch antennas are indeed significantly inefficient, the reception could be improved without narrowing the pattern. But I don't know if there would be any practical way to do this externally.

The civilian GPS frequencies are about 1228 and 1575 MHz. The wavelength in air of the lower frequency is about 9.6 inches. Patch antennas can be made with a side equal to about 0.25 wavelength divided by the square root of the dielectric constant of the material within the patch. So for Teflon dielectric (er ~ 2.3), a patch would have sides of 1.6 inches. If something like alumina is used (very low loss, dielectric constant ~ 10), the side would be 0.76 inches. Some patches have sides twice this long, but alumina would permit even one of those to be used in a typical GPS receiver. The two versions of patches have different patterns, and I don't know right off which would be preferable for GPS use. At any rate, I believe that patches of those dimensions are quite efficient, assuming the dielectic has low loss. Both Teflon and alumina, as well as others, meet this criterion. Maybe someone with a greater knowledge of patch antennas, and GPS antennas in particular, could provide some additional information.

Roy Lewallen, W7EL

4798. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 23:28:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qeggdrdllf93d@corp.supernews.com>
Source record: 66345

Toni wrote:
> . . .
> There are many classes of helix antennas, and all the "normal" helix
> antennas you will find have dimensions comparable to a full wl if not
> greater.

Quadrifilar helices typically have four twisted half wave elements. The length for 1228 MHz would be somewhat less than 4.8 inches. Twisting would make the assembly less high that that, and fattening the elements or plating them on a dielectric substrate would further shorten them. This is consistent with the antenna of an older GPS unit I had.

> My doubting on pocketable GPSs antenna's efficiency is based merely on
> their size. They are about 1/10 wl long. The only other antennas of
> comparable size I know are loops, isotrons, fractals, CFA, EH and CB
> sticks and, except for tuned loops, we know how they are treated
> whenever they appear in this forum.

It's possible to make an electrically small antenna that's quite efficient. Typical examples are the small transmitting loops made by AEA and MFJ, or the shortened, top loaded verticals described by Jerry Sevick, W2FMI, in a series of articles in the '70s. What you can't make is a short, efficient, broadband antenna. But GPS antennas don't need to be broadband. And for that matter, they don't have to be that electrically small.
>
>
>>The difference is that the helix is quite directional.
>
>
> The ones used in GPS receivers are exactly the opposite. They should
> ideally have a "half orange" radiation pattern, as they should be able
> to follow a satellite from horizon to horizon all over your head.

This describes the approximate pattern of both quadrifilar helix and patch antennas, which is why those are the types which are commonly used.

> . . .

Roy Lewallen, W7EL

4799. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 23:30:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qeglddhokhvbf@corp.supernews.com>
Source record: 66346

Reg Edwards wrote:
> Terman may or may not be perfectly correct when he states the voltage
> INDUCED in a 1 metre high vertical antenna with a field strength of 1
> volt per metre.
>
> But Terman is ambiguous. He tells only half of the story.
>
> He FAILS to state between WHICH which pair of points the voltage is
> induced.
>
> For the UMPTEEN'th time - what I need to know is the voltage which
> can actually be MEASURED between the bottom end of the antenna and
> ground ?
>
> I can then draw a circuit and continue with practical calculations.
>
> PLEASE, can no-one put me out of my misery ?

Hm. Have my postings gone unread? Or just unbelieved?

Roy Lewallen, W7EL

4800. Re: Z matching of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 23:33:33 UTC
From: jgboyles@aol.com
Message-ID: <1135035213.671636.52820@g14g2000cwa.googlegroups.com>
Source record: 66347

Chuck S. wrote:
> With respects to antenna matching, i.e.: 50 to 450 Ohms, which is better to use, an autotransformer or a transformer with an isolated primary and secondary? I'm looking for the pro's and con's of each.
>
>
> --
> Yours truly,
> Chuck
>
> WA3IAC
> FN20la
>
> http://www.qsl.net/wa3iac/

Hi Chuck, If I read your question correctly, you want to match a 450 ohm antenna, with no reactive component, to a 50 ohm transmission line. In this case a 9:1 transformer would do the trick.
If however you are trying to match an antenna fed with a length of 450 ohm line down to the transmitter, where it will need to be transformed to 50 ohms, an "L" network or some other impedance matching network will be required. The impedance seen at the end of the 450 ohm line, in this instance, will rarely be 450 ohms resistive.
Gary N4AST

4801. Re: Z matching of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-19 23:57:31 UTC
From: "Chuck S." <chuckwa3iac@verizon.net>
Message-ID: <LNHpf.14179$l25.10762@trnddc03>
Source record: 66348

Ok Gary, I would like to match a 50 Ohm radio to a 450 Ohm antenna input. I know an "L" network would work, but what I was looking for is if an auto transformer would be as good or use a transformer with a isolated primary winding.

<jgboyles@aol.com> wrote in message
news:1135035213.671636.52820@g14g2000cwa.googlegroups.com...
> Chuck S. wrote:
>> With respects to antenna matching, i.e.: 50 to 450 Ohms, which is better
>> to use, an autotransformer or a transformer with an isolated primary and
>> secondary? I'm looking for the pro's and con's of each.
>>
>>
>> --
>> Yours truly,
>> Chuck
>>
>> WA3IAC
>> FN20la
>>
>> http://www.qsl.net/wa3iac/
>
> Hi Chuck, If I read your question correctly, you want to match a 450
> ohm antenna, with no reactive component, to a 50 ohm transmission line.
> In this case a 9:1 transformer would do the trick.
> If however you are trying to match an antenna fed with a length of
> 450 ohm line down to the transmitter, where it will need to be
> transformed to 50 ohms, an "L" network or some other impedance matching
> network will be required. The impedance seen at the end of the 450 ohm
> line, in this instance, will rarely be 450 ohms resistive.
> Gary N4AST
>

4802. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 00:02:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qeiftgbhj3439@corp.supernews.com>
Source record: 66349

This has been an interesting discussion, and prompted me to do a tiny bit more research.

It seems to me that if there's any nonlinear phenomenon which allows some pressure waves to travel through air faster than the speed of sound, surely a nuclear blast would produce enough pressure to excite it. But it doesn't seem to. From http://www.globalsecurity.org/wmd/intro/nuke-blast.htm:

"During the time the blast wave is passing through the superheated atmosphere in the fireball, it travels at supersonic velocities. After it leaves the vicinity of the fireball, it slows down to the normal speed of sound in the atmosphere. As long as the blast wave is expanding radially, its intensity decreases approximately as the square of the distance. When the expanding blast wave from a nuclear air burst strikes the surface of the earth, however, it is reflected, and the reflected wave reinforces and intensifies the primary wave."

Roy Lewallen, W7EL

4803. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 00:27:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2mjeq1lpr0tav4nnld0k5506ue1pslnorm@4ax.com>
Source record: 66350

On Mon, 19 Dec 2005 23:02:09 +0000, Paul Johnson <baloo@ursine.ca>
wrote:

>Richard Clark wrote:
>
>> On Thu, 15 Dec 2005 09:02:17 +0000, Paul Johnson <baloo@ursine.ca>
>> wrote:
>>
>>>> (If I was poor enough, my idiot government would buy this stuff for me,
>>>> but instead, I believe I will be taxed to buy it for someone else.)
>>>
>>>Show me where I can sign up for a free TV from the government...
>>
>> Newsflash (it took less than a week to come true):
>> "Under a deal negotiated by Republicans in the House and Senate,
>> up to $1.5 billion would be available to help some people buy
>> converter boxes to keep their old, analog-signal televisions
>> working when the transition [to digital TV] is finished."
>>
>> Welcome to the GOP welfare state.
>
>There's a big difference between a cheap part from Radio Shack and a
>television...

On a pro-rata basis, it is 30,000,000 cheap parts. As Rummie tells
our troops, you gotta work with whatcha got!

If you want a TV, contribute to the DeLay defense fund (but you are
still kissing your tax money good-bye).

4804. Re: Z matching of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 00:57:30 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43A7570B.1923C04A@shaw.ca>
Source record: 66351

jgboyles@aol.com wrote:
>
> Chuck S. wrote:
> > With respects to antenna matching, i.e.: 50 to 450 Ohms, which is better to use, an autotransformer or a transformer with an isolated primary and secondary? I'm looking for the pro's and con's of each.
> >
> >
> > --
> > Yours truly,
> > Chuck
> >
> > WA3IAC
> > FN20la
> >
> > http://www.qsl.net/wa3iac/
>
> Hi Chuck, If I read your question correctly, you want to match a 450
> ohm antenna, with no reactive component, to a 50 ohm transmission line.
> In this case a 9:1 transformer would do the trick.
> If however you are trying to match an antenna fed with a length of
> 450 ohm line down to the transmitter, where it will need to be
> transformed to 50 ohms, an "L" network or some other impedance matching
> network will be required. The impedance seen at the end of the 450 ohm
> line, in this instance, will rarely be 450 ohms resistive.
> Gary N4AST

An autotransformer configuration would allow the buildup of
static electrical charges to go to ground.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4805. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:21:04 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <m4keq1tmlrevv8fm3gih3266obcdh725ba@4ax.com>
Source record: 66352

On Thu, 15 Dec 2005 09:02:17 +0000, Paul Johnson <baloo@ursine.ca>
wrote:

>Wes Stewart wrote:
>
>> Furthermore, my wife and rarely watch anything live (except for local
>> news), but use two DVRs for time shifting and commercial elimination.
>> So with my system, if I can get a picture at all, I would need three
>> STBs (set top boxes) that are programmable or a couple of new digital
>> recorders and a new TV set.
>
>Odds are you'll need the STB for each PVR, not TV. PVR's are basically a
>VCR with a computer instead of a video slot, same limitations apply with
>the signal you feed it. The video coming out of the PVR isn't going to
>change magically overnight, though.
>
>> (If I was poor enough, my idiot government would buy this stuff for me,
>> but instead, I believe I will be taxed to buy it for someone else.)
>
>Show me where I can sign up for a free TV from the government...

Actually, I think that you already know that the gummit is talking
about furnishing STBs to poor folk and you're just being
argumentative.

From this source:

http://www.todaysengineer.org/2005/Dec/spectrum.asp

"The Senate DTV bill, passed on 3 November, calls for a 7 April 2009
analog shutoff, and would use up to $3 billion of the $10 billion
expected from the analog spectrum auction to subsidize most of the
cost for converter boxes"

After the governmental "handling charge" the $3B will eat up $6B of
the "windfall."

And after a natural disaster cable TV systems will be working about as
well as cell phones have. While the old analog TV and radio will keep
chugging along.

http://www.nab.org/Newsroom/PressRel/Releases/WSJ101504.asp

>4:3 aspect was a technical limitation that really should have died long
>before my birth, much less now. Good riddance.

What "technical limitation"? Aspect ratios are arbitrary. Most were set based on film sizes, not some CCD. Some of the finest images ever produced are on 4 x 5 or 8 x 10 film negatives, often displayed with vertical orientation, as are many of the masters' paintings; so much for 16:9 horizonatal.

4806. Re: MFJ ANTENNA QUESTION

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:21:44 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <I0Jpf.904$oW.629@newssvr11.news.prodigy.com>
Source record: 66353

Steven Fritts wrote:
> I wonder if anyone has tried the MFJ collinear dipole that they have
> in their new catalog. It is two half waves with a quarter wave length
> of 450 ohm ladder line shorted at the bottom hanging down with an
> SO 239 connector for the 50 ohn feedline connection.

Sounds like a Double Zepp with a J-Pole-like matching stub.
The antenna feedpoint impedance is very high. The 1/4WL ladder-
line stub is shorted at the bottom. At some point up from the
bottom, a 50 ohm point can be achieved, just like on a J-Pole.
--
73, Cecil http://www.qsl.net/w5dxp

4807. Re: Z matching of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:23:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <o2Jpf.923$oW.96@newssvr11.news.prodigy.com>
Source record: 66354

Chuck S. wrote:
> With respects to antenna matching, i.e.: 50 to 450 Ohms, which is better
> to use, an autotransformer or a transformer with an isolated primary and
> secondary? Ii¿½m looking for the proï¿½s and coniï¿½s of each.

Where are you going to find a 450 ohm antenna?
--
73, Cecil http://www.qsl.net/w5dxp

4808. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:42:28 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <8kJpf.316866$zb5.87687@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66355

Wes,

You got that right. Perhaps you are even too kind to cable service.

After Hurricane Charley hit us head on last year we saw the following outages.

Ordinary phone: 4 days (mostly underground)

Electric power: 7 days (extensive pole replacement and rewiring)

Cell phones: about 2 weeks (temporary towers brought in)

Cable service: one month (cable runs on same poles as electric service)

There was no flooding from Charley, but the winds were quite a bit stronger than Katrina and Rita.

As soon as we got a temporary generator running we were able to watch regular over-the-air analog TV.

73,
Gene
W4SZ

Wes Stewart wrote:

[big snip]

> And after a natural disaster cable TV systems will be working about as
> well as cell phones have. While the old analog TV and radio will keep
> chugging along.

4809. OCF - Multiband antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:46:55 UTC
From: Gary from McDonough <gbrk@aol.com>
Message-ID: <1135043215.168864.195520@g44g2000cwa.googlegroups.com>
Source record: 66356

If you have one of the Off Center Fed dipole, Inverted Vee antennas that is out there either by Alpha-delta or HamCallnet's Buckmaster 6 band antenna. It appears that all these have the insulated wire that can run around trees with no problem and are constructed with 6:1 baluns. All of them say that they work most bands great without a tuner (15 mtr not included). I'm just curious of those on the newsgroup are any of you owners of any of these antennas? If so are the reports true that they out perform most other dipoles and Vees correct?

What do you think of the antennas and would you buy it again? Also which of the OCF antennas do you own or like?

Thanks in advance

Gary

4810. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:49:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do7nvkmnv1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66357

"Roy Lewallen" wrote
> A ferrite loop
> antenna simply has better efficiency than a standard loop of the
same
> physical size. Hence it has better gain or capture area.
==========

It's only a minor point, but when a ferrite core is placed inside a loop the efficiency remains the same. It's the same wire, the same coil dimensions, and hence the same loss in the resistance.

If anything happens to efficiency it is reduced due to a loss in the ferrite core material.

What happens is that the effective cross-sectional area of the loop increases approximately in proportion to the permeability of the core. For small permeabilities the capture area is much increased. But for larger permeabilities, say above 100, the effect diminishes and the effective core permeability settles down to the order of 20 or 30. It depends on the ratio of length to diameter of the core rather than of the coil.

To visualise, it should be remembered most of the magnetic circuit lies in the air between and near the ends of a ferrite rod. There is no point in increasing permeability of rod material beyond a certain amount in an attempt to increase capture area.

Capture area depends on the volume of the region of the e.m. field surrounding the core which is distorted by the core. See iron filings sprinkled round a bar magnet. When the reluctance of the rod itself is zero compared with that of the air path the limit of permeability has already been reached.

And high values of rod permeability are always associated with high core loss. The moral is obvious.

The sensitivity of the coil itself to e.m. waves is calculable. I'll stick out my neck and say the best a ferrite core can do is to increase the effective diameter of the coil by crudely 5 or 6 times.

Which means that the gain of your tiny pocket MF transistor radio is much better than your super-dooper transceiver which needs a 260-feet long dipole on the 160 meter band.

Just for the sake of argument!

Reg.

4811. Re: Ground Or Not To Ground Receiving Antenna In Storm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:52:10 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <etJpf.1233$oW.832@newssvr11.news.prodigy.com>
Source record: 66358

Reg Edwards wrote:
> Nevertheless, statistically speaking, the good people of Florida
> should be more scared of dying from gunshot wounds. But it doesn't
> seem to worry them very much.

Now that so many Floridians are packing, it's the criminals who
should be worried.
--
73, Cecil http://www.qsl.net/w5dxp

4812. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 01:56:47 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <zxJpf.172784$qk4.142292@bgtnsc05-news.ops.worldnet.att.net>
Source record: 66359

Richard,

There is no problem with Terman's words, but I believe you are missing his intention.

His point in bringing up the magnetic flux is merely to say that one can find "exactly the same voltage" in the one meter long conductor by considered either the electric field directly or by considering the sweep of the magnetic field. It is just a statement of equivalence of the two components of the incident plane wave. This same sort of statement is found in many other textbooks.

Terman's conductor is in free space. He discusses the voltage difference between one end of the conductor and the other end of the same conductor. He does not address the question at hand, which is the voltage between a perfect ground plane and the bottom of a short conductor near that ground plane.

At least two people have explained why that voltage is not one volt for an incident field strength of one volt per meter.

73,
Gene
W4SZ

Richard Harrison wrote:

[snip]

> Reg`s question of how much voltage is induced in 1 m of wire in a field
> of 1 V/m is answered clearly by Terman in publications which date back
> at least to 1932, the earliest copyright date I saw on "Radio
> Engineering". So, many competent and critical reviewers have pored over
> Terman`s works that it`s almost certain that any errors have been found
> and corrected long ago. Everybody makes mistakes, but now Terman is as
> close to infallible on the subject of radio as any author I know. Read
> page 2 of Terman`s "Electronnic and Radio Engineering" (1955 edition)
> for complete details. The same information appears in some other Terman
> authored and edited writings (almost word for word).
>
> Best regards, Richard Harrison, KB5WZI
>

4813. Re: Z matching of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 02:00:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do7ojanvp1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66360

"Chuck S." <chuckwa3iac@verizon.net> wrote in message
news:KIGpf.10022$aU4.4108@trnddc06...
With respects to antenna matching, i.e.: 50 to 450 Ohms, which is
better to use, an autotransformer or a transformer with an isolated
primary and secondary? I'm looking for the pro's and con's of each.
==========

It all depends on what you want the transformer to do besides perform
an impedance matching function.

Otherwise there's little to choose between them. The autotransformer
will have slightly less loss.

More details please.

Reg.

4814. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 02:39:38 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <ztmdnaklhNpz8zrenZ2dnUVZ_sSdnZ2d@comcast.com>
Source record: 66361

"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:173eq1li33s526o0f2j5s77t82f7sp2vhs@4ax.com...
>
>>>Yes, this was a CB ground plane design. There should have been a bracket
>>>that attached at bottom (metal coax connector area) and at top of loading
>>>coil.
>>>
>>>The application of heat with a heat gun (NOT a torch or open flame) -
>>>should
>>>allow the plastic composite to slip off the coil.
>>>
>>>Greg
>>>
>>I am glad I asked! The heat gun sounds like a better way than the
>>lathe. I will try that first.
>>
>>John Ferrell, W8CCW
>>
>>John Ferrell W8CCW
> It came apart pretty easy. If you would like to see what was inside
> click on http://dixienc.us/AntennaProject.htm
> I am impressed with the mechanical structure and will try to imitate
> it going back together.
> John Ferrell W8CCW

John -

This antenna model is almost identical to one that my brother was given in the 1970s. I see you used a torch (scorch marks)..... the corrosion can be removed with naval jelly or an electrolysis process (described in boatanchors newsgroup).

You should be able to wind a proper coil and have a 1/4 or 1/2 wave vertical for 15 or 17 meters. You could use schedule 40 electrical conduit (gray PVC) for new cover of coil.

w9gb

4815. Re: Still looking for a Tripp Lite PR-25 (or similar) DC power supply schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 02:46:32 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <EoadneNH9pUW7TrenZ2dnUVZ_tKdnZ2d@comcast.com>
Source record: 66362
Cross-posted to:
alt.binaries.schematics.electronic,rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.homebrew
Body handling: HTML body converted to readable text

"Paul P" wrote in
message news:LMFpf.315730$zb5.47297@bgtnsc04-news.ops.worldnet.att.net...
>
> Still looking for a Tripp Lite PR-25 (or similar model) DC power supply
> schematic to repair the club's repeater power supply. If any one has one
> I'd appreciate a copy, email or otherwise.
>
> I called Tripp Lite just now. According to Technical Support their
> PRESIDENT has recently mandated that they would NOT send any more
> schematics out.
> However, I could trade the supply in for a new one at about 85 bucks.
>
> Thanks and merry Christmas,
> Paul.
>
> paul at ppinyot dot com
>

Paul -

IF it uses the standard LM723 IC regulator and pass transistors (2N3055,
2N3771, or 2N3772) you do not need a schematic per say - to repair. Check
the pass transistors with you trusty VOM/DVM .. can replace 723 !!

Here is the DIY web site for linear supplies
http://www.kbt-dc-supplies.com/index.php

Astron schematics (everyone else copies them)
http://www.repeater-builder.com/astron/astron-index.html

Regulated Power Supply construction (how a linear supply works)
http://www.seits.org/features/pwrsup.htm

w9gb

4816. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 02:52:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do7rlc$k25$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66363

"Roy Lewallen" wrote

> Hm. Have my postings gone unread? Or just unbelieved?
>
==========

Or, am I trying to find somebody else who believes you ?

Terman, Kraus and Balanis and some computer programs are of no help!
;o)

Reg.

4817. Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 03:41:41 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <V3Lpf.6376$Tg2.5270@newsread1.news.pas.earthlink.net>
Source record: 66364

I've just begun (and I do mean begun!) a little refresher reading on the subject of transmission lines from a time *long* ago. I'm trying to make some sense out of why the emphasis of standing waves. The idea is familiar. Is it that somehow knowing something about the standing wave on the line that one can construct some sort of stub to smooth out the input impedance? If so, wouldn't the stub need to be tuned depending on the length of a cable? Can this be done somehow by the xmitter?

BTW, is there any analog of electrical impedance in hydraulics or other areas where waves are widely studied?

Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

"He who laughs, lasts." -- Mary Pettibone Poole
--

Web Page: <home.earthlink.net/~mtnviews>

4818. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 05:16:41 UTC
From: richardharrison@webtv.net
Message-ID: <26465-43A793B9-961@storefull-3254.bay.webtv.net>
Source record: 66365

Gene Fuller wrote:
"There is no problem with Terman`s words, but I believe you are missing his intention."

I parsed Terman`s words carefully trying to avoid misinterpretation.

There is a RCA FM Coverage Calculator (special slide rule) pictured and described on the internet. Text accompanies the rule. This text says the range of the rule is for a radius of urban coverage of 1000 microvolts per meter and a radius of rural coverage of 50 microvolts per meter. They obviously anticipate a much higher urban noise level than found in rural areas.

The rule has distance scales of 4 to 100 miles, and 16 to 143 miles..

The text says: "If you hold up 1 meter of wire at exactly the right angle, this is exactly how many millionths of a volt are generated between its ends.

If you assume that 50 microvolts per meter in the country gives an acceptable quality signal at the receiver, you`ll be able to calculate how far away you can reach."

There is much more text dealing with transmitter powers, broadcast antenna types, and antenna heights. Accuracy is said to be within 10%..

I`ve never seen one of these special slide rules myself, but maybe Walter Maxwell, Richard Fry, or someone else has and can elaborate. I quoted the text because it contained in effect the simple statement that 1 microvolt is generated betweens the ends of a well placed 1 meter long wire when immersed in a 1 microvolt electromagnetic field. I certainly never expected to see that fact debated.

Best regards, Richard Harrison, KB5WZI

4819. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 05:33:58 UTC
From: richardharrison@webtv.net
Message-ID: <26465-43A797C6-962@storefull-3254.bay.webtv.net>
Source record: 66366

Gene, W4SZ wrote:
"At least two people have explained why that voltage is not one volt per meter."

Here are Terman`s exact words again:
"The strength of the wave measured in terms of microvolts per meter of stress in space is also exactly the same voltage that the magnetic flux of the wave induces in a conductor 1 m long when sweeping across this conductor with the velocity of light."

I see Gene`s statemennt as a contradiction within itself. Definition of field strength is the volts it will generate in a wire 1 meter long. There is no contradiction in Terman`s statement.

Best regards, Richard Harrison, KB5WZI

4820. stevei shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 06:31:20 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1135060280.562026.114430@g49g2000cwa.googlegroups.com>
Source record: 66367
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

DrDeath wrote:
> "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> news:do3icl$s0$1@news6.svr.pol.co.uk...
more thread killing

4821. Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 06:55:39 UTC
From: The Eternal Squire <eternalsquire@hotmail.com>
Message-ID: <1135061739.857569.44630@g43g2000cwa.googlegroups.com>
Source record: 66368

All,

I'm finally back on the air! Thanks for the antenna help, everyone. I found on the net a 30m collapsible fiberglass pole. I applied copper tape to one side as the radiator. I used layers of duct tape to reinforce every joint. I have the ground side tied to the ground rod of the trailer electrical system. No counterpoise yet. I worked a few stations tonight on 40m CW.

I am grateful for all the help, even to those who thought I wasn't listening at first.

The Eternal Squire

4822. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 07:49:35 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <EIbp0hEPe7pDFA8X@ifwtech.co.uk>
Source record: 66369

The Eternal Squire wrote:
>All,
>
>I'm finally back on the air! Thanks for the antenna help, everyone. I
>found on the net a 30m collapsible fiberglass pole. I applied copper
>tape to one side as the radiator. I used layers of duct tape to
>reinforce every joint. I have the ground side tied to the ground rod
>of the trailer electrical system. No counterpoise yet. I worked a few
>stations tonight on 40m CW.
>
Glad to hear it - you're on the way now.

Next, put an ATU at the bottom of the pole and give yourself some more bands. It doesn't have to be an auto-ATU - a small headband flashlight is much better value.

Then get some more wire on the ground, and you'll be surprised how 40 and even 80m perk up.

>I am grateful for all the help, even to those who thought I wasn't
>listening at first.

Your sense of what can and can't be done has been spun completely around, first by the wind and then (probably less gently) by this NG. You seem to have survived the experience rather well.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4823. More Markie Mularkie

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 11:58:57 UTC
From: K4YZ <k4yz@aol.com>
Message-ID: <1135079937.604256.291980@g49g2000cwa.googlegroups.com>
Source record: 66370
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

an old friend wrote:
> DrDeath wrote:
> > "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> > news:do3icl$s0$1@news6.svr.pol.co.uk...
> more thread killing

You keep trying to censor others yet they keep right on ignoring
you.

I wonder why that is...?!?!

Steve, K4YZ

4824. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 12:46:37 UTC
From: Brian Kelly <kelly@dvol.com>
Message-ID: <1135082797.095551.304530@z14g2000cwz.googlegroups.com>
Source record: 66371

nm5k@wt.net wrote:
> I'll leave the theoretical howcums of my experince to those of you who
> are deep into the physics of electromagnetics. For my part another 1/4
> wave HF GP just ain't gonna happen here again elevated with radials or
> ground mounted with gazzilion radials. .....
>
>
> Kinda weird. The one I used here worked great. And almost
> identical specs. Mine was full size at 36 ft with 4 sloping radials.
> The only thing I can think of to explain it , would be ground quality.
> Evidentally, my ground quality must be pretty good compared to
> many areas of the country. I know it's a good bit better than Cecils,
> judging by the conductivity maps. If your's didn't work up to par,

Hi Mark. What's your/any definition of "par"in this context? What other
40M antenna did you A/B test against your GP on the air?

> I'd almost have to blame it on the radial system. I think you probably
> needed a few more to equal what I had here. In fact, going by the
> numbers, for a 1/4 wave at a 1/4 wave high, you really need 8 radials
> to equal 120 on the ground. I judged my 4 radials as being equal to
> about 60 radials for a ground mount.

No surprise there.

> But...My conductivity rating in
> this area is bordering on the "30" range being I'm not too far from the
> coast.

. . maybe someday I really will download that map . . Not that I can do
anything about what it tells me about the ground condx in my particular
neighborhood . .

> I know for sure Cecil would need more radials than mine for
> the same performance, as his was half the height and his ground
> rating is lower. .
> My hunch is if you had 8 radials on the GP, it probably would have
> done better.

Maybe, maybe not but realistic modeling elevated HF GPs would at least
provide some hints. Maybe.

>From what I've seen, heard and read over the years there's a whole
bunch of smoke, mirrors and mythology wrapped around the effects of
radials as they relate to current-fed HF verticals. Reg Edwards
"endfeed.exe ' ditty looks like it debunks a bunch of the mythology. In
any event and with all due respect I'm not about to get into

nit-picking any of it.

The situation I described was a sort of very subjective A/B "shootout" between my two 40M antennas as transmitting antennas and the so-far strange and unexplained results I got and I seriously doubt that my results would have been noticeably different if the GP had four more radials. My voltage-fed inverted L seriously and consistently outperformed the GP on long-haul contacts as a *transmitting* antenna to the tune of at least one s-unit, sometimes more particulary into the north Pacific, at the far end. But the two antennas seemed even-up when *receiving* on my end. That's the issue Cecil brought up. The only "radials" I had under the L was a three foot long #14 wire which ran from the cold side of the tuner to a copper-plated eight foot steel ground rod driven a few feet into the ground. It BOOMED. The GP did not.

> My GP totally smoked the ground mount I had that used 32 radials.
> No comparison at all.

Yup.

> I've never tried 1/2 waves on the low bands,
> except for extended inv-L's...I have run them 20m up though.
> Work well there.

Seems like they work nicely. So far my only measurable current-era experience with true ground-mounted half-wave "dipoles" came about when I operated portable for an extended period a few years ago and strung a coax-fed 20M dipole up into a big maple tree with the bottom end of it a foot or so above the ground. Lousy location, halfway down a hill on one side of a mini-valley but "I worked every station I called". Heh. My alternative antenna then was 475 feet of wire strung thru seven trees "resonated" by some MFJ rotary inductor clunker or another which was "gounded" by 75 feet of wire from my third floor shack to the nearest patch of grass. RFI disaster site. Zero RFI with the dipole.

Anyway I'm on my way into a new location. Tiny property which will host several voltage-fed HF verticals because of their minimum-size footprints. Along with the verticals the property also hosts a rather swampy bamboo farm. Big suckers too, maybe I can raise my own quad spreaders. What do you 'spose the ground resitivity and permitivity might be? Reg and Nec-Win- Plus want to know . . .

> MK

w3rv

4825. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 13:20:17 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43A80523.E3A51346@shaw.ca>
Source record: 66372

The Eternal Squire wrote:
>
> All,
>
> I'm finally back on the air! Thanks for the antenna help, everyone. I
> found on the net a 30m collapsible fiberglass pole. I applied copper
> tape to one side as the radiator. I used layers of duct tape to
> reinforce every joint. I have the ground side tied to the ground rod
> of the trailer electrical system. No counterpoise yet. I worked a few
> stations tonight on 40m CW.
>
> I am grateful for all the help, even to those who thought I wasn't
> listening at first.
>
> The Eternal Squire

My experience with duct tape is that it doesn't hold up well due
to weathering. I'm not sure if it was the cold, the sun, or what, but
it gradually let go and fell apart. I have no recommendations for
a substitute but someone on the group might.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4826. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 13:22:02 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <j10gq1tl3e3b838lgdp4dadqjcof9dnvov@4ax.com>
Source record: 66373

On Mon, 19 Dec 2005 20:39:38 -0600, "gb" <onw9mapsgb@no.arrl.spam.net>
wrote:

>
>John -
>
>This antenna model is almost identical to one that my brother was given in
>the 1970s. I see you used a torch (scorch marks)..... the corrosion can be
>removed with naval jelly or an electrolysis process (described in
>boatanchors newsgroup).
>
>You should be able to wind a proper coil and have a 1/4 or 1/2 wave vertical
>for 15 or 17 meters. You could use schedule 40 electrical conduit (gray
>PVC) for new cover of coil.
>
>w9gb
>
I used a paint stripper gun to loosen the PVC. After I discovered that
It would not be difficult to replace the sleeve I lost interest in
trying to save it.

On the next trip to town I will get some naval jelly for clean up. The
bracket hardware needs it as well.

My current plan for this project is to experiment with short 80 and
160 meter verticals. This is pretty early in the project, I have not
constructed the radial system yet.

The focus will be on matching methods, I feel the EZNEC software
answers most of my other questions.

This is an academic pursuit!

John Ferrell W8CCW

4827. Re: Identify Old HF Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 13:27:43 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <dl1gq110rjpvu1ume9fvfl75hkqm7fal5i@4ax.com>
Source record: 66374

On Mon, 19 Dec 2005 16:59:58 -0500, LarryLurker <Larry@Lurker.net>
wrote:

>What you have there is a Super Magnum CB antenna, vintage mid-60's.
>The Magnum model had 4 foot radials and no top hat. The Super Magnum
>has 9 foot radials with the top hat. By rewinding, or retapping the
>coil, you can make a great 10 meter vertical. .... or it may be
>simpler to change the length of the vertical section. I did the coil
>thing in the mid-80's and used it to work all states and 130
>countries.
>
>LL
>
That is a pretty impressive testimony!

John Ferrell W8CCW

4828. Antenna Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 13:48:03 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43a80ad7$1_4@newsfeed.slurp.net>
Source record: 66375

With all the earlier/ongoing posts here about the voltage across a receive antenna immersed in a known field, it may be appropriate to recall the affect that "antenna factor" has on these measured values. Here is a website with background on this:

http://www.djmelectronics.com/articles/emc-antenna-parameters-p3.html

The measured field strength using commercial VHF/UHF field intensity meters needs to be adjusted based on antenna factor to determine the real value of the incident field, using charts included with the test system documentation.

RF

4829. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 13:51:07 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <b13gq1hpjhp716b4u1p27bef66087dpa6v@4ax.com>
Source record: 66376

On 19 Dec 2005 22:55:39 -0800, "The Eternal Squire"
<eternalsquire@hotmail.com> wrote:

>All,
>
>I'm finally back on the air! Thanks for the antenna help, everyone. I
>found on the net a 30m collapsible fiberglass pole. I applied copper
>tape to one side as the radiator. I used layers of duct tape to
>reinforce every joint. I have the ground side tied to the ground rod
>of the trailer electrical system. No counterpoise yet. I worked a few
>stations tonight on 40m CW.
>
>I am grateful for all the help, even to those who thought I wasn't
>listening at first.
>
>The Eternal Squire
I have to ask:
Do you really mean 30 feet rather than 30 meters?
John Ferrell W8CCW

4830. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 13:58:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <36Upf.44214$Zv5.21586@newssvr25.news.prodigy.net>
Source record: 66377

Irv Finkleman wrote:
> My experience with duct tape is that it doesn't hold up well due
> to weathering. I'm not sure if it was the cold, the sun, or what, but
> it gradually let go and fell apart. I have no recommendations for
> a substitute but someone on the group might.

Automotive rated duct tape is of a higher quality than air-conditioning
duct tape - also more expensive. A coating of clear Krylon also helps.
--
73, Cecil http://www.qsl.net/w5dxp

4831. HELP: CST Microwave Studio: What means ,Maximum number of pulse widths simulated, ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 14:00:52 UTC
From: dudelman@yahoo.com
Message-ID: <1135087252.282632.119520@g14g2000cwa.googlegroups.com>
Source record: 66378

Hi Folks,

I have no idea what ,Maximum number of pulse widths simulated, refers
to, and the online help doesn't either point it out.

Any suggestions?

Best regards and thanks in advance - dudelman.

4832. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 14:16:17 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <RmUpf.174366$qk4.158888@bgtnsc05-news.ops.worldnet.att.net>
Source record: 66379

Richard,

Not only are you misunderstanding Terman, you have twisted my words as well.

I said, "At least two people have explained why that voltage is not one volt for an incident field strength of one volt per meter."

You removed some of my words and completely changed the meaning.

Once more, Terman is undoubtedly correct with his statement. I agree completely. However, the configuration described by Terman is NOT the subject at hand.

73,
Gene
W4SZ

Richard Harrison wrote:
> Gene, W4SZ wrote:
> "At least two people have explained why that voltage is not one volt per
> meter."
>
> Here are Terman`s exact words again:
> "The strength of the wave measured in terms of microvolts per meter of
> stress in space is also exactly the same voltage that the magnetic flux
> of the wave induces in a conductor 1 m long when sweeping across this
> conductor with the velocity of light."
>
> I see Gene`s statemennt as a contradiction within itself. Definition of
> field strength is the volts it will generate in a wire 1 meter long.
> There is no contradiction in Terman`s statement.
>
> Best regards, Richard Harrison, KB5WZI
>

4833. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 14:40:14 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <lrswr2.CL9@bath.ac.uk>
Source record: 66380

Richard Harrison wrote:

> Gene Fuller wrote:
> "There is no problem with Terman`s words, but I believe you are missing
> his intention."
>
> I parsed Terman`s words carefully trying to avoid misinterpretation.
>
> There is a RCA FM Coverage Calculator (special slide rule) pictured and
> described on the internet. Text accompanies the rule. This text says the
> range of the rule is for a radius of urban coverage of 1000 microvolts
> per meter and a radius of rural coverage of 50 microvolts per meter.
> They obviously anticipate a much higher urban noise level than found in
> rural areas.
>
> The rule has distance scales of 4 to 100 miles, and 16 to 143 miles..
>
> The text says: "If you hold up 1 meter of wire at exactly the right
> angle, this is exactly how many millionths of a volt are generated
> between its ends.
>

And just how are you going to measure that voltage without getting an opposite voltage in your voltmeter leads. Or alternatively how can you present that voltage at the input to a receiver?

You can't. So the above tells us zip about the question Reg asked. Roy answered the question correctly and you haven't even attempted it. Why is that?

Andy

4834. grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 15:17:49 UTC
From: sjt <k5gak@arrl.net>
Message-ID: <e68c4$43a820a3$4f0d5b0$21109@DIALUPUSA.NET>
Source record: 66381

I am installing a short tower. The soil is very dry, mostly volcanic ash and low conductivity. I had the backhoe operator dirll several holes 4 feet deep for grounding. It is impossible to drive a ground rod deeper than 4 feet due to bedrock. What should I use to fill the holes after the ground rods are installed?

4835. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 15:38:02 UTC
From: richardharrison@webtv.net
Message-ID: <25358-43A8255A-47@storefull-3257.bay.webtv.net>
Source record: 66382

Reg, G4FGQ wrote:
"Terman, Kraus, and Balanis and some computer programs are of no help!"

My dictionary defines "field strength" as:
"3. The strength of radio waves at a distance from the transmitting antenna, usually expressed in microvolts-per-meter. This is not the same as the strength of a radio signal at the antenna terminals of the receiver."

The definition looks OK to me. The reason the signal is not the same as the microvolts-per-meter even when the antenna is a 1-meter length of wire with just the right slant is because the induced voltage gets divided between the antenna and its load (the receiver).

Maybe Cecil`s IEEE dictionary has something to say about field strength.

Best regards, Richard Harrison, KB5WZI

4836. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 16:06:19 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%ZVpf.37084$q%.36663@newssvr12.news.prodigy.com>
Source record: 66383

Richard Harrison wrote:
> Maybe Cecil`s IEEE dictionary has something to say about field strength.

magnitude of the electric field vector in volts per meter, or
magnitude of the magnetic field vector in amps (or ampere-turns) per meter,
or power flux density P in watts per square meter.
--
73, Cecil http://www.qsl.net/w5dxp

4837. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 17:19:05 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1135099145.094973.160920@f14g2000cwb.googlegroups.com>
Source record: 66384

You are lucky to have 4 feet. I have 8 inches or less around my house.
Zero behind the garage.

Is this going to be an antenna or just a tower for an antenna? Is the
area irrigated/watered for grass? If an antenna, you will need to
install a bunch of radials on or just under the ground surface. If you
are trying to ground the tower for lightening protection, I guess I
would mix a bunch of granular commercial fertilizer in with the soil as
I packed it around the ground rods. Then lots of water on the area.

Did you also have holes placed for guy wire anchors?

Paul, KD7HB

4838. Re: Still looking for a Tripp Lite PR-25 (or similar) DC power supply schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 17:28:10 UTC
From: PS_DUDE <psdude@psdude.com>
Message-ID: <43A83F2A.72DD0E2C@psdude.com>
Source record: 66385
Cross-posted to:
alt.binaries.schematics.electronic,rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

hi paul,

Tripp lite makes good supplies but lacks in the
support side !

Good thing is the supplies use off the shelf parts
or easy substituted parts from anywhre,
http://www.mouser.com etc.

What problem(s) are you having ?

73 ps dude

4839. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 17:51:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <52hgq1trg07spm2fpm3g515f6nllimpjg1@4ax.com>
Source record: 66386

On Tue, 20 Dec 2005 14:40:14 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
wrote:
>> The text says: "If you hold up 1 meter of wire at exactly the right
>> angle, this is exactly how many millionths of a volt are generated
>> between its ends.
>And just how are you going to measure that voltage without getting an
>opposite voltage in your voltmeter leads.

Hi Andy,

You make a loop.

73's
Richard Clark, KB7QHC

4840. Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:18:22 UTC
From: Ron J <bigschlong@gmail.com>
Message-ID: <1135102701.893263.244550@o13g2000cwo.googlegroups.com>
Source record: 66387

Hello,

I was curious. If a matching network was designed to make the SWR at a band of frequency less than 1.4 to 1, then what would happen if I inserted a power sensor on the line with a rated SWR of 1.05 to 1 at this frequency band?

Would that make my overall system SWR 1.4 + .05 = 1.45 to 1?

Thanks!

4841. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:19:11 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1135102751.103538.224970@g47g2000cwa.googlegroups.com>
Source record: 66388

There are several possible reasons for being interested in standing waves (on transmission lines). Some are valid, some are not, and you'll even get plenty of, um, discussion about what's valid and what isn't.

If your goal is to get maximum power delivered to a load, then it's good to minimize standing waves on the line delivering power to that load, because a line delivering a particular amount of power to a load will have greater power lost in the line with greater standing waves. If the line is being used near its maximum power or voltage rating, standing waves are a concern because for a given power delivered to the load, the rms current at current nodes and the peak voltage at voltage nodes both increase with increased standing waves. And a high standing wave ratio on a line which is long compared with a wavelength suggests that the input impedance to the line will vary rapidly with frequency, whereas a line with low standing wave ratio will present a relatively constant impedance to the driving source, assuming the load is reasonably "flat" with frequency.

As an example of this last point, a 30 meter (~100 foot) 50 ohm line with 0.8 velocity factor and very low loss, delivering power to a 50 ohm load at 450MHz, will present a 50 ohm load to the driving source. But delivering power to a 200 ohm load, the source will "see" almost 200 ohms at frequencies where the line is an integer number of electrical half-waves long, and it will "see" just over 12.5 ohms midway between those frequencies. You get 200 ohms at 440MHz, 12.5 ohms at 442MHz--and reactive in between.

It's possible to use stubs and series line sections to effect an impedance match between a load and a line. For example, the right length and impedance series section will give you a match at one particular frequency, at least, and multiple sections can give you a "perfect" match at multiple frequencies, with (perhaps) quite acceptable match over a range of frequencies.

There are lists of analogs among electrical, mechanical, acoustic, and other media. "electrical hydraulic impedance analog" in a Google search will give you many hits.

Cheers,
Tom

4842. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:28:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <j3Ypf.44257$Zv5.13213@newssvr25.news.prodigy.net>
Source record: 66389

Ron J wrote:
> I was curious. If a matching network was designed to make the SWR at a
> band of frequency less than 1.4 to 1, then what would happen if I
> inserted a power sensor on the line with a rated SWR of 1.05 to 1 at
> this frequency band?
>
> Would that make my overall system SWR 1.4 + .05 = 1.45 to 1?

SWRs, like power, cannot be superposed.
--
73, Cecil http://www.qsl.net/w5dxp

4843. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:32:38 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <a7Ypf.7984$Dd2.7219@newsread3.news.atl.earthlink.net>
Source record: 66390

"Ron J" <bigschlong@gmail.com> wrote in message
news:1135102701.893263.244550@o13g2000cwo.googlegroups.com...
> Hello,
>
> I was curious. If a matching network was designed to make the SWR at a
> band of frequency less than 1.4 to 1, then what would happen if I
> inserted a power sensor on the line with a rated SWR of 1.05 to 1 at
> this frequency band?
>
> Would that make my overall system SWR 1.4 + .05 = 1.45 to 1?
>

No, SWR does not do a simple addition. If it is a power sensor that uses a short piece of transmission line then you have to know the frequency , the length in wavelengths, the inpedance of the line, and then do some calculations. It could be slightly beter or worse than it was to start with. Probably not enough to show on a simple swr meter.

4844. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:42:14 UTC
From: Ron J <bigschlong@gmail.com>
Message-ID: <1135104134.083886.169140@g14g2000cwa.googlegroups.com>
Source record: 66391

Hi Cecil,

Thanks! I try to explain the affect of the power sensor even if it is ideally very minimal. My main concern is that at the band of design frequency the transmitter is only designed to handle 1.5 SWR max. I'm afraid that I might break it since our matching network already changes the SWR to a peak 1.40 to 1 at certain frequencies on the band.

I may have other idea. If I add the return loss of the devices, would that allow me to somehow find the SWR?

Thanks!

4845. more heaping stevie shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:43:41 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1135104221.580690.175130@g44g2000cwa.googlegroups.com>
Source record: 66392
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

K4YZ wrote:
> an old friend wrote:
> > DrDeath wrote:
> > > "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> > > news:do3icl$s0$1@news6.svr.pol.co.uk...
> > more thread killing
>
> You keep trying to censor others yet they keep right on ignoring
> you.
>
> I wonder why that is...?!?!

becuase you are a racist in part
>
> Steve, K4YZ

4846. More Markie Mularkie

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:47:07 UTC
From: K4YZ <k4yz@aol.com>
Message-ID: <1135104427.270844.31240@o13g2000cwo.googlegroups.com>
Source record: 66393
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

an old friend wrote:
> K4YZ wrote:
> > an old friend wrote:
> > > DrDeath wrote:
> > > > "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> > > > news:do3icl$s0$1@news6.svr.pol.co.uk...
> > > more thread killing
> > >
> > You keep trying to censor others yet they keep right on ignoring
> > you.
> >
> > I wonder why that is...?!?!
>
> becuase you are a racist in part

You being ignored as a censor has nothing to do with ANYone being
a racist, Markie...

But it does have EVERYthing to do with you being a fool.

Steve, K4YZ

4847. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:47:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7lYpf.44262$Zv5.18745@newssvr25.news.prodigy.net>
Source record: 66394

Ron J wrote:
> My main concern is that at the band of design
> frequency the transmitter is only designed to handle 1.5 SWR max. I'm
> afraid that I might break it since our matching network already changes
> the SWR to a peak 1.40 to 1 at certain frequencies on the band.
>
> I may have other idea. If I add the return loss of the devices, would
> that allow me to somehow find the SWR?

Measure the impedance of the system (using low power). That's the only
way to know for sure.
--
73, Cecil http://www.qsl.net/w5dxp

4848. yet more stvei shit

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:50:38 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1135104638.521121.181110@g49g2000cwa.googlegroups.com>
Source record: 66395
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

K4YZ wrote:
> an old friend wrote:
> > K4YZ wrote:
> > > an old friend wrote:
> > > > DrDeath wrote:
> > > > > "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> > > > > news:do3icl$s0$1@news6.svr.pol.co.uk...
> > > > more thread killing
> > > >
> > > You keep trying to censor others yet they keep right on ignoring
> > > you.
> > >
> > > I wonder why that is...?!?!
> > >
> > becuase you are a racist in part
> >
> You being ignored as a censor has nothing to do with ANYone being
> a racist, Markie...

yes it does since what I am trying to kill off is a thread of rasist
material

that rasist posted it and a racist like yourself suports keeping it
alive has everything to do with it
>
> But it does have EVERYthing to do with you being a fool.

wrong agina
>
> Steve, K4YZ

4849. More Markie Mularkie

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:54:37 UTC
From: K4YZ <k4yz@aol.com>
Message-ID: <1135104876.950374.195170@g49g2000cwa.googlegroups.com>
Source record: 66396
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

an_old_friend wrote:
> K4YZ wrote:
> > an old friend wrote:
> > > K4YZ wrote:
> > > > an old friend wrote:
> > > > > DrDeath wrote:
> > > > > > "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> > > > > > news:do3icl$s0$1@news6.svr.pol.co.uk...
> > > > > more thread killing
> > > >
> > > > You keep trying to censor others yet they keep right on ignoring
> > > > you.
> > > >
> > > > I wonder why that is...?!?!
> > >
> > > becuase you are a racist in part
> >
> > You being ignored as a censor has nothing to do with ANYone being
> > a racist, Markie...
>
> yes it does since what I am trying to kill off is a thread of rasist
> material
>
> that rasist posted it and a racist like yourself suports keeping it
> alive has everything to do with it
> >
> > But it does have EVERYthing to do with you being a fool.
>
> wrong agina

"wrong agina".....

BBBBWWWHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHA
HAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHA
HAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHA

YES, MARKIE, YOU >>>ARE<<< A FOOL!

Thanks for proving it...AGAIN!

Steve, K4YZ

4850. stvei contiues to spread and aid rasist shit in being spread

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 18:59:22 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1135105162.280236.230030@g14g2000cwa.googlegroups.com>
Source record: 66397
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

K4YZ wrote:
> an_old_friend wrote:
> > K4YZ wrote:
> > > an old friend wrote:
> > > > K4YZ wrote:
> > > > > an old friend wrote:
> > > > > > DrDeath wrote:
> > > > > > > "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> > > > > > > news:do3icl$s0$1@news6.svr.pol.co.uk...
> > > > > > > more thread killing
> > > > > >
> > > > > > You keep trying to censor others yet they keep right on ignoring
> > > > > > you.
> > > > > >
> > > > > > I wonder why that is...?!?!
> > > > >
> > > > > becuase you are a racist in part
> > > >
> > > > You being ignored as a censor has nothing to do with ANYone being
> > > > a racist, Markie...
> > >
> > > yes it does since what I am trying to kill off is a thread of rasist
> > > material

can't aswer thw point racist shit
> >
> > that rasist posted it and a racist like yourself suports keeping it
> > alive has everything to do with it
> > >
> > > But it does have EVERYthing to do with you being a fool.
> >
> > wrong agina
>
> "wrong agina".....
cuting stvei whing

4851. More Markie Mularkie

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 19:46:28 UTC
From: K4YZ <stevenrobeson@yahoo.com>
Message-ID: <1135107988.588191.76590@g44g2000cwa.googlegroups.com>
Source record: 66398
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

an_old_friend wrote:
> K4YZ wrote:
> > an_old_friend wrote:
> > > K4YZ wrote:
> > > > an old friend wrote:
> > > > > K4YZ wrote:
> > > > > > an old friend wrote:
> > > > > > > DrDeath wrote:
> > > > > > > > "The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
> > > > > > > > news:do3icl$s0$1@news6.svr.pol.co.uk...
> > > > > > > > more thread killing
> > > > > > >
> > > > > > > You keep trying to censor others yet they keep right on ignoring
> > > > > > > you.
> > > > > > >
> > > > > > > I wonder why that is...?!?!
> > > > > >
> > > > > > becuase you are a racist in part
> > > > >
> > > > > You being ignored as a censor has nothing to do with ANYone being
> > > > > a racist, Markie...
> > > >
> > > > yes it does since what I am trying to kill off is a thread of rasist
> > > > material
> >
> > can't aswer thw point racist ####

Yes, Markie...You're a racist. We know that.

> > > that rasist posted it and a racist like yourself suports keeping it
> > > alive has everything to do with it
> > >
> > > But it does have EVERYthing to do with you being a fool.
> > >
> > > wrong agina
> >
> > "wrong agina".....
>
> cuting stvei whing

It's not "whining", Markie...

It's out-and-out laughing my butt off at you!

BBBWWWHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHA
HAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHAHA
HAHAHAHAHAHAHAHAHAHAHAHAHAHAHA!!

Steve, K4YZ

4852. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 19:56:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e4ngq1dlc0s7e2m2kr2ehsnch370hg7920@4ax.com>
Source record: 66399

On 20 Dec 2005 10:18:22 -0800, "Ron J" <bigschlong@gmail.com> wrote:
>I was curious. If a matching network was designed to make the SWR at a
>band of frequency less than 1.4 to 1, then what would happen if I
>inserted a power sensor on the line with a rated SWR of 1.05 to 1 at
>this frequency band?
>
>Would that make my overall system SWR 1.4 + .05 = 1.45 to 1?

Hi Ron,

You leave too many issues unsaid. For one, it seems hardly likely
that you are substituting the load with the sensor, so the sensor must
be on a branch. The branch is going to have to be inserted inline,
and it is going to have its own issues.

You also say nothing of frequency. It doesn't particularly matter as
far as SWR goes, but it goes a great distance in your ability to
flatten the SWR.

You also ask "what would happen?" and that is so open-ended as to be
worthy of a 600 posting thread. Do you really want to be so vague?

You later add that your source can only tolerate a SWR of 1.5 max.
This is too too fragile by half. No doubt you are speaking of
something other that will be perturbed, but I know of no sources that
collapse to their knees under such a mismatch.

And to get back to the nut of the matter, SWRs don't add, at least not
linearly. They would be associated through a root-sum-square process.
However, with only these two numbers, the errors injected by mismatch
are trivial at ï¿½1%.

73's
Richard Clark, KB7QHC

4853. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 20:38:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do9q49$n5a$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66400

I note the subject matter of this thread is "Insertion Loss"

Insertion loss is the ratio of power delivered to a load, to the power delivered to the same load when a network is inserted between the load and the same generator.

With insertion of a passive network, such as a tuner, the insertion loss can even be a gain.

Calculation or measurement of insertion loss ALWAYS involves or implies knowledge of the generator impedance. In the present context the generator is the transmitter.

As nobody knows the internal impedance of the transmitter this thread will rapidly degenerate into nonsensical argument if it hasn't already done so.

You have been warned!

Reg, G4FGQ

4854. more stevei lies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 20:52:47 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1135111967.356035.112600@z14g2000cwz.googlegroups.com>
Source record: 66401
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

K4YZ wrote:
> an_old_friend wrote:
> > K4YZ wrote:
> > > an_old_friend wrote:
> > > > K4YZ wrote:
> > > > > an old friend wrote:
> > > > > > K4YZ wrote:
scut
> > > > > > You being ignored as a censor has nothing to do with ANYone being
> > > > > > a racist, Markie...
> > > > >
> > > > > yes it does since what I am trying to kill off is a thread of rasist
> > > > > material
> > >
> > > can't aswer thw point racist ####
> >
> > Yes, Markie...You're a racist. We know that.

nope
>
> > > > that rasist posted it and a racist like yourself suports keeping it
> > > > alive has everything to do with it
> > > > >
> > > > > But it does have EVERYthing to do with you being a fool.
> > > >
> > > > wrong agina
> > >
> > > "wrong agina".....
> >
> > cuting stvei whing
>
> It's not "whining", Markie...
>
> It's out-and-out laughing my butt off at you!
more lying then when you claimed nothing i typed was funny

4855. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 21:00:03 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <uorgq15h012euva6lmml5aojs7s506ttm2@4ax.com>
Source record: 66402

On 20 Dec 2005 10:42:14 -0800, "Ron J" <bigschlong@gmail.com> wrote:

>Hi Cecil,
>
>Thanks! I try to explain the affect of the power sensor even if it is
>ideally very minimal. My main concern is that at the band of design
>frequency the transmitter is only designed to handle 1.5 SWR max. I'm
>afraid that I might break it since our matching network already changes
>the SWR to a peak 1.40 to 1 at certain frequencies on the band.
>
>I may have other idea. If I add the return loss of the devices, would
>that allow me to somehow find the SWR?

As others have told you, no, the system isn't analysed as simply as
you suggest.

Some thoughts:
- your concern that your transmitter will suddenly degrade at VSWR=1.5
is probably unfounded;
- if your power sensor is intended for inline monitoring, it should be
designed to "monitor" with insignificant impact on the load presented
to the transmitter.

You didn't tell us enough to give you a definitive answer, but it is
likely that you are unnecessarily worried about the sensitivity of the
transmitter to VSWR, and the cumulative effect of the monitoring
sensor which should be insignificantly small in the real world with
suitable / practical components.

Owen
--

4856. Re: more stevei lies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 21:22:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do9sng$56n$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66403
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

What is the proportion of Black amateur radio licencees to Whites?

How does it correspond to the same proportion in the population as a
whole?
==========

4857. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 21:33:50 UTC
From: richardharrison@webtv.net
Message-ID: <27842-43A878BE-1151@storefull-3251.bay.webtv.net>
Source record: 66405

Andy wrote:
"So the above told us zip about the question Reg asked. Roy answered the question correctly and you haven`t even attempted it."

I assumed the definition of "field strength" correctly answered Reg`s question and his descrepancy lay elswhere.

Field strength of an electromagnetic wave is expressed in microvolts per meter. It is defined as the number of microvolts which would be induced in a properly placed piece of wire one meter long.

If a field strength of one microvolt per meter does not induce one microvolt into a piece of wire one meter long, why not? I`ve been looking for an explanation and found a possible answer in Figure 2-9-1 on page 31 of Kraus` 3rd edition of "Antennas".

The possible explanation is called the "effective height" in meters of an antenna. It is a "factor", which when multiplied by the microvolts per meter of the field strength, gives the volts induced in the antenna at its terminals.

According to Kraus` figure, h is a function of current distribution in the antenna. The text says that for a dipole 0.1 lambda long, h = 0.5X the length of the antenna. Reg did not specify a frequency or wavelength for his antenna, as I recall, and he did specify a ground mounted vertical whip 1 m long for his receiving antenna.

For a dipole 0.5 lambda long, Kraus gives (h) as 0.64X the length of the antenna.

For all I know, there is a vertical antenna length in terms of wavelength for which h=1. If so, the volts between the antenna base and the ground directly under it would numerically exactly equal the microvolts per meter of the field strength. All we need to do is pick the right frequency. The applicable Formula is (1) on page 30.

I suspect that in most cases, h is determined experimentally.

I regret I`ve not had a copy of Kraus nearly as long as I`ve had a copy of Terman. I`m still using an edition I`ve had for 58 years. It shows lots of wear and tear.

Best regards, Richard Harrison, KB5WZI

4858. Re: more stevei lies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 21:43:31 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <DNGdncHNgZZj5zXeRVn-hg@comcast.com>
Source record: 66404
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Reg Edwards wrote:
> What is the proportion of Black amateur radio licencees to Whites?
>
> How does it correspond to the same proportion in the population as a
> whole?
> ==
>
>

I don't believe that information is required on an application.
Therefore it should be un-obtainable.

4859. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 22:00:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uavgq1t8lm83reohl0c6luvsvj0j4j4sik@4ax.com>
Source record: 66406

On Tue, 20 Dec 2005 15:33:50 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>For a dipole 0.5 lambda long, Kraus gives (h) as 0.64X the length of the >antenna.

Hi Richard,

This is exactly (within one percent) of what the NIST uses for their standard field measurements (described elsewhere in these threads).

73's
Richard Clark, KB7QHC

4860. Re: more stevei lies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 22:06:20 UTC
From: The Magnum <magnum@NOSPAMmag2781.freeserve.co.uk>
Message-ID: <do9v67$el4$1@news7.svr.pol.co.uk>
Source record: 66407
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Amos Keag" <A.K01@comcast.net> wrote in message
news:DNGdncHNgZZj5zXeRVn-hg@comcast.com...
> Reg Edwards wrote:
> > What is the proportion of Black amateur radio licencees to Whites?
> >
> > How does it correspond to the same proportion in the population as a
> > whole?
> > ==
> >
> >
>
> I don't believe that information is required on an application.
> Therefore it should be un-obtainable.

That percentage must be rising now thanks to the M3/CB'ers licence as so many Hams class it. Before I would say it was very low as it doesn't involve shooting people, stealing mugging or raping. Now it takes no effort there will be plenty of them using the radios to co-ordinate robberies and gangland shootings... yeeee haaaaah good buddy.....

So what's wrong with being racist? Why let your neighbourhood turn into a shithole.....

4861. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 22:06:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <do9va0$6pq$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66408

"Richard Clark" wrote
> You make a loop.
=====================================

I normally reply, if I reply at all to your idiotic statements, with "Phooey".

But on this occasion, to protect innocent, bystanding, novices from your deliberate, inexcusible, misleading statement, it should be said that the voltage induced in a circular loop is altogether different and very much smaller from that induced in a straight wire of the same length.

You disgust me! A disgrace to amateur radio!

Have a miserable Christmas!

Reg, G4FGQ.

4862. Re: Device insertion loss

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 23:02:43 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <qe1hq1pphkfk65bo4lp704ho0gsgn0mgpa@4ax.com>
Source record: 66409

On Tue, 20 Dec 2005 18:28:31 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Ron J wrote:
>> I was curious. If a matching network was designed to make the SWR at a
>> band of frequency less than 1.4 to 1, then what would happen if I
>> inserted a power sensor on the line with a rated SWR of 1.05 to 1 at
>> this frequency band?
>>
>> Would that make my overall system SWR 1.4 + .05 = 1.45 to 1?
>
>SWRs, like power, cannot be superposed.

Because the worse case SWR is often the concern, it can in fact be
found, not by addition but by multiplication.

In the case given, the worse case SWR = 1.4 * 1.05 = 1.47:1, an
insignificant change from the original due to the insertion of, what I
believe is an in-line sensor.

Of course, it is equally likely that the insertion of the power sensor
will -improve- the SWR.

Consider both SWRs in terms of their equivalent reflection
coefficients, rho.

$$\text{rho} = \frac{\text{swr} - 1}{\text{swr} + 1}$$

Letting swr = 1.4, rho = 0.1667

With swr = 1.05, rho = 0.0244

Worse case = 0.1667 + 0.0244 = 0.1919

Converting back to SWR = 1.473, as given above.

Best case = 0.1667 - 0.0244 = 0.1423

Converting back to SWR = 1.331

Without Gamma, which has phase info, all we know are the error limits,
the SWR is somewhere between 1.331 and 1.473.

Note: If we could make the swr of the sensor = 1.4 and put it in the
right location in the line, the net swr = 1:1. This is commonly
called a -matching network-. [g]

4863. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 23:11:21 UTC
From: richardharrison@webtv.net
Message-ID: <25358-43A88F99-94@storefull-3257.bay.webtv.net>
Source record: 66411

Reg, G4FGQ wrote:
"Have a miserable Christmas!"

In the cinema, "The Grinch Who Stole Christmas", the Grinch turned into a kind, green, Santa Claus. Let`s hope Reg has a change of heart too!

Merry Christmas, Richard Harrison, KB5WZI

4864. Re: more stevei lies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 23:19:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doa3ik$o52$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66410
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"Amos Keag" wrote -
> Reg Edwards wrote:
> > What is the proportion of Black amateur radio licencees to Whites?
> >
> > How does it correspond to the same proportion in the population as
a
> > whole?
> > ==
> I don't believe that information is required on an application.
> Therefore it should be un-obtainable.
>
==
Indeed it is. But you can always have a guess and think about what it
means.

Reg.

4865. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 23:27:28 UTC
From: richardharrison@webtv.net
Message-ID: <25358-43A89360-96@storefull-3257.bay.webtv.net>
Source record: 66412

Richard Clark wrote:
"You make a loop."

There is a difference. The small whip has a high capacitive reactance. The small loop has a high inductive reacvtance. Both have low radiation resistance. But, the loop is more often used to determine EM field strength. You just need the right "fudge factor" to convert antenna voltage tto field strength or vice versa.

Best regards, Richard Harrison, KB5WZI

4866. Re: Z matching of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-20 23:46:56 UTC
From: "Chuck S." <chuckwa3iac@verizon.net>
Message-ID: <QJ0qf.5520$vJ4.1278@trnddc07>
Source record: 66413

Someone ask for more info. Well Cecil I was thinking of matching to a Beverage antenna. From what I read they are around 450 Ohms, maybe more or less some. Most seem to use a transformer with an isolate primary, but in the ARRL antenna book, 2005, CH. 13 they show a auto transformer. I was interested in hearing from someone if one type is better then the other. I have built both types and tested them on the bench with a resistor load and they seem to work the same. I don't have the room to put up a Beverage antenna otherwise I would.

Chuck
"Cecil Moore" <mycall@arrl.net> wrote in message
news:o2Jpf.923$oW.96@newssvr11.news.prodigy.com...
> Chuck S. wrote:
>> With respects to antenna matching, i.e.: 50 to 450 Ohms, which is better
>> to use, an autotransformer or a transformer with an isolated primary and
>> secondary? I m looking for the pro s and con s of each.
>
> Where are you going to find a 450 ohm antenna?
> --
> 73, Cecil http://www.qsl.net/w5dxp

4867. Re: Still looking for a Tripp Lite PR-25 (or similar) DC power supply schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 00:00:08 UTC
From: Paul P <p.pinyotREMOVE@REMOVEworldnet.attREMOVE.netREMOVE>
Message-ID: <cW0qf.175681$qk4.13936@bgtnsc05-news.ops.worldnet.att.net>
Source record: 66414
Cross-posted to:
alt.binaries.schematics.electronic,rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

There are a couple of smoked resistors on the regulator board. I can not trust the ohm meter reading so I wanted to verify its value. I am trying to avoid De-engineering the board. Now once the resistors are replace there may be something else that smoked the resistors too.

Paul.

"PS_DUDE" <psdude@psdude.com> wrote in message
news:43A83F2A.72DD0E2C@psdude.com...
> hi paul,
>
> Tripp lite makes good supplies but lacks in the
> support side !
>
> Good thing is the supplies use off the shelf parts
> or easy substituted parts from anywhre,
> http://www.mouser.com etc.
>
> What problem(s) are you having ?
>
> 73 ps dude
>

4868. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 00:30:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doa7n7$1cl$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66415

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:25358-43A89360-96@storefull-3257.bay.webtv.net...
> Richard Clark wrote:
> "You make a loop."
>
> There is a difference. The small whip has a high capacitive
reactance.
> The small loop has a high inductive reacvtance. Both have low
radiation
> resistance. But, the loop is more often used to determine EM field
> strength. You just need the right "fudge factor" to convert antenna
> voltage tto field strength or vice versa.
>
> Best regards, Richard Harrison, KB5WZI
==========

For the very last time I will repeat my question :-

"What is the voltage measured between the bottom end of a 1 metre
vertical antenna and ground when the field strength is 1 volt per
metre.

The height (length) of the antenna is much less than 1/4-wavelength.
The bottom end of the antenna is immediately above the ground. The
ground is assumed perfect. The field is vertically polarised.

Frequency, loops, reactance, radiation resistance do not enter into
the argument. No other information is needed.

Terman, Kraus and Balanis' bibles provide answers to a different
question in which I am not interested. Mere mention of these learned
gentlemen only confuses the issue.

The answer is entirely fundamental to e.m. radiation and reception.

All I need is a number of volts. What is it please?

Reg, G4FGQ.

4869. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 01:10:49 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43a8aade_2@newsfeed.slurp.net>
Source record: 66416

"Reg Edwards" wrote
> For the very last time I will repeat my question :-

Pray it so...

> "What is the voltage measured between the bottom end of a 1 metre
> vertical antenna and ground when the field strength is 1 volt per
> metre."

Of what relevance is this to anyone but (apparently) you? Please elaborate.

RF

4870. Geo coordinates -- didtance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 01:31:56 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <43a8b08c$0$58074$742ec2ed@news.sonic.net>
Source record: 66417

I'm looking for a way to enter two pairs of geographic coordinates (point X and point Y) and have the over-ground distance between them returned.

Any help?

Dave P

4871. Re: Geo coordinates -- didtance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 01:46:11 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Dt2qf.175939$qk4.31863@bgtnsc05-news.ops.worldnet.att.net>
Source record: 66418

Dave Pitzer wrote:
> I'm looking for a way to enter two pairs of geographic coordinates (point X
> and point Y) and have the over-ground distance between them returned.
>
> Any help?
>
> Dave P

The standard formula for the great circle distance is:

d=arccos[sin(lat1)*sin(lat2)+cos(lat1)*cos(lat2)*cos(long1-long2)]

There is no magic here; this is simply spherical geometry and
trigonometry at work.

Of course if you don't care about the great circle distance, the answer
can be anything you wish.

73,
Gene
W4SZ

4872. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 01:54:23 UTC
From: N2EY@AOL.COM
Message-ID: <1135130063.302235.88170@g49g2000cwa.googlegroups.com>
Source record: 66419

Brian Kelly wrote:
> Cecil Moore wrote:
> > Denton wrote:
> > > I picked up a used one last sprng, set it up about 3 ft off the ground in
> > > the back yard...and took it back down within a couple of weeks.
> > > Signals were way down compared to my 450 ohm ladder line fed 80 meter
> > > doublet on all bands.
> >
> > I had the same experience with a 1/4WL 40m vertical. Now I wish
> > I had run some A/B transmitting tests as well as the A/B
> > receiving tests
>
> I thought you did that with N2EY . . ?

We did. From Cecil's QTH in Texas to mine here in suburban Philly I
could hear no
significant difference between the two antennas in A/B tests where I
didn't know
which antenna was being used (just A versus B).

But that's just one data point on one band over one path.

> > which the vertical flunked mainly due to an
> > extremely high noise level.
>
> I did some of that sort of A/B testing between an elevated 1/4 wave 40M
> GP and an 80/75/40M 130 foot end-fed inverted L a number of years ago
> and the GP did not fare well at all. As it happened there wasn't much
> of an electrical noise problem in the neighborhood then so QRN one way
> or the other was not a term in this specific equation.
>
> The vertcal leg of the inverted L was spaced about 20 feet from the
> tower and was base-fed by a remotely controlled L/C tuner out in the
> back yard, a USN surplus gun director selsyn motor cranked a big rotary
> inductor which allowed me to QSY from 40 to 80/ 75. But the process ate
> a minute or two to do which was a pain in the tush during the DX
> contests I was into. Instantaneous band changing in that game matters.
>
> The apex of the L was around 60 feet AGL. The 70 foot "horizontal" run
> sloped down from the apex to about 35 feet AGL. The L worked quite well
> on both bands, I could snipe JAs at will with just an SB-200 on either
> band from here on the east coast when band condx were decent.
>
> I decided that I had to put up some kind of 40M antenna so that I could
> quickly QSY from 80/75 to 40 by simply flipping an antenna selector

> switch which would get me away from the increasingly annoying "twist
> the selsyn 30 turns" routine when band swapping.
>
> So I built a textbook-classic 40M 1/4 wave GP which had a
> self-supporting 35 foot +/- radiator. The base was at 35 feet AGL,
> there were four downward-sloping wire radials. The whole thing perched
> atop the roof of the abode. SWR over the entire band was essentally
> unity.
>
> Turned out to be a complete waste of time, money and effort. For
> whatever reason or reasons there wasn't much difference in received
> signal strength levels beteen the two antennas when I was listening to
> long-haul DX like JAs and VK/ZLs on my end. But when I called them more
> times than not they did not come back to me. I spent a couple intense
> very early morings A/B swapping between the L tuned for 40M and the GP
> QSOing the DX. In 90% of the cases they "heard me much better" when I
> was using the L than they did when I used the GP. I took the GP down
> and good riddance.
>
> I'll leave the theoretical howcums of my experince to those of you who
> are deep into the physics of electromagnetics. For my part another 1/4
> wave HF GP just ain't gonna happen here again elevated with radials or
> ground mounted with gazzilion radials.

I think the differences were two:

First, the ground plane with four radials wasn't all that hot, and the lossy house was in the near field. The L wire was high-Z and its ground wasn't all that important. Plus the ground was high conductivity moist Aldan soil.

Second, the part of the GP with the most current, and therefore doing the most radiating, was the bottom part. I don't know how high the house roof was but it couldn't have been much more than 30-35 feet?

But the L wire on 40 meters was a full wave. High current was halfway up the sloping part, and about halfway up the vertical part.

So you probably had less ground loss and some serious polarization diversity. End result: they heard you better.

>
> . . . half-wave verticals being a whole different ballgame . .
>
> > I'm thinking about putting the
> > vertical back up as a 1/4WL 30m vertical fed at the base with
> > an SGC-230 that I already have. Such an antenna should work
> > pretty well on 40m-10m, at least for transmitting.
>
> Go for it and post your results.
>
Agreed

73 de Jim, N2EY

4873. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 02:01:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bn5hq153491td2gp0pnm9u01bfdus3b54h@4ax.com>
Source record: 66420

On Tue, 20 Dec 2005 22:06:56 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I normally reply, if I reply at all to your idiotic statements, with
>"Phooey".

Ah yes, Punchinello,

As gracious as ever.

> it should be said
Well, you generally fill the gap there:
>that the voltage induced in a circular loop is altogether different
which is redundant to the following:
>and very much smaller from that induced in a straight wire of the same
>length.

Notably you say nothing of how much.

For the sake of novices for whom you have such paternal feelings (but
absolutely no answers) I would offer that the solution in the loop
(that same wire bent over to touch ground) and loaded with 200 Ohms
(not an open) reveals a voltage that need only be multiplied by 20 to
obtain the correct value. Trivial! And what is more, far simpler to
measure across 200 Ohms than an open at 20MHz.

Thus in response to the question:
>On Tue, 20 Dec 2005 14:40:14 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
>wrote:
>>And just how are you going to measure that voltage without getting an
>>opposite voltage in your voltmeter leads.
has been responded to fully, with a realizable design (barring this
folderol of perfect ground) and removing the objection for meter
leads. It takes no more software than the free version of EZNEC
(zipped up, but it works).

>Have a miserable Christmas!
That will be all too true with a visit to and through several of our
nation's airports here soon. ;-(

XOXOXOXOX,
Richard Clark, KB7QHC

4874. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 02:12:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qhefipinecp86@corp.supernews.com>
Source record: 66421

Richard Harrison wrote:
> Reg, G4FGQ wrote:
> "Terman, Kraus, and Balanis and some computer programs are of no help!"
>
> My dictionary defines "field strength" as:
> "3. The strength of radio waves at a distance from the transmitting
> antenna, usually expressed in microvolts-per-meter. This is not the same
> as the strength of a radio signal at the antenna terminals of the
> receiver."
>
> The definition looks OK to me. The reason the signal is not the same as
> the microvolts-per-meter even when the antenna is a 1-meter length of
> wire with just the right slant is because the induced voltage gets
> divided between the antenna and its load (the receiver).
>

No, that's not why. The terminal voltage of an open circuited 1 meter (electrically short) dipole is 1/2 the field strength in volts/meter. The terminal voltage when terminated with a conjugately matched load can be well over a thousand volts (in the theoretical lossless case).

But it's pointless to keep repeating this. Reg keeps asking the same question, and you keep responding with the same incorrect answers. I believe I've gotten through to everyone who really wants to know the answers, so I'll let this be my last repetition.

Roy Lewallen, W7EL

4875. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 02:12:55 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <11qhejvjtj1ak38@corp.supernews.com>
Source record: 66422

"Wes Stewart" <n7ws*@*yahoo.com> wrote in message
news:m4keq1tmlrevv8fm3gih3266obcdh725ba@4ax.com...
> On Thu, 15 Dec 2005 09:02:17 +0000, Paul Johnson <baloo@ursine.ca>
> wrote:
> And after a natural disaster cable TV systems will be working about as
> well as cell phones have.

Only as long as the emergency broadcast system is kept alive. There's no particular reason the funding for it couldn't be shut off/expanded to include cable/switch only to cable/whatever. In fact, one could argue that during a natural disaster cable TV could actually be more reliable in that its infrastructure is somewhat more protected than a huge antenna ever could be. (I seem to recall from Hurricane Katrina that some of the first phone calls getting out -- barring folks with satellite phones -- were VOIP calls over wired Internet connections.)

>>4:3 aspect was a technical limitation that really should have died long
>>before my birth, much less now. Good riddance.
>
> What "technical limitation"? Aspect ratios are arbitrary.

Not true. In the 'early days' of TV, the glass for CRTs couldn't be blown into such arbitrary aspect ratios; hence 4:3 was chosen as a reasonably compromise between producibility and "well, at least it's not square...!" :-) Presumably 16:9 is a closer match to human vision than 4:3, and for viewing a movie it would seem to make sense to try to match that since you're trying to encompass the viewer.

---Joel

4876. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 02:26:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <epehq1dure47rcbv6pslrsp3umb3f9e25u@4ax.com>
Source record: 66423

On Tue, 20 Dec 2005 18:12:55 -0800, "Joel Kolstad"
<JKolstad71HatesSpam@yahoo.com> wrote:

>>>4:3 aspect was a technical limitation that really should have died long
>>>before my birth, much less now. Good riddance.
>>
>> What "technical limitation"? Aspect ratios are arbitrary.
>
>Not true. In the 'early days' of TV, the glass for CRTs couldn't be blown
>into such arbitrary aspect ratios; hence 4:3 was chosen as a reasonably
>compromise between producibility and "well, at least it's not square...!" :-)
>Presumably 16:9 is a closer match to human vision than 4:3, and for viewing a
>movie it would seem to make sense to try to match that since you're trying to
>encompass the viewer.

Hi Joel,

In the early days? I've worked on some of the oldest sets known
(albeit post WWII) that had Round tubes pointing up into a mirror for
viewing - early rear projection ;-)

I also worked on a lot of round tubes that were masked rectangular.
The mask matched the transmitted signal which was, of necessity and
technical law, rectangular. If glass blowing technology dominated the
aspect ratio, we would still be groaning about having to watch through
portholes.

The aspect ratio is called the "Academy Ratio" and it matched the
Hollywood product (hence the Academy as in Academy of Motion Picture
Arts and Sciences, the moniker for the Academy awards -AKA Oscar-
organization). When TV began to dominate the market, Hollywood
ventured into other aspect ratios (which made no more sense than the
first, and cost a gazillion times more to fabricate lenses).

73's
Richard Clark, KB7QHC

4877. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 02:34:12 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <tjfhq1drm5id8cd0lbpivjk4relu482oju@4ax.com>
Source record: 66424

On Sat, 10 Dec 2005 08:06:58 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Tue, 06 Dec 2005 23:28:15 GMT, Owen Duffy <owen@no.where> wrote:
>

>>
>>Don't you have digital television? Best thing since sliced bread.
>>
>>I don't know if you can receive analog television beyond the digital
>>coverage ranges, but you probably wouldn't want to watch it.
>>
>>Digital TV makes weak signals most watchable, DVD quality at weak
>>signals.
>>
>>I use it and I am only 4km from the transmitter, but that is another
>>situation where it works a treat, ghost free pictures close to the
>>tranmitter in the presence of local reflections (hills, water towers
>>etc).
>
>I suppose you have the Coded Orthogonal Frequency Division
>Multiplexing (COFDM) standard there.

Yes.

I saw STBs in the supermarket this morning for A$69 or about US$55.

Owen
--

4878. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 02:41:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doafco$js5$2@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66425

"Richard Fry" <rfry@adams.net> wrote in message
news:43a8aade_2@newsfeed.slurp.net...
> "Reg Edwards" wrote
> > For the very last time I will repeat my question :-
>
> Pray it so...
>
> > "What is the voltage measured between the bottom end of a 1 metre
> > vertical antenna and ground when the field strength is 1 volt per
> > metre."
>
> Of what relevance is this to anyone but (apparently) you? Please
elaborate.
>
> RF
==========

For starters, Have you never heard of field strength measurements?

Have you ever designed the input stage of a radio receiver?

The topic is fundamental to an understanding of e.m. radiation and
reception.

Can YOU answer the simple question? Or are you entirely dependent on
your gospel faith in 'Bibles'.

On this occasion at least, the Bibles are letting dependent people
down.

The immediate relevance to me is that I have a program which has been
reported to have a calculating error. It was reported by a person who
is not dependent on bibles. He stated that the
conventional/traditional calculating method used in my program was
incorrect. I was not entirely convinced so I posed a related question
on this newsgroup to which only one person has replied with a number.
And he was wrong first time.

Other persons who replied, after consulting their bibles, were unable
even to answer the question, either rightly or wrongly. They just
generated more confusion.

The program concerned is GRNDWAV4 which I think, but not absolutely
certain, has now been corrected. Why not download it, input a very few
standard values, and tell me whether or not it provides the correct
answer to receiver power input? You may, of course, prefer not to
commit yourself.

Is that enough elaboration for you?

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4879. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 02:59:28 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <ky3qf.39571$8d.2879@tornado.tampabay.rr.com>
Source record: 66276

<pdrahn@coinet.com> wrote in message
news:1135099145.094973.160920@f14g2000cwb.googlegroups.com...
> You are lucky to have 4 feet. I have 8 inches or less around my house.
> Zero behind the garage.
>
> Is this going to be an antenna or just a tower for an antenna? Is the
> area irrigated/watered for grass? If an antenna, you will need to
> install a bunch of radials on or just under the ground surface. If you
> are trying to ground the tower for lightening protection, I guess I
> would mix a bunch of granular commercial fertilizer in with the soil as
> I packed it around the ground rods. Then lots of water on the area.
>
> Did you also have holes placed for guy wire anchors?
>
> Paul, KD7HB

I believe the aim is to get more conductivity from the soil. That being the
case, I would pour rock salt in the holes.

west

>

4880. 2 or more Ants. needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 03:08:45 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <1H3qf.17566$md.3615@tornado.tampabay.rr.com>
Source record: 66279

I'm ready to buy a Yaesu FT-857D (160-6m) & (2, 440). I been away from Ham Radio for more than 20 years & would like opinions on what would be the absolute best omni-directional antenna(s) to buy, for this rig? All opinions welcomed. Thank you.

west
AF4GC

4881. Re: more stevei lies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 03:10:21 UTC
From: DrDeath <drdeath555usb@nospam.yahoo.com>
Message-ID: <11qhhsrql5700ef@corp.supernews.com>
Source record: 66277
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

"The Magnum" <magnum@NOSPAMmag2781.freeserve.co.uk> wrote in message
news:do9v67$el4$1@news7.svr.pol.co.uk...
> "Amos Keag" <A.K01@comcast.net> wrote in message
> news:DNGdncHNgZZj5zXeRVn-hg@comcast.com...
>> Reg Edwards wrote:
>> > What is the proportion of Black amateur radio licencees to Whites?
>> >
>> > How does it correspond to the same proportion in the population as a
>> > whole?
>> > ==
>> >
>> >
>>
>> I don't believe that information is required on an application.
>> Therefore it should be un-obtainable.
>
> That percentage must be rising now thanks to the M3/CB'ers licence as so
> many Hams class it. Before I would say it was very low as it doesn't
> involve
> shooting people, stealing mugging or raping. Now it takes no effort there
> will be plenty of them using the radios to co-ordinate robberies and
> gangland shootings... yeeee haaaaah good buddy.......
>
> So what's wrong with being racist? Why let your neighbourhood turn into a
> shithole..........
>
>
>
>

Drug dealers already use FRS and scanners for
surveillance.

4882. Re: more stevei lies

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 03:12:07 UTC
From: an Old friend <kb9rqz@amsat.org>
Message-ID: <1135134727.313488.14000@g14g2000cwa.googlegroups.com>
Source record: 66278
Cross-posted to: alt.politics.liberalism,rec.radio.amateur.antenna,uk.radio.amateur,rec.radio.cb,rec.radio.amateur.policy

Reg Edwards wrote:
> "Amos Keag" wrote -
> > Reg Edwards wrote:
> > > What is the proportion of Black amateur radio licencees to Whites?
> > >
> > > How does it correspond to the same proportion in the population as
> a
> > > whole?
> > > ==
> > I don't believe that information is required on an application.
> > Therefore it should be un-obtainable.
> >
> ==
> Indeed it is. But you can always have a guess and think about what it
> means.

in my experence the number of blacks hams is sabout half the population
numbers but YMMV

just for the halibut I have noticed the hispanic hams seem to in line
with population pretty well, asians seem a bit over the popualtion
numbers, and women are way off less in proportion than blacks, Blakc
women hams though seem relitively more numors than to balck males and
white women to white males

those are my experences as i said YMMV
> ---
> Reg.

4883. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 03:43:52 UTC
From: The Eternal Squire <eternalsquire@hotmail.com>
Message-ID: <1135136632.653994.293680@g43g2000cwa.googlegroups.com>
Source record: 66280

yep you are right.... 10m == 30 feet.

The Eternal Squire

4884. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 04:08:44 UTC
From: richardharrison@webtv.net
Message-ID: <3647-43A8D54C-984@storefull-3258.bay.webtv.net>
Source record: 66281

Reg, G4FGQ wrote:
"All I need is a number of volts."

I`ll guess, because Reg asked, not because I know aanything. I`ve now discovered Kraus` effective antenna height which may be related to an Icelandic connection. Reg hasn`t told us everything he knows. One reason we don`t know is because the effective antenna height is related to the antenna`s length in terms of wavelength according to Kraus. One of the examples given by Kraus is a dipole of 1/10 of a wavelength. Kraus tells us the effective height of this length gives a factor of 0.5. According to Equation (1) on page 30 of the 3rd edition of "Antennas", Voltage at the terminals of the antenna = effective height X field strength.

If we guess that a short whip might have the same effective height as a short dipole, then with a 1 volt per meter field strength X 0.5 as an effective height factor, their product would be 0.5 volts. I`ll assume rms because that`s the convention for expression.

I don`t have much confidence in the number because I think you must determine the effective height experimentally. Terman says on page 991 of his 1943 "Radio Enginneers` Handbook: "If an antenna other than a loop is used, the effective height must be determined experimentally. Maybe someone has worked this out since 1943.

Best regards, Richard Harrison, KB5WZI

4885. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 05:03:41 UTC
From: hayseed <hayseed@bogus.net>
Message-ID: <43A8E22D.6070208@bogus.net>
Source record: 66282

I saw a group of reps from MITRE solve a radar grounding issue by tying the ground line to a 4'X8' copper plate and burying the plate in a 6' deep pit filled with copper sulfate crystals. Threw in water, waited and, viola, decent ground in granite rock mountain top.

-Bob

4886. VHF/UHF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 05:18:42 UTC
From: crjunk@earthlink.net
Message-ID: <1135142322.762859.121600@g44g2000cwa.googlegroups.com>
Source record: 66283

Hi Everyone,

I'm not sure if this is the correct newsgroup for this type of question - sorry if I've posted in the wrong newsgroup. I want to ditch my cable and go with an antenna. I'm trying to figure out what would be the best type for my location.

All the channels thatI want to pick up are less than or equal to 25 miles from my home, except for one. The one that is the greatest distance away, FOX, is 30 miles away from my home.

All of the channels that are less than or equal to 25 miles are between 12 o'clock and 1 o'clock. They consist of a mixture of VHF and UHF channels. FOX (30 miles away) is at my 2 o'clock and is a UHF channel.

Antennaweb.org says I need a large directional with pre-amp antenna in order to pick up FOX, but I can't get something that big to put on the side of my house. My wife will scream bloody murder if I did that. I have no obstructions of the sky in the directions that the antenna will have to point.

What type of antenna would be best for my circumstance? I would prefer something that is small and not very noticeable (maybe something that could pass for a DirecTV dish). Also, I would prefer to have it point in a fixed direction so that I do not have to turn it in order to view different channels. I'm planning on getting a HDTV in the near future. Do I need a special type of antenna in order to view a TV program in HD or will any antenna work?

Thanks,
CR Junk

4887. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 06:31:44 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <kF6qf.4493$mj1.388@newsread3.news.pas.earthlink.net>
Source record: 66284

K7ITM wrote:

> There are several possible reasons for being interested in standing
> waves (on transmission lines). Some are valid, some are not, and
> you'll even get plenty of, um, discussion about what's valid and what
> isn't.
>
> If your goal is to get maximum power delivered to a load, then it's
> good to minimize standing waves on the line delivering power to that
> load, because a line delivering a particular amount of power to a load
> will have greater power lost in the line with greater standing waves.
> If the line is being used near its maximum power or voltage rating,
> standing waves are a concern because for a given power delivered to the
> load, the rms current at current nodes and the peak voltage at voltage
> nodes both increase with increased standing waves. And a high standing
> wave ratio on a line which is long compared with a wavelength suggests
> that the input impedance to the line will vary rapidly with frequency,
> whereas a line with low standing wave ratio will present a relatively
> constant impedance to the driving source, assuming the load is
> reasonably "flat" with frequency.
>
> As an example of this last point, a 30 meter (~100 foot) 50 ohm line
> with 0.8 velocity factor and very low loss, delivering power to a 50
> ohm load at 450MHz, will present a 50 ohm load to the driving source.
> But delivering power to a 200 ohm load, the source will "see" almost
> 200 ohms at frequencies where the line is an integer number of
> electrical half-waves long, and it will "see" just over 12.5 ohms
> midway between those frequencies. You get 200 ohms at 440MHz, 12.5
> ohms at 442MHz--and reactive in between.
>
> It's possible to use stubs and series line sections to effect an
> impedance match between a load and a line. For example, the right
> length and impedance series section will give you a match at one
> particular frequency, at least, and multiple sections can give you a
> "perfect" match at multiple frequencies, with (perhaps) quite
> acceptable match over a range of frequencies.
>
> There are lists of analogs among electrical, mechanical, acoustic, and
> other media. "electrical hydraulic impedance analog" in a Google
> search will give you many hits.
>
> Cheers,
> Tom
>

Thanks for your reply. I have a few questions. When you say "standing waves", I take it that one can have more than one on the line?

I follow your example, but I may come back to it once I've done the calcs.

How does one know they want to improve their impedance match? Why doesn't there seem to be a need for this (probably through a balun) on a standard AM radio with a 1/2 wave line antenna or even some ferrite coil? Is there some auto-balun that works this all out?

Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

"He who laughs, lasts." -- Mary Pettibone Poole
--

Web Page: <home.earthlink.net/~mtnviews>

4888. Re: VHF/UHF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 06:42:59 UTC
From: dplatt@radagast.org
Message-ID: <11qhubj9sg5tm24@corp.supernews.com>
Source record: 66285

>I'm not sure if this is the correct newsgroup for this type of question
>- sorry if I've posted in the wrong newsgroup. I want to ditch my cable
>and go with an antenna. I'm trying to figure out what would be the best
>type for my location.
>
>All the channels thatI want to pick up are less than or equal to 25
>miles from my home, except for one. The one that is the greatest
>distance away, FOX, is 30 miles away from my home.
>
>All of the channels that are less than or equal to 25 miles are between
>12 o'clock and 1 o'clock. They consist of a mixture of VHF and UHF
>channels. FOX (30 miles away) is at my 2 o'clock and is a UHF channel.
>
>Antennaweb.org says I need a large directional with pre-amp antenna in
>order to pick up FOX, but I can't get something that big to put on the
>side of my house. My wife will scream bloody murder if I did that. I
>have no obstructions of the sky in the directions that the antenna will
>have to point.
>
>What type of antenna would be best for my circumstance? I would prefer
>something that is small and not very noticeable (maybe something that
>could pass for a DirecTV dish). Also, I would prefer to have it point
>in a fixed direction so that I do not have to turn it in order to view
>different channels. I'm planning on getting a HDTV in the near future.
>Do I need a special type of antenna in order to view a TV program in HD
>or will any antenna work?

I'd say that AntennaWeb is giving you pretty decent advice. It's
perhaps a bit conservative but not excessively so.

I'm operating under similar circumstances - I'm near the south of the
San Francisco peninsula about 35-40 miles away from the transmitters
in San Francisco. We get a good, clean picture using a "medium
fringe" UHF/VHF antenna (log-periodic plus corner reflector), mounted
on a 18' mast on the roof (antenna height above ground is somewhere
around 30'). We do have an amplifier for our indoor signal
distribution, but could probably get away without one if we were only
driving one or two TVs/tuners.

We don't need to use the rotator, since all but one of the stations
are north of us. The one exception is a San Jose station, which is
right "off the back" of the main antenna. We *would* need to use the
rotator, but I built a separate single-channel Yagi antenna and
pointed it at San Jose and used a combiner.

Most people around here who have roof antennas, have ones which are in roughly the same ballpark as ours... some higher, some not quite so high. The height helps a lot - an antenna down at roof level is going to "see" its horizon only about half as far away as an antenna with an extra 15' of height, and that's enough to make the difference between a clean ghost-free signal and one that's pretty noisy or ghosty.

Most TV antennas have a relatively broad forward beamwidth. Your "noon to 2 o'clock" antenna pattern is about 60 degrees, which is probably going to be workable for a standard medium-fringe log-periodic antenna design if you've got the antenna up high enough.

If you don't have enough height, then you're going to have a substantially weaker signal hitting the antenna, which would mean you'd need more antenna gain, which means a longer and more obvious antenna and a narrower beam-width, which might require a rotator.

A small, roof-mounted, non-obvious antenna which might pass itself off as a satellite dish is likely to be nearly omnidirectional, having little or no gain, and in your situation it won't "get a good look" at the transmitters (they may be over the horizon), and you won't get a good signal.

The requirements for digital TV (hi-def or standard-def) are not all that different from the requirements for NTSC analog. If you have a non-snowy, non-ghosty analog TV picture, you'll likely get a good digital-TV signal from any digital TV transmitter operating at full power. However, since most DTV transmitters today seem to be running at reduced power to avoid interference with nearby analog-TV frequencies, you can't necessarily count on getting a good digital signal lock. If your analog TV signal is noisy or ghosty, receiving digital TV properly is likely to be a problem.

Unfortunately, there's no real substitute for a good antenna, up on a mast, clear of trees and buildings and other obstructions, pointed in the correct direction. Any compromise you make from that, will probably compromise the signal to some extent.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

4889. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 07:01:17 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43a8eae3@fidonet.org>
Source record: 66286

"Richard Harrison" bravely wrote to "All" (20 Dec 05 09:38:02)
--- on the heady topic of "Re: Antenna reception theory"

RH> From: richardharrison@webtv.net (Richard Harrison)
RH> Xref: core-easynews rec.radio.amateur.antenna:221565

RH> Reg, G4FGQ wrote:
RH> "Terman, Kraus, and Balanis and some computer programs are of no
RH> help!"
RH> My dictionary defines "field strength" as:
RH> "3. The strength of radio waves at a distance from the transmitting
RH> antenna, usually expressed in microvolts-per-meter. This is not the
RH> same as the strength of a radio signal at the antenna terminals of the
RH> receiver."

RH> The definition looks OK to me. The reason the signal is not the same
RH> as the microvolts-per-meter even when the antenna is a 1-meter length
RH> of wire with just the right slant is because the induced voltage gets
RH> divided between the antenna and its load (the receiver).

Not only that, but also this: the antenna rebroadcasts half of the
intercepted energy.

A*s*i*m*o*v

4890. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 07:18:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qi0ecphael065@corp.supernews.com>
Source record: 66287

Asimov wrote:
> . . .
> RH> The definition looks OK to me. The reason the signal is not the same
> RH> as the microvolts-per-meter even when the antenna is a 1-meter length
> RH> of wire with just the right slant is because the induced voltage gets
> RH> divided between the antenna and its load (the receiver).
>
>
> Not only that, but also this: the antenna rebroadcasts half of the
> intercepted energy.

But voltage isn't energy. Or power.

Roy Lewallen, W7EL

4891. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 08:04:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4l1iq1h3c85qklsplq3i8d3mndk6r3f7m6@4ax.com>
Source record: 66288

On Tue, 20 Dec 2005 22:08:44 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>Reg, G4FGQ wrote:
>"All I need is a number of volts."

Hi Richard,

You forgot to quote Reggie's promise this would be the last time he asked....

>I don`t have much confidence in the number because I think you must
>determine the effective height experimentally. Terman says on page 991
>of his 1943 "Radio Enginneers` Handbook: "If an antenna other than a
>loop is used, the effective height must be determined experimentally.
>Maybe someone has worked this out since 1943.

Well, in fact it had been known for at least 3 or 4 decades before that. From the "Standard Handbook for Electrical Engineers," 1907-1917:

"284. Receiving Antenna. ... When an electric field of intensity E is produced on the antenna, there is an electromotive force in the antenna equal to Eh2, where h2 is the height of the receiving antenna from the earth to the centre of capacity."

As to the term "centre of capacity," this has a variable meaning according to the structure (top hats were common back then for obvious reason of the predominance of LF work) and ground conditions:

"In land stations the actual effective height is from 50 to 90% of the measured height. That the height may be made as high as possible, it is desirable to increase the capacity of the upper portion...."

73's
Richard Clark, KB7QHC

4892. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 08:31:45 UTC
From: nm5k@wt.net
Message-ID: <1135153905.681013.322420@g47g2000cwa.googlegroups.com>
Source record: 66289

n...@wt.net wrote:

Hi Mark. What's your/any definition of "par"in this context? What other
40M antenna did you A/B test against your GP on the air?

Directly, my 40m dipole at appx the same height as the base of the GP.
I also compared with the earlier ground mount with 32 radials, but
not directly, as the same radiator was used on both antennas.
When comparing the dipole and the ground mount vertical at 1500
miles, they were almost always about the same. Tested many times.
In comparison, the GP would always beat the dipole by 2 s units
at 1500 miles. Again, tested many times over a period of time.

> But...My conductivity rating in
> this area is bordering on the "30" range being I'm not too far from the
> coast.

. . maybe someday I really will download that map . . Not that I can do
anything about what it tells me about the ground condx in my particular
neighborhood .
.....

It also occurs to me that the ground off in the far field would effect
also. Being most all of this area is rated pretty well, that could be
a factor as far as low angle dx stuff... ??

> I know for sure Cecil would need more radials than mine for
> the same performance, as his was half the height and his ground
> rating is lower. .
> My hunch is if you had 8 radials on the GP, it probably would have
> done better.

Maybe, maybe not but realistic modeling elevated HF GPs would at least
provide some hints. Maybe.

Dunno. I've modeled mine, and for it to mimic real life at this qth, I
always
had to boost the ground quality in the program.

>From what I've seen, heard and read over the years there's a whole

bunch of smoke, mirrors and mythology wrapped around the effects of
radials as they relate to current-fed HF verticals. Reg Edwards
"endfeed.exe ' ditty looks like it debunks a bunch of the mythology. In
any event and with all due respect I'm not about to get into
nit-picking any of it.

Dunno. Haven't seen that yet... But I'm a pretty firm believer in what I've seen written and graphed as far as the number of radials needed to equal a certain performance of a ground mount. The lower in WL, the more you need, of course.

The situation I described was a sort of very subjective A/B "shootout" between my two 40M antennas as transmitting antennas and the so-far strange and unexplained results I got and I seriously doubt that my results would have been noticeably different if the GP had four more radials. My voltage-fed inverted L seriously and consistently outperformed the GP on long-haul contacts as a *transmitting* antenna to the tune of at least one s-unit, sometimes more particulary into the north Pacific, at the far end. But the two antennas seemed even-up when *receiving* on my end.

This is the weird part to me... I've rarely seen antennas not act reciprical as far as transmit/receive... Thats kinda unusual...

That's the issue Cecil brought up. The only
"radials" I had under the L was a three foot long #14 wire which ran from the cold side of the tuner to a copper-plated eight foot steel ground rod driven a few feet into the ground. It BOOMED. The GP did not.

Hummm....Still the only rational explanation I can think of is the GP needed more radials... Can't really think of any other reason, unless maybe the general takeoff angle was a bit higher with the GP, and again, that would tend to point to mediocre ground at , or in the far field of the antenna. Can't really think of anything else, unless maybe the radiator was a poor conductor, etc...Kinda doubt that though...

> I've never tried 1/2 waves on the low bands,
> except for extended inv-L's...I have run them 20m up though.
> Work well there.

Seems like they work nicely. So far my only measurable current-era experience with true ground-mounted half-wave "dipoles" came about when I operated portable for an extended period a few years ago and strung a coax-fed 20M dipole up into a big maple tree with the bottom end of it a foot or so above the ground. Lousy location, halfway down a hill on one side of a mini-valley but "I worked every station I called". Heh.
.
All of my 1/2 wave verticals have been base fed so far. I usually use the "gamma loop" type of feed. But...All those have been elevated, not ground mount.

Anyway I'm on my way into a new location. Tiny property which will host several voltage-fed HF verticals because of their minimum-size footprints. Along with the verticals the property also hosts a rather swampy bamboo farm. Big suckers too, maybe I can raise my own quad spreaders. What do you 'spose the ground resitivity and permitivity might be? Reg and Nec-Win- Plus want to know . . .

Dunno, but the conductivity map might give a general idea. You can d/l those things somewhere. But...Forgot where I got them.. I've got some I d/led that are in full color, and have separate charts for the various areas of the country. But there is also a little version in the

ARRL antenna handbook I think.. Texas is kinda weird as far as ground. It's real good at the coast "30", but drops to 15, or even lower as you

venture north up into central-east Texas. But there is a hot zone that runs up through Dallas, and father up into the midwest, that is rated at 30. Cecil is in the poorer "middle" zone between the two good parts.. :(It's quite possible my GP did well cuz of the decent ground quality both at the antenna, and farther away.
You should have seen my mobile on 40m at the beach a few months ago. I was parked right on the water nearly, and using my maximum length 14 ft antenna, with the loading coil at 8 ft up the whip. "antenna base at appx 64 inches from the ground, on the cab of the truck" Absolutely was kickin butt...I was keeping up with home stations running KW amps when yik yakking with various stations across the country. Was consistantly one of the louder stations to whoever on that freq.. Some were in FLA, some out west, etc.. And I was just running 90-100w from my 706. I blame it all on the salty ground and seawater...:) If that 14 ft antenna did that, just imagine what my full size GP "should" have done at that location. Dunno...I think it's all in the ground quality and radials.. Can't really explain it any other way.
MK

4893. APRS users

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 09:35:38 UTC
From: "hxc98@yahoo.com" <hxc98@yahoo.com>
Message-ID: <1135157738.375546.219250@g47g2000cwa.googlegroups.com>
Source record: 66290

If you use MapPoint with either APRSPoint or UI-View, you can update MapPoint 2004 with the latest map data very inexpensively. All you need is a copy of Streets 2006 or AutoRoute 2006. Go to http://www.aprspoint.com/ for step by step instructions.

4894. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 10:32:42 UTC
From: nm5k@wt.net
Message-ID: <1135161162.152614.219660@g44g2000cwa.googlegroups.com>
Source record: 66291

The aspect ratio is called the "Academy Ratio" and it matched the
Hollywood product (hence the Academy as in Academy of Motion Picture
Arts and Sciences,.....

Lately, I've been using my puter to watch TV more than my actual
TV. Better pix, and I can putz around on the puter while I watch
all the talking heads, etc... :/
I'm using a ATI 9800 AIW card that has a phillips tuner in it.
It will shift the view for many aspect ratios. The usual 4:3,
but also 16:9, 1.85:1 and 2.35:1 in letterbox or widescreen.
Which do I usually use? The standard 4:3... :/ I generally prefer
it, and if a movie comes on in letterbox, it will show that way
even if I stay 4:3. I run my desktop at 1600x1200 res on a 21
inch monitor. The TV is much smoother than any regular TV
as you don't really see the pixels too much if you are up close.
A regular TV will look like a maze of dots if you hover up close.
This thing, you can hardly notice the pixels at all . If you sit back,
with it full screen, it's like a baby movie screen. With the 1600
desktop, if I window the TV as "large", it still only covers slightly
less than 1/4 of the screen. :/ At that setting, it's nearly like a
moving photograph. :) Kinda like psuedo HDTV...Not quite the
same, but it's semi close as far as perceived quality.
This TV/vid card is nifty cuz it also lets me record video.
So my puter is like a digi VCR. If I see something , say like
that sea plane blowing up and crashing into the water, :(, I can reach
over and record it...Yep. I did manage to record that actual crash
video..:(You can see the explosion, and the fireball definitely
following the detached wing as it fell to the water. The rest
of the plane just zipped on down to the water.. It all happened
so fast, there was no chance for them to try anything.
Kinda looked like the prop sheared off into the wing..??
I guess they will know after they look at it.
MK

4895. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 13:22:58 UTC
From: richardharrison@webtv.net
Message-ID: <27216-43A95732-40@storefull-3253.bay.webtv.net>
Source record: 66293

Richard Clark, KB7QHC wrote:
"In land stations the actual effective height is from 50 to 90% of the measured height."

If the effective height is 50%, volts at the antenna terminals are no more than 50% numericcally of the volts per meter in the field strength when all else is optimum. This could account for Reg`s 2 to 1 discrepancy. I wonder what the speculations of Reg and his Icelandic correspondent are? Do they have a formula to predict effective height? Does Roy have such a formula? It`s a factor which won`t go away, even when ignored..

Best regards, Richard Harrison, KB5WZI

4896. Re: Geo coordinates -- didtance

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 13:23:16 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <43a95747$0$58051$742ec2ed@news.sonic.net>
Source record: 66292

Gene:

Thanks. And for those who wish to enter the coordinates of two points and have the distance returned (my original request), this is a Web site that does the caluculation for you:

http://www.indo.com/distance/

Dave P.

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message news:Dt2qf.175939$qk4.31863@bgtnsc05-news.ops.worldnet.att.net...
> Dave Pitzer wrote:
> > I'm looking for a way to enter two pairs of geographic coordinates (point X
> > and point Y) and have the over-ground distance between them returned.
> >
> > Any help?
> >
> > Dave P
>
> The standard formula for the great circle distance is:
>
> d=arccos[sin(lat1)*sin(lat2)+cos(lat1)*cos(lat2)*cos(long1-long2)]
>
> There is no magic here; this is simply spherical geometry and
> trigonometry at work.
>
> Of course if you don't care about the great circle distance, the answer
> can be anything you wish.
>
> 73,
> Gene
> W4SZ

4897. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 15:13:22 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <meriq1hmgjempu7p19evrfdqhjci4j7fif@4ax.com>
Source record: 66294

On Tue, 20 Dec 2005 18:12:55 -0800, "Joel Kolstad"
<JKolstad71HatesSpam@yahoo.com> wrote:

>"Wes Stewart" <n7ws*@*yahoo.com> wrote in message
>news:m4keq1tmlrevv8fm3gih3266obcdh725ba@4ax.com...
>> On Thu, 15 Dec 2005 09:02:17 +0000, Paul Johnson <baloo@ursine.ca>
>> wrote:
>> And after a natural disaster cable TV systems will be working about as
>> well as cell phones have.
>
>Only as long as the emergency broadcast system is kept alive.

EBS is -not- necessary for local stations to stay on the air using
emergency power with small crews providing emergency information to
local residents

http://www.tvtechnology.com/features/news/n_hurricane_katrina.shtml

> There's no
>particular reason the funding for it couldn't be shut off/expanded to include
>cable/switch only to cable/whatever. In fact, one could argue that during a
>natural disaster cable TV could actually be more reliable in that its
>infrastructure is somewhat more protected than a huge antenna ever could be.
>(I seem to recall from Hurricane Katrina that some of the first phone calls
>getting out -- barring folks with satellite phones -- were VOIP calls over
>wired Internet connections.)
>
>>>4:3 aspect was a technical limitation that really should have died long
>>>before my birth, much less now. Good riddance.
>>
>> What "technical limitation"? Aspect ratios are arbitrary.
>
>Not true. In the 'early days' of TV, the glass for CRTs couldn't be blown
>into such arbitrary aspect ratios; hence 4:3 was chosen as a reasonably
>compromise between producibility and "well, at least it's not square...!" :-)
>Presumably 16:9 is a closer match to human vision than 4:3, and for viewing a
>movie it would seem to make sense to try to match that since you're trying to
>encompass the viewer.

Richard Clark has answered this very nicely.

However, I restate my case, aspect ratios are arbitrary. Once again a
(compromise) "standard" is being set by what Hollywood is using. See:

http://www.dvdaust.com/aspect.htm

4898. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 15:17:50 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ymeqf.37302$q%.4353@newssvr12.news.prodigy.com>
Source record: 66295

W. Watson wrote:
> Thanks for your reply. I have a few questions. When you say "standing
> waves", I take it that one can have more than one on the line?

Standing waves are created by two coherent traveling waves moving
in opposite directions in a transmission line. In a conventional
system of source, transmission line, and load, one of the traveling
waves moves from the source toward the load and is called the forward
wave. The other traveling wave moves from the load toward the source
as a reverse or reflected wave. The reflected wave is usually the
result of a load being mismatched to a transmission line. If no
mismatch exists, no standing waves are created and the system is
considered to be "flat", i.e. one forward traveling wave.

> How does one know they want to improve their impedance match?

For a transmitted signal, we establish a Z0-match to our transmitter
often at the input of an antenna tuner. When reflected energy is
eliminated on the coax between the tuner and transmitter, we know
we have a Z0-match by the SWR meter reading of 1:1. We also use our
antenna tuners to tune for maximum received signal on our S-meters.
At the Z0-match point, maximum available energy is transferred.

If you know the input impedance to a receiver, you can match your
antenna system to it to achieve maximum available energy transfer
from the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

4899. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 15:19:51 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <roeqf.37303$q%.13157@newssvr12.news.prodigy.com>
Source record: 66296

Roy Lewallen wrote:
> But voltage isn't energy. Or power.

True, but voltage cannot exist without energy.
--
73, Cecil http://www.qsl.net/w5dxp

4900. antenna 'measurements' - can of worms

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 15:20:24 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <f4ydnVsRad8n7zTenZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 66297

I have been trying to understand the characteristics and anomalies in a short loaded dipole mounted in a permanent location for some time. The antenna is a 'large' screwdriver design, capable of over a KW. Models predict a low feed resistance for this antenna, yet shack SWR readings are better then 1.1. A feed resistance of 20 Ohms or less should not result in that low of an SWR.

In pursuing this I purchased, repaired, and calibrated an HP 8405a Vector Voltmeter. This is an amazing instrument. It takes a carefully setup, however it is very sensitive. By tuning the antenna the 8405a showed two zero phase nulls very close together at 3970 KHz. One has a low SWR, the other has an SWR over 3.

The next step is to actually measure the antenna input resistance at this second higher resonance point. I then plan to wind a custom balun to match the antenna feedpoint to 50 Ohms. This should improve the performance by close to the balun ratio.

As an observation this is an example where an antenna being operated with low SWR may not optimum. I will also figure out what is happening to cause the low SWR at the first resonance point. That is still a mystery.

Dan - kb0qil

4901. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 15:28:12 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43A9748C.9050808@comcast.net>
Source record: 66298

Be carefully, that is not exactly true. Voltage cannot be created without energy, it is a force. However once it is 'in place' it requires no energy to sustain. (Given the freshman physics caveats of frictionless pullies, massless ropes, etc.)

That said in the situation at hand of an AC voltage being induced by an EM field you are correct. The energy required to produce a voltage is a function of the impedance.

- Dan

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> But voltage isn't energy. Or power.
>
>
> True, but voltage cannot exist without energy.

4902. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 15:47:38 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <uOeqf.326396$zb5.6332@bgtnsc04-news.ops.worldnet.att.net>
Source record: 66299

dansawyeror wrote:
> Be carefully, that is not exactly true. Voltage cannot be created
> without energy, it is a force.

Dan,

Stop now, before you further embarrass yourself.

73,
Gene
W4SZ

4903. Re: 2 or more Ants. needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 16:03:13 UTC
From: Michael Coslo <mjc5@enoughalready.psu.edu>
Message-ID: <dobuc1$1i52$1@f04n12.cac.psu.edu>
Source record: 66300

west wrote:
> I'm ready to buy a Yaesu FT-857D (160-6m) & (2, 440). I been away from Ham
> Radio for more than 20 years & would like opinions on what would be the
> absolute best omni-directional antenna(s) to buy, for this rig? All opinions
> welcomed. Thank you.

Ain't no such beast!

Anyhow, if you are looking for omni-directional, I guess you are looking at a vertical antenna. Of course it is hard to call most verticals "absolute best". If I had to have only one antenna, it would be a dipole

What are you planning on doing, how much land do you have, and are you under any restrictions? And are you going to buy or make?

- 73 de Mike KB3EIA -

4904. Sloper Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 16:26:15 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <NoCdndMnML-CHzTeRVn-pQ@comcast.com>
Source record: 66301

Hello:

Have the following questions regarding the typical Sloper antenna to be used from
30 MHz on down to the broadcast bands. Listening only.

Would be mounted outside (high end at the house)

a. Is the most sensitive direction along the axis, or perpendicular to ?

b. If along the wire axis is most sensitive, Is there a meaningful difference in sensitivity for signals originating in the direction of the low end (low point being closest to signal origination, is probably the best way I have of delineating the direction)), or vice-versa ?

Is the answer freq. dependent ?

Thanks,
Bob

4905. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 16:26:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <anfqf.35584$dO2.19554@newssvr29.news.prodigy.net>
Source record: 66302

dansawyeror wrote:
> Be careful, that is not exactly true. Voltage cannot be created
> without energy, it is a force. However once it is 'in place' it requires
> no energy to sustain.

A voltage cannot be sustained without energy. The
joule of energy used to create a voltage on a capacitor
is stored in the capacitor until something changes.
--
73, Cecil http://www.qsl.net/w5dxp

4906. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 17:16:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <do1jq159cppddp02h5o0tpo159nvnd4kta@4ax.com>
Source record: 66303

On Wed, 21 Dec 2005 07:22:58 -0600, richardharrison@webtv.net (Richard Harrison) wrote:
>Does Roy have such a formula? It`s a factor which won`t go away, even >when ignored..

Hi Richard,

For the NIST half wave field antenna:

Leff = (wl / pi) ï¿½ tan (pi ï¿½ len / 2 ï¿½ pi)

where:

len = (wl / 2) ï¿½ [1 - (.2257 / (ln(wl / d) -1))]
d = dipole rod diameter, meters

Otherwise, for very short antennas it appears it would be the area under the curve of the current distribution for the vertical element. You will undoubtedly run across the formula above, or a variant, in your copy of Kraus.

73's
Richard Clark, KB7QHC

4907. Re: antenna 'measurements' - can of worms

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 17:25:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qs3jq1h9u3vjkhjeudqgk0nvee4p3tid4n@4ax.com>
Source record: 66304

On Wed, 21 Dec 2005 07:20:24 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Models predict a low feed
>resistance for this antenna, yet shack SWR readings are better then 1.1. A feed
>resistance of 20 Ohms or less should not result in that low of an SWR.

Hi Dan,

Did you include the 20 - 40 Ohms of Earth/Ohmic Loss in your Model?

73's
Richard Clark, KB7QHC

4908. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 17:46:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a74jq114tksnho3o88g1krjc2v7jisnflr@4ax.com>
Source record: 66305

On 21 Dec 2005 02:32:42 -0800, nm5k@wt.net wrote:

>Lately, I've been using my puter to watch TV more than my actual
>TV. Better pix, and I can putz around on the puter while I watch
>all the talking heads, etc... :/

Hi Mark,

I'm a movie buff (one of my degrees) and I use a DLP projector to get a 72" 4:3 display. Last night I watched Ralph Meeker portray Mike Hammer in "Kiss Me Deadly" in glorious Black and White. The performance of Texas Instruments' digital mirror array is summed up by one of the characters, Nick, in that movie with
"Va Va Voom - POW!!!!"

2000:1 contrast ratio (my LCD monitor here only runs 800:1) and 2000 Lumens. - Oh, and cheap too compared to the field for that size (I could make it bigger, but there's only so much wall).

Got two of them. One is for presentations on the road - it cremates the dim LCD projectors others use.

73's
Richard Clark, KB7QHC

4909. More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 18:22:46 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndqj7bm.2u6u.bit-bucket@shell.config.com>
Source record: 66306

http://biz.yahoo.com/bizj/051221/1205323.html?.v=4
<quote>
Under the deal, Current will design, build and operate the "smart grid,"
which will cover the majority of the TXU Electric Delivery service area
-- about 2 million homes and businesses in Dallas-Fort Worth and other
communities in Texas.
</quote>

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

4910. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 18:32:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jd5jq1dg5dtbte34kap4j75l9luppj9obp@4ax.com>
Source record: 66307

On Tue, 20 Dec 2005 18:26:08 -0800, Richard Clark <kb7qhc@comcast.net>
wrote:

> When TV began to dominate the market, Hollywood
>ventured into other aspect ratios (which made no more sense than the
>first, and cost a gazillion times more to fabricate lenses).

Hi All,

To further illustrate the migration through the various aspect ratios, the Academy ratio was simply that of the standard 35mm film exposure. When the film is held vertically, you can see a succession of exposed images in the correct (normal to viewing) way. The image diagonal is roughly 50mm, and this is considered a "normal" lens size (by which multiples are called either telephoto 2X, 3X, or wide 0.7X, or very wide angle 0.56X). There was also the 70mm Hollywood product which was simply a double sized strip of film (first offered in the 1930 production of King Vidor's "Billy the Kid"). It was still in the standard Academy ratio.

The Academy ratio of 4:3 is usually normalized to 1.33:1 for comparison to other ratios.

When the wider (but not taller) formats were offered, things got really weird. Cinerama needed three cameras (and three projectors) to lace together the complete image of roughly 2.6:1. Super Panavision requires only one projector for this ratio.

Cinemascope replaced Cinerama with a 2.66:1 ratio, but only lasted to 1967. It accomplished this on the standard 35mm film by squeezing the image to fit the wide the of the film (this required Anamorphic lenses for exposing and projection).

With all the processes out there, I've forgotten the one that twisted the image 90 degrees to fit it on to the film strip in its wide format.

Panavision had a blighted start and wandered the field from 2.75:1 to 2.2:1. In fact when we come to the digital formats, Panavision only offered one as recently as 1999 - and, of course, the lens prices went through the stratosphere.

When you think of it, the Academy ratio still rules the digital photography marketplace. How many 2.66:1 Kodaks have you seen? Anyone find a 2.75:1 Nikon? Maybe.

73's
Richard Clark, KB7QHC, and projectionist

4911. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 18:41:04 UTC
From: gsm@mendelson.com
Message-ID: <slrndqj8aq.lac.gsm@cable.mendelson.com>
Source record: 66310

Allodoxaphobia wrote:

> Under the deal, Current will design, build and operate the "smart grid,"
> which will cover the majority of the TXU Electric Delivery service area
> -- about 2 million homes and businesses in Dallas-Fort Worth and other
> communities in Texas.

All because you refused to boycott Google.....

Geoff.

--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (07)-7424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
You should have boycotted Google while you could, now Google supported
BPL is in action. Time is running out on worldwide radio communication.

4912. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 18:44:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f68jq15so8167nv3dmvaqp9jbj3vnd6kp5@4ax.com>
Source record: 66308

On 21 Dec 2005 18:22:46 GMT, Allodoxaphobia <bit-bucket@config.com>
wrote:

Hi Jonesy,

Did you just move to Pueblo from Gunnison? Gunnison is such a nice
town. Last time I was in Pueblo was during High School in the 60s. As
we used to say about Tijuana when I was in the Navy: didn't lose
anything there, so there was no reason to go back. Of course,
Colorado Springs has tripled in size since then, and to no positive
gain as far as I can tell.

73's
Richard Clark, KB7QHC

4913. Re: Sloper Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 18:47:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doc7vndhf1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66309

For practical receiving purposes, a sloping wire, in the midst of buildings, can be considered to be omi-directional, even isotropic. Any variations in directivity, in either the vertical or horizontal planes, although they exist, are not measurable or noticeable. The random effect of the presence of a nearby building or buildings is greater than the direction in which the wire may or may not slope.

Sensitivity is frequency dependent. It falls of rapidly when the length of the antenna is less than 1/6th wavelength at the lowest frequency of interest.

Of at least as great importance is the grounding system. With ordinary garden soil you will need at least 5 or 6 shallow buried wires under the antenna, radiating from a common point in random directions. Ground wire length need be no longer than 1/12th wavelengths at the lowest frequency of interest. Lengths and numbers are very non-critical.

A sloping wire or inverted-L is the best general-purpose antenna you can get. Just erect something, not forgetting the ground.

Reg, G4FGQ.

4914. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 19:15:09 UTC
From: nm5k@wt.net
Message-ID: <1135192508.959923.37690@g47g2000cwa.googlegroups.com>
Source record: 66311

Time is running out on worldwide radio communication. ...

I dunno if it's quite that dire, but it is disturbing fer sure...
But I have a secret weapon in my arsonal if they decide
to move in here. My yagi, and my henry amp. :/
If they ever put me off the air, I should be able to put
them off the air right back... I'll just set the beam heading
to the offending power line, and fire up the ole food browner,
and call cq on a dead band for about 3 hourz. :)
If they leak that bad to me, I should be able to recipricate
I would think.
I'm such a radio heathen... :(
MK

4915. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 20:18:05 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <j4djq1ha4lam2okodvi0uc5g0fjqkk5bg3@4ax.com>
Source record: 66312

On Tue, 20 Dec 2005 03:41:41 GMT, "W. Watson"
<wolf_tracks@invalid.com> wrote:

I'm trying to make
>some sense out of why the emphasis of standing waves.

Here is the short version:
A matched transmission line behaves like the theory books say it does. The rated power from the transmitter goes through the transmission line with the lowest possible loss to the antenna where it is radiated just like the book says.

A mismatched transmission just MIGHT work OK. If there is any possibility of generating interference, especially TVI, it will. The currents and voltages on a mismatched line are extreme... There MIGHT even be some sparks. Power loss will be at its worst for a given line. RF finds its way every where. Getting zapped once in a while eventually grows old to everyone. I remember the good old days when desk mikes were the only way to go. If you got too close, you got an RF zap on your lip. Solid state rigs don't tolerate a high SWR. They either protect themselves by reducing power or they require a lot of maintenance.

You can learn to tolerate high SWR's, but I find it worthwhile to try to keep things matched. The energy has to go somewhere, I prefer it leave here through the antenna...
John Ferrell W8CCW

4916. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 20:51:45 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <69fjq1l443v9ctaddbasui9i018r3mafob@4ax.com>
Source record: 66313

On Wed, 21 Dec 2005 10:32:48 -0800, Richard Clark <kb7qhc@comcast.net>
wrote:

[history snipped]

>When you think of it, the Academy ratio still rules the digital
>photography marketplace. How many 2.66:1 Kodaks have you seen? Anyone
>find a 2.75:1 Nikon? Maybe.

Digital photography? Yuch.

Just can't beat a 4x5 view camera loaded with Fujichrome Velvia with a
Schneider lens at f45 for 10 seconds [g]. Unless, of course you use
an 8x10.

For some example see January's Arizona Highways Magazine, where fellow
Tucsonan, Jack Dykinga uses just that to capture images that will blow
your socks off.

4917. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 21:29:37 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <8dhjq19tqdj6mpc9pl1jgv4l4dluhc259a@4ax.com>
Source record: 66314

On Wed, 21 Dec 2005 20:18:05 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>On Tue, 20 Dec 2005 03:41:41 GMT, "W. Watson"
><wolf_tracks@invalid.com> wrote:
>
> I'm trying to make
>>some sense out of why the emphasis of standing waves.
>
>Here is the short version:
>A matched transmission line behaves like the theory books say it does.
>The rated power from the transmitter goes through the transmission
>line with the lowest possible loss to the antenna where it is radiated
>just like the book says.

It is true that reducing SWR for a given line does reduce the loss if
the line is long enough. (There are some scenarios where a short line
with high VSWR has less loss than matched line of the same length.)

But is matched line the real goal?

If low loss is the goal, there are often cost effective lower loss
solutions possible with lower loss line operated at high VSWR.

>A mismatched transmission just MIGHT work OK. If there is any
>possibility of generating interference, especially TVI, it will. The

Why? How is TVI "generated" by line mismatch?

Owen
--

4918. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 21:45:48 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <HfadnZ6YDuSUUDTenZ2dnUVZ_sadnZ2d@comcast.com>
Source record: 66316

Wes Stewart wrote:
> On Wed, 21 Dec 2005 10:32:48 -0800, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
> [history snipped]
>
>
>>When you think of it, the Academy ratio still rules the digital
>>photography marketplace. How many 2.66:1 Kodaks have you seen? Anyone
>>find a 2.75:1 Nikon? Maybe.
>
>
> Digital photography? Yuch.
>
> Just can't beat a 4x5 view camera loaded with Fujichrome Velvia with a
> Schneider lens at f45 for 10 seconds [g]. Unless, of course you use
> an 8x10.
>
> For some example see January's Arizona Highways Magazine, where fellow
> Tucsonan, Jack Dykinga uses just that to capture images that will blow
> your socks off.
Oh OO !!!

First, agreements.

1) I've used Velvia for almost 7 years. Love the saturation effects in scenic photographs. But, it's a bit too strong in portrature. I keep it for my Nikon and Mamiya systems and sccenic photos.

2) Schneider lenses are superb. Arguably, the best in the still camera market.

3) Large Format, superb film, excellent lenses make images that will blow everyone's socks off.

Note: I'd love a 4X5 view, but I'm limited to a Mamiya MF camera in 6X4.5.

Now, digital.

I have a modern design Olympus 5000 with 5 megapixel resolution. It is small and very easy to use. It is convienent. I'm dreaming about buying the Nikon D70 [I own 7 Nikon lenses and am invested in the system.]

I print 'Good' quality 4X6 and 5X7s on my computer printer. I have never tried to print a high resolution 8X10, so, I can't comment.

Future advances in CCD devices will continue to offer higher resolution. Journalism is almost 90% digital photography for it's still photos. I can go to a Professional Basketball game and shoot 300 to 600 images on one memory card; see the images immediately, delete the poor images immediately, select the better images for the editor and text author[s], and either upload or download any or all portions of the file immediately.

This saves up to one hour in processing and proof sheet review and simplifies the printing process.

Wedding photography is radically changed. During the wedding, church photos canm be distributed to the guests. Low resolution selected wedding photos can be uploaded to a web site for viewing and selection. The Bride, Groom and families can select cropping details well before final processing. The wedding photos can be delivered in high quality on a CD.

Velvia is super, but, digital is the future.

Amos, former photographer, retired.

What does this have to do with radidio?? <grin> I don't know. But, I just had to respond. <grin>

4919. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 21:59:17 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndqjk1m.2ssd.bit-bucket@shell.config.com>
Source record: 66317

On Wed, 21 Dec 2005 10:44:35 -0800, Richard Clark wrote:
>
> Hi Jonesy,
>
> Did you just move to Pueblo from Gunnison? Gunnison is such a nice
> town.

Hi Richard.

Yep, DM68 has A LOT less WS VHF actvity now. Think of the postage I'll save on QSL cards! HI!HI! How-some-ever, I have to start all over on my 6M WAS. Got all but R.I. with 9.5 watts on 6M from Gunnison. sigh...

(There really should be a W49S award! Quite a few folks have that!)

> Last time I was in Pueblo was during High School in the 60s. As
> we used to say about Tijuana when I was in the Navy: didn't lose
> anything there, so there was no reason to go back.

Being a contrarian, I selected Pueblo for the move, after my First Wife said she was done being cold in Gunnison. Turns out Pueblo is A Great Place to live -- unless you're trying to raise and educate children, or need to make a living. Luckily I'm not into any of that.

> Of course, Colorado Springs has tripled in size since then, and to
> no positive gain as far as I can tell.

Agreed. We bought a house on the S.E. side of Pueblo -- a little out in the county -- just to stay as far away from C. Spgs. as possible. :-)

73 MC es HNY
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

4920. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 22:18:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Swkqf.40703$tV6.7191@newssvr27.news.prodigy.net>
Source record: 66318

John Ferrell wrote:
> You can learn to tolerate high SWR's, but I find it worthwhile to try
> to keep things matched. The energy has to go somewhere, I prefer it
> leave here through the antenna...
> John Ferrell W8CCW

I assume that you realize there is a high SWR on a standing-
wave antenna, like a resonant 1/2WL dipole? :-)
--
73, Cecil http://www.qsl.net/w5dxp

4921. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 23:06:20 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11qjnt7a2mlskf2@corp.supernews.com>
Source record: 66319

I am amazed that this keeps going on.

In the early days of radio, the frequencies were low, receivers were not very sensitive, and the antennas were vertical - with some understandable exaggeration. Modern circuit theory - in the sense that things can be calculated - started about 1920.

In those early days, the concept of "height" was useful. For a given physical height, one was interested in increasing the "height." Top loading was one major tool.

A simple analysis was made based on the reasonable assumption that the current distribution along a short (less than 0.1 WL), thin, rod over a good ground was linearly distributed from a max. at the base to zero at the end. Such an analysis has been made an uncounted number of times since. I found a reference that suggests that Sommerfield might have made the calculation in a paper published in March 1909. The result is always that the assumed antenna has an open circuit voltage between its bottom and ground of no more than 0.5 of the incident, vertically-polarized wave's v/m times the physical length. (An ideal 0.25 WL antenna was expected to have a "height" of 2/pi.)

No expert has ever said something to contradict the 0.5 figure. What many have described is a way to visualize E in free space using a one meter wire. That is not the subject.

Before Professor Kraus' first edition (1950), "height" had lost most of its utility. Professor Terman in his 1943 edition of -Radio Engineers' Handbook- gives it a definitional footnote on page 841. Directivity and gain had been defined and have been useful ever since.

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

4922. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 23:11:02 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43a9c5d7@fidonet.org>
Source record: 66320

"Cecil Moore" bravely wrote to "All" (21 Dec 05 15:19:51)
--- on the heady topic of "Re: Antenna reception theory"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:221636

CM> Roy Lewallen wrote:
> But voltage isn't energy. Or power.

CM> True, but voltage cannot exist without energy.

I wouldn't say that. Voltage is kind of like having a big boulder sitting on top of a high cliff. It doesn't do anything so it doesn't expend energy. However, if it rolls off that's splat! Similarly you can have all the electrical potential you want but as long as no charges flow then where is the energy? In an EM wave it is the energy itself that flows in space using voltage and magnetism as a skeleton.

A*s*i*m*o*v

4923. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 23:25:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <lvlqf.44559$Zv5.23739@newssvr25.news.prodigy.net>
Source record: 66321

Asimov wrote:
> Voltage is kind of like having a big boulder
> sitting on top of a high cliff.

Yep, it is. A big boulder sitting on top of a high cliff
contains a lot of potential energy. Voltage is literally
potential energy and cannot exist without energy.
--
73, Cecil http://www.qsl.net/w5dxp

4924. Voyager Hazer ..??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-21 23:32:26 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <Mzlqf.19528$aS5.3766@bignews4.bellsouth.net>
Source record: 66322

Glen Martin just informed me that they are not making the "Hazer" for the 45G tower anymore....

Anyone know where one is for sale, and does anyone. know of a better or equal "mousetrap"..??

http://www.glenmartin.com/catalog/page12.html

TNX,

-Bill
kc4pe@mindspring.com

http://www.kc4pe.com/amateurshack.htm

4925. Re: 2 or more Ants. needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 00:28:11 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <vqmqf.45630$6e.6860@tornado.tampabay.rr.com>
Source record: 66323

"Michael" <ndcoder@srt.com> wrote in message
news:11qjiil4if6ul5c@corp.supernews.com...
> If you have the room, a loop antenna is a very good bet. I have used
dipoles
> and verticals for many years. A neighbor moved in a few doors down and put
> up a loop antenna. I went over and listened to the "quiet" It is a great
> antenna if you are really irritated by QRN. He has only used this type of
> antenna for 20 years since he tried it. I understand why. I have not yet
put
> up one, but will. It is winter here in North Dakota and not a good time
for
> antenna work.
> Evrery other type of antenna works, but I just love the S/N ratio on a
loop.
>
> Michael
> W0EZI
> "west" <westley@tampabay.rr.com> wrote in message
> news:1H3qf.17566$md.3615@tornado.tampabay.rr.com...
> > I'm ready to buy a Yaesu FT-857D (160-6m) & (2, 440). I been away from
> > Ham
> > Radio for more than 20 years & would like opinions on what would be the
> > absolute best omni-directional antenna(s) to buy, for this rig? All
> > opinions
> > welcomed. Thank you.
> >
> > west
> > AF4GC

I agree about the reduction of QRN in a horizontally polarized vs.
vertically polarized antenna but what about the gain? I don't have the time
to build. I have some property, but not a large amount. Are there commercial
loop antennas available and I guess I should concentrate on HF & 6M and
worry about VHF/UHF later. Thoughts? Thanks again.

west

> >
> >
>
>

4926. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 00:48:55 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <XJmqf.179027$qk4.86620@bgtnsc05-news.ops.worldnet.att.net>
Source record: 66324

Cecil Moore wrote:
>
> Yep, it is. A big boulder sitting on top of a high cliff
> contains a lot of potential energy. Voltage is literally
> potential energy and cannot exist without energy.

Cecil,

Still practicing physics without a license? 8-)

Electrical potential energy has units of voltage multiplied by charge.
Voltage by itself is not potential energy, literally or otherwise.

73,
Gene
W4SZ

4927. Re: antenna 'measurements' - can of worms

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 01:14:37 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43A9FDFD.2090708@comcast.net>
Source record: 66325

Oh yes. The antenna is 5 to 7 and ground is 15.

Richard Clark wrote:
> On Wed, 21 Dec 2005 07:20:24 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>Models predict a low feed
>>resistance for this antenna, yet shack SWR readings are better then 1.1. A feed
>>resistance of 20 Ohms or less should not result in that low of an SWR.
>
>
> Hi Dan,
>
> Did you include the 20 - 40 Ohms of Earth/Ohmic Loss in your Model?
>
> 73's
> Richard Clark, KB7QHC

4928. Re: antenna 'measurements' - can of worms

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 02:21:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <623kq19klbgt6a9fg7u9379s3uic6o5bqo@4ax.com>
Source record: 66226

On Wed, 21 Dec 2005 17:14:37 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Oh yes. The antenna is 5 to 7 and ground is 15.
>
>Richard Clark wrote:
>> Did you include the 20 - 40 Ohms of Earth/Ohmic Loss in your Model?

Hi Dan,

Then it appears you are not measuring the radiation resistance + loss,
but rather its transform through the tuning of the
>'large' screwdriver design

You might want to test your HP8405 against a 50Ohm load at the end of
the drive line, against known mismatched loads, and some measure of
the Q at each these nulls.

Do you choke the measurement drive line?

73's
Richard Clark, KB7QHC

4929. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 02:22:43 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <T5oqf.44625$Zv5.44277@newssvr25.news.prodigy.net>
Source record: 66227

Gene Fuller wrote:
> Electrical potential energy has units of voltage multiplied by charge.
> Voltage by itself is not potential energy, literally or otherwise.

I didn't mean to imply that voltage and energy are the same thing.
But voltage is indeed literally potential energy (per unit charge).
--
73, Cecil http://www.qsl.net/w5dxp

4930. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 02:23:51 UTC
From: The Eternal Squire <eternalsquire@hotmail.com>
Message-ID: <1135218231.794511.299350@f14g2000cwb.googlegroups.com>
Source record: 66228

Thanks. Just laid down 2 quarter wave counterpoises for 40m, and another quarter wave counterpoise for 20m. I also connected the ground system to an outside storage shed but who knows that would add. The ground system had already been connected to the electrical system ground ground, and thereby the house wiring.

Noise floor seems to be extremely high for 40 m in the afternoons and evenings, is this common?

The Eternal Squire

4931. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 02:55:45 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <RAoqf.1879$R84.716@newsread2.news.pas.earthlink.net>
Source record: 66229

Cecil Moore wrote:

> W. Watson wrote:
>
>> Thanks for your reply. I have a few questions. When you say "standing
>> waves", I take it that one can have more than one on the line?
>
>
> Standing waves are created by two coherent traveling waves moving
> in opposite directions in a transmission line. In a conventional
...
>
>> How does one know they want to improve their impedance match?
>
...
> antenna tuners to tune for maximum received signal on our S-meters.
> At the Z0-match point, maximum available energy is transferred.
>
> If you know the input impedance to a receiver, you can match your
> antenna system to it to achieve maximum available energy transfer
> from the antenna.
Thanks.
A standing wave is the sum of an incident added to the reflective wave.
Isn't it possible to send two incident waves down an xline with different
frequences, and produce two different standing waves by having some
multiplicative relationship between the two incident waves and the xline length?

Not a bad explanation from Wikipedia:

SWR has a number of implications that are directly applicable to radio use.

1. SWR is an indicator of reflected waves bouncing back and forth within
the transmission line, and as such, an increase in SWR corresponds to an
increase in power in the line beyond the actual transmitted power. This
increased power will increase RF losses, as increased voltage increases
dielectric losses, and increased current increases resistive losses.
2. Matched impedances give ideal power transfer; mismatched impedances
give high SWR and reduced power transfer.
3. Higher power in the transmission line also leaks back into the radio,
which causes it to heat up.
4. The higher voltages associated with a sufficiently high SWR could
damage the transmitter. Solid state radios which have a lower tolerance for
high voltages may automatically reduce output power to prevent damage. Tube
radios may arc. The high voltages may also cause transmission line
dielectric to break down and/or burn. Abnormally high voltages in the

antenna system increase the chance of accidental radiation burn if someone touches the antenna during transmission.

4932. Re: Still looking for a Tripp Lite PR-25 (or similar) DC power supply schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 02:59:34 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <wIadnQUzPPcGizfenZ2dnUVZ_tidnZ2d@comcast.com>
Source record: 66230
Cross-posted to:
alt.binaries.schematics.electronic,rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.homebrew
Body handling: HTML body converted to readable text

"Paul P" wrote in
message news:cW0qf.175681$qk4.13936@bgtnsc05-news.ops.worldnet.att.net...
> There are a couple of smoked resistors on the regulator board. I can not
> trust the ohm meter reading so I wanted to verify its value. I am trying
> to avoid De-engineering the board. Now once the resistors are replace
> there may be something else that smoked the resistors too.
>
> Paul.
>

Paul -

Where are these resistors .. the typical linear supply has low ohm
equalizing resistors across the NPN pass transistors .. and only a few in
the regulation circuit off the LM723 pins .. for example a 1 K is usually
used from pin 4 to the voltage adjustment potentiometer.

gb

4933. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 03:16:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <5Uoqf.43886$6e1.2147@newssvr14.news.prodigy.com>
Source record: 66231

W. Watson wrote:
> A standing wave is the sum of an incident added to the reflective wave.
> Isn't it possible to send two incident waves down an xline with
> different frequences, and produce two different standing waves by having
> some multiplicative relationship between the two incident waves and the
> xline length?

Sure, it's possible but one wonders about the application.

> 2. Matched impedances give ideal power transfer; mismatched
> impedances give high SWR and reduced power transfer.

A middle ground - Conjugately matched impedances give ideal power
transfer in the presence of high SWR. A feedline doesn't have to
be flat to be "matched". All that is required is that maximum
available power (actually energy) be transferred.
--
73, Cecil http://www.qsl.net/w5dxp

4934. Re: Still looking for a Tripp Lite PR-25 (or similar) DC power supply schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 03:40:24 UTC
From: ehsjr <ehsjr@bellatlantic.net>
Message-ID: <lepqf.1496$JP1.249@trndny03>
Source record: 66232
Cross-posted to:
alt.binaries.schematics.electronic,rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Paul P wrote:
> There are a couple of smoked resistors on the regulator board. I can not
> trust the ohm meter reading so I wanted to verify its value. I am trying to
> avoid De-engineering the board. Now once the resistors are replace there
> may be something else that smoked the resistors too.
>
> Paul.
>

Here's a link to an Astron supply:
http://www.seits.org/features/pwrsup.htm

Assuming a typical 723 ==> pass transistors linear supply,
it shouldn't be hard to figure out the values of the cooked
resistors. The schematic at the link above serves well as a
model for many (most?) of that type of supply. Combined
with the LM723 datasheet, you can fix it.

Ed

> "PS_DUDE" <psdude@psdude.com> wrote in message
> news:43A83F2A.72DD0E2C@psdude.com...
>
>>hi paul,
>>
>>Tripp lite makes good supplies but lacks in the
>>support side !
>>
>>Good thing is the supplies use off the shelf parts
>>or easy substituted parts from anywhre,
>>http://www.mouser.com etc.
>>
>>What problem(s) are you having ?
>>
>>73 ps dude
>>
>
>
>

4935. Re: One experience with noise

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 03:46:55 UTC
From: The Eternal Squire <eternalsquire@hotmail.com>
Message-ID: <1135223215.202749.279430@g44g2000cwa.googlegroups.com>
Source record: 66233

Richard Clark wrote:

> >Show me where I can sign up for a free TV from the government...

Hm... wouldn't that be a 'newscreen'?

> Welcome to the GOP welfare state.

Welcome to single party plutocratic corporo-fascism.

The Eternal Squire

4936. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 04:10:34 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <439kq11dj4fh6n7qpe6gm47ded3h9sg302@4ax.com>
Source record: 66234

I was simply sharing my experiences from the past.
If you have followed a few of my earlier posts you are aware I am
simply a student who should have been studying this many years ago.

I welcome any corrections.
I never gave the swr on the radiator any thought. That is a good
point.
.

On Wed, 21 Dec 2005 22:18:26 GMT, Cecil Moore <mycall@arrl.net> wrote:

>John Ferrell wrote:
>> You can learn to tolerate high SWR's, but I find it worthwhile to try
>> to keep things matched. The energy has to go somewhere, I prefer it
>> leave here through the antenna...
>> John Ferrell W8CCW
>
>I assume that you realize there is a high SWR on a standing-
>wave antenna, like a resonant 1/2WL dipole? :-)
John Ferrell W8CCW

4937. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 04:17:11 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <00akq1tpd63d6p90lspuju1k4joa6m1gtj@4ax.com>
Source record: 66235

On Wed, 21 Dec 2005 21:29:37 GMT, Owen Duffy <owen@no.where> wrote:

>On Wed, 21 Dec 2005 20:18:05 GMT, John Ferrell
><johnferrell@sprintmail.com> wrote:
>
>>On Tue, 20 Dec 2005 03:41:41 GMT, "W. Watson"
>><wolf_tracks@invalid.com> wrote:
>>
>> I'm trying to make
>>>some sense out of why the emphasis of standing waves.
>>
>>Here is the short version:
>>A matched transmission line behaves like the theory books say it does.
>>The rated power from the transmitter goes through the transmission
>>line with the lowest possible loss to the antenna where it is radiated
>>just like the book says.
>
>It is true that reducing SWR for a given line does reduce the loss if
>the line is long enough. (There are some scenarios where a short line
>with high VSWR has less loss than matched line of the same length.)
>
I will have to take your word for it, I cannot think of any examples.
>But is matched line the real goal?
>
>If low loss is the goal, there are often cost effective lower loss
>solutions possible with lower loss line operated at high VSWR.
>
>>A mismatched transmission just MIGHT work OK. If there is any
>>possibility of generating interference, especially TVI, it will. The
>
>Why? How is TVI "generated" by line mismatch?
>
>Owen
I really don't know why there is more TVI with a high swr. But my
experience has been that there is, especially on 6 meters.
John Ferrell W8CCW

4938. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 04:30:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doda4gffo1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66236

To anybody who may be reading -

(1) There's far too much importance attached to standing waves on transmission lines. But see (4).

(2) There are colossal standing waves on antennas which are seldom taken any notice of.

(3) Anyway, of what use does anybody make of standing waves after taking the trouble to measure them. And the measurements themselves are the most inacurate in the field of radio engineering.

(4) And to cap it all, the common or garden SWR meter does NOT measure standing waves on the feedline to the antenna where they might conceivably be of interest. It's all a gigantic hoax!

Season's Greetings from Reg, G4FGQ.

4939. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 04:43:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dodaufmrl1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66237

The French should be given full credit for inventing the unit of
length by correctly spelling it, the "METRE".

Also, this avoids confusion with the frequently used word "METER", a
measuring instrument, when they are both mentioned in the same
sentence.
==========

4940. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 05:11:05 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43aa2ac5@fidonet.org>
Source record: 66238

"Cecil Moore" bravely wrote to "All" (21 Dec 05 23:25:05)
--- on the heady topic of "Re: Antenna reception theory"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:221661

CM> Asimov wrote:
> Voltage is kind of like having a big boulder
> sitting on top of a high cliff.

CM> Yep, it is. A big boulder sitting on top of a high cliff
CM> contains a lot of potential energy. Voltage is literally
CM> potential energy and cannot exist without energy.

If I can manage to roll the boulder up at the top or at the bottom of
the cliff, I will find it weighs about the same. The boulder only
picks up energy as it is accelerating towards the foot of the cliff.

A*s*i*m*o*v

4941. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:09:30 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <agfkq19q1kdrks1jv5c9c8ioas6kbesd26@4ax.com>
Source record: 66239

On Thu, 22 Dec 2005 04:17:11 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>>It is true that reducing SWR for a given line does reduce the loss if
>>the line is long enough. (There are some scenarios where a short line
>>with high VSWR has less loss than matched line of the same length.)
>>
>I will have to take your word for it, I cannot think of any examples.

John,

It was really a bit of an aside, a lead into the more important point
that followed, however...

In most practical lines at HF, loss is dominated by the series
resistance.

In the regions of a current minimum on a line with high VSWR, the I^2R
losses are less than for the same net power on a flat line, and
conversely, in the region of a current maximum on a line with high
VSWR, the I^2R losses are more than for the same net power on a flat
line. Over a half wave of line, the total losses are higher than a
flat line, but a short line in the regions of a current minimum may
have losses less than the matched line loss.

Whilst that is not often to our benefit as we rarely have relatively
short lines with high Z loads, the converse is true of the more common
situation of a short line with a low Z load. For example, 3m of RG58
with a 5+j0 load (eg mobile antenna) on 3.5MHz has a matched line loss
of 0.08dB, and an actual loss of 0.66dB. Many charts and formulas
would predict the mismatched loss to be only 0.39dB, but it is worse
because the line is short and in the region of a current maximum.

>>But is matched line the real goal?
>>
>>If low loss is the goal, there are often cost effective lower loss
>>solutions possible with lower loss line operated at high VSWR.
>>
>>>A mismatched transmission just MIGHT work OK. If there is any
>>>possibility of generating interference, especially TVI, it will. The
>>
>>Why? How is TVI "generated" by line mismatch?
>>

>I really don't know why there is more TVI with a high swr. But my
>experience has been that there is, especially on 6 meters.

If you can't explain the mechanism by which SWR causes TVI, perhaps they correlate by some other cause. For example, an antenna may develop loose oxided connections which both change the load impedance (and hence VSWR), and create intermodulation causing TVI.

If VSWR *does* cause TVI, surely someone will be able to explain how?

Lots of people operate feedlines at high VSWR by design, and they do not necessarily cause TVI.

When you dismiss the TVI myth, you get closer to understanding how the transmission lines work and perform, and that for example, operating a feedline at high VSWR can be part of an efficient and effective multiband HF antenna. Such a solution should not be dismissed out of hand because of high VSWR alone.

Owen
--

4942. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:14:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qkh31l0humk7e@corp.supernews.com>
Source record: 66240

Reg Edwards wrote:
> The French should be given full credit for inventing the unit of
> length by correctly spelling it, the "METRE".
>
> Also, this avoids confusion with the frequently used word "METER", a
> measuring instrument, when they are both mentioned in the same
> sentence.

I'm so glad to hear you're committed to correctness and against confusion. Perhaps you can direct some of your efforts toward your countrymen - the U.K. is the only place I've been where "m" is used as an abbreviation for both metres and miles.

Roy Lewallen, W7EL

4943. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:16:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qkh5h8if819af@corp.supernews.com>
Source record: 66241

The Eternal Squire wrote:
> . . .
> Noise floor seems to be extremely high for 40 m in the afternoons and
> evenings, is this common?

Atmospheric noise is usually very low on 40 meters during the day.
Sounds like you have some relatively local source of man-made noise.

Roy Lewallen, W7EL

4944. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:16:47 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1pgkq1pa074foen5ghsfkh5brc7punqnbb@4ax.com>
Source record: 66242

On Thu, 22 Dec 2005 04:43:59 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>The French should be given full credit for inventing the unit of
>length by correctly spelling it, the "METRE".

Reg, I think the US was one of the relatively early signatories to the metre convention, but reserved the position to spell "metre" as "meter".

I can't recall when the UK signed the convention, my recollection is that we in VK signed it much later than both, however we metricated earlier than the UK, and the US hasn't metricated (metericated???) in the true sense of the word.

I don't miss the days of rods roods poles perches chains etc, without mentioning other dimensional units.

>
>Also, this avoids confusion with the frequently used word "METER", a
>measuring instrument, when they are both mentioned in the same
>sentence.
>==
>
>

Oh well.

Give some people 25.4mm and they will take 16,609.344m! (Lost something in the translation I suspect!)

Owen
--

4945. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:18:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qkh9tkmvoehff@corp.supernews.com>
Source record: 66243

John Ferrell wrote:
> . . .
> I really don't know why there is more TVI with a high swr. But my
> experience has been that there is, especially on 6 meters.
> John Ferrell W8CCW

It might be that the same phenomenon, or related ones, have caused both the high SWR and the TVI. But high SWR doesn't cause TVI. Or feedline radiation, which is another mistaken idea.

Roy Lewallen, W7EL

4946. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:38:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qkiej4csr8i4e@corp.supernews.com>
Source record: 66244

W. Watson wrote:
> . . .
> Not a bad explanation from Wikipedia:
>
> SWR has a number of implications that are directly applicable to radio use.
>
> 1. SWR is an indicator of reflected waves bouncing back and forth
> within the transmission line, and as such, an increase in SWR
> corresponds to an increase in power in the line beyond the actual
> transmitted power. This increased power will increase RF losses, as
> increased voltage increases dielectric losses, and increased current
> increases resistive losses.

I go along with that.

> 2. Matched impedances give ideal power transfer; mismatched
> impedances give high SWR and reduced power transfer.

That's oversimplified and a misapplication of the rule of maximum power transfer. Suppose I have a 50 ohm source connected to a 50 ohm load and adjust the source so it puts 100 watts into the load. Then I put a half wavelength of 300 ohm line between the source and the load. The transmission line will have a 6:1 SWR. There will be a 6:1 impedance mismatch at the transmission line-load junction. Yet
-- The load power will be 100 watts as before.
-- The power produced by the source will be 100 watts as before.
-- The system efficiency will be the same as it was before.
-- 100 watts will be transferred from the source to the line.
-- 100 watts will be transferred from the line to the load.

So in no way did the high SWR result in reduced power transfer.

Now change the load impedance to 300 ohms.

-- There is now a 6:1 mismatch between the source and the line.
-- The line SWR is now 1:1.
-- The load power will be reduced.

The mismatch between source and line didn't cause a high SWR on the line. In fact, changing the line impedance degraded the match at the same time it improved the SWR.

> 3. Higher power in the transmission line also leaks back into the
> radio, which causes it to heat up.

That's demonstrably false. For some examples and explanations, see
http://www.eznec.com/misc/food_for_thought/Food%20for%20thought%20-%20Forward%20and%20Reve

rse%20Power.txt.
(You might have to splice this URL back together if your browser splits it.)

> 4. The higher voltages associated with a sufficiently high SWR could
> damage the transmitter. Solid state radios which have a lower tolerance
> for high voltages may automatically reduce output power to prevent
> damage. Tube radios may arc. The high voltages may also cause
> transmission line dielectric to break down and/or burn.

That's true. Some transmitters can be damaged from a number of causes when the load impedance isn't approximately what the transmitter was designed for. Only one of those possible causes is increased voltage.

Of course, a high SWR can also cause the voltage at the transmitter to be lower than it otherwise would have been.

> Abnormally high
> voltages in the antenna system increase the chance of accidental
> radiation burn if someone touches the antenna during transmission.

But the antenna doesn't have an SWR, the transmission line does. If you do have an open wire transmission line, it's best not to touch the line regardless of the SWR. But if you have a high line SWR, there's just a good of a chance that the voltage at the point you touch is lower due to the high SWR than it is than the voltage is higher.

I'll bet if you search the web you can find just about any kind of possible misinformation about SWR, just as you can about any other topic.

Roy Lewallen, W7EL

4947. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:45:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qkis2gk7qad60@corp.supernews.com>
Source record: 66245

John Ferrell wrote:
>
> Here is the short version:
> A matched transmission line behaves like the theory books say it does.
> The rated power from the transmitter goes through the transmission
> line with the lowest possible loss to the antenna where it is radiated
> just like the book says.

Mismatched transmission lines also behave like the theory books say. The rated power from the transmitter goes through the transmission line to the antenna where it is radiated just like the book says.

I deleted only "with the lowest possible loss" because increased SWR does increase line loss. But if the line loss is low when matched, the increased loss due to high SWR is often negligible.

>. . .

Roy Lewallen, W7EL

4948. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 06:51:08 UTC
From: bpl_just_say_NO <bpl_dude@nobplforme.com>
Message-ID: <43AA4CDA.46CD92EB@nobplforme.com>
Source record: 66246

150 Million for ten years. that is a lot of money for nothing.

DQE will also have a pilot program in Monroeville PA

http://biz.yahoo.com/prnews/051215/cgth037.html?.v=44

I don't think they can compete with the newer intel and
motorola technology for wireless.

4949. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 07:51:17 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <8bWHrWE1rlqDFAgU@ifwtech.co.uk>
Source record: 66247

Owen Duffy wrote:
>
>>I really don't know why there is more TVI with a high swr. But my
>>experience has been that there is, especially on 6 meters.
>
>If you can't explain the mechanism by which SWR causes TVI, perhaps
>they correlate by some other cause. For example, an antenna may develop
>loose oxided connections which both change the load impedance (and
>hence VSWR), and create intermodulation causing TVI.
>
>If VSWR *does* cause TVI, surely someone will be able to explain how?

When people report "high SWR", they are usually talking about a coax-fed system, and they usually mean "a higher SWR than I expected for this antenna".

That is a big clue that the antenna is not performing correctly... but the high SWR is only a symptom. It shouldn't be mistaken for a cause.

One very common cause of RFI is common-mode RF current on the outside of the coax - in other words, the coax has become an unintended part of the antenna. The outside of the coax comes back down into the house, and can be a potent conductor of RFI. The higher than expected SWR is simply because the addition of the coax makes this a *different* antenna from the one you thought you were using.

With something like a 6m yagi, the cure is generally to change to a truly balanced feed system, and to add a feedline choke.

Obviously common-mode current is not the *only* possible connection between "high SWR" and RFI, but it's more common than many people suspect.

Just caught Roy's second post about the mistaken belief that high SWR and feedline radiation. It should be clear from the above that higher-than-expected SWR and feedline radiation are two separate *results* of unwanted common-mode currents. Once again, SWR should not be mistaken for a cause.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4950. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 08:28:27 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <f7hPTPIrOmqDFA3E@ifwtech.co.uk>
Source record: 66248

Sorry, the last paragraph of my previous posting should have included
the word _causes_. It should have read:

>
>Just caught Roy's second post about the mistaken belief that high >SWR
causes feedline radiation. It should be clear from the above
>that higher-than-expected SWR and feedline radiation are two
>separate *results* of unwanted common-mode currents. Once
>again, SWR should not be mistaken for a cause.
>

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4951. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 11:47:55 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <eNWdneIMy7P2DzfenZ2dnUVZ_v-dnZ2d@comcast.com>
Source record: 66249

Asimov wrote:
> "Cecil Moore" bravely wrote to "All" (21 Dec 05 23:25:05)
> --- on the heady topic of "Re: Antenna reception theory"
>
> CM> From: Cecil Moore <mycall@arrl.net>
> CM> Xref: core-easynews rec.radio.amateur.antenna:221661
>
> CM> Asimov wrote:
> > > Voltage is kind of like having a big boulder
> > > sitting on top of a high cliff.
>
> CM> Yep, it is. A big boulder sitting on top of a high cliff
> CM> contains a lot of potential energy. Voltage is literally
> CM> potential energy and cannot exist without energy.
>
>
> If I can manage to roll the boulder up at the top or at the bottom of
> the cliff, I will find it weighs about the same. The boulder only
> picks up energy as it is accelerating towards the foot of the cliff.
>
> A*s*i*m*o*v

W R O N G !!!!!!!!!!!!!!!!!!!!

The boulder has energy simply because it is on top of the cliff.
[Potential Energy].

As it accelerates towards the bottom of the cliff the energy changes [
CHANGES] from POTENTIAL to KINETIC.

The 11th commandment: Energy can be neither created nor destroyed: just
changed in type of energy.

A*s*i*m*o*v, you need to refresh your freshman University Physicss.

AK
>
>

4952. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 11:56:50 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <GfKdnZmSstwfCTfenZ2dnUVZ_sWdnZ2d@comcast.com>
Source record: 66250

Owen Duffy wrote:

> SNIPPED

>
>
> Give some people 25.4mm and they will take 16,609.344m! (Lost
> something in the translation I suspect!)
>
> Owen
> --

Hmmm ... 16,609.344m = 10 miles does it not??

Not only did it lose something in translation, it lost something in units,

Give some people an inch and they will take a mile <grin> NOT 10
miles!!!!!!!!!!

4953. website

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 12:23:21 UTC
From: Super DX <superdx@free.fr>
Message-ID: <KUwqf.495$Lp.303@nntpserver.swip.net>
Source record: 66251

Hi all,

here is a new ham website :

http://superdx.free.fr

73's and Merry Xmas !

Vince

4954. To Reg Edwards et al: Questions On Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 12:27:19 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <tu-dnajw0KcCBjfeRVn-gg@comcast.com>
Source record: 66252

Hello, and aHappy Holidays,

Thanks for taking the time to reply to my questions re Slopers.
Am pretty new at this, and find antennas a fascinating, and quite confusing, subject.
Lots to learn, but fun doing so.

Have a JRC 545 which I really love, but obviously am not using to its full potential.
Just have a random length wire running around my attic.
Do listening only, from 30 MHz on down. Would really want something very close to omni for antenna.

Once it warms up a bit, I plan on putting up outside either a PAR SWL-EFL end fed in an Inverted-L configuration,
or possibly an Alpha Delta, or similar, Sloper.

My thinking right now is for the PAR as an Inverted-L.

Would like to ask if you have any thoughts on the PAR ?

a. e.g., in practice, is it also omni, or should I try and orient it ?
If so, is it most sensitive perpendicular to the horiz. wire axis ?

b. what would be the best ratio between the horiz. and vert. legs ?

c. I guess the end of the vertical leg should be very, very close to the Balun and ground
bar I'll be putting in. But, how does one handle 4' snow drifts getting over the Balun, etc. Is this Coax Sealer product good enough ?
Or, should I just raise the end about 4' and run some braid from the Balun to the ground bar ?

You seem very knowledgeable on all of this "black magic" so any other hints or opinions
re the PAR, or mtg and using it, would be most appreciated.

Thanks, and best regards,
Bob

For practical receiving purposes, a sloping wire, in the midst of buildings, can be considered to be omi-directional, even isotropic. Any variations in directivity, in either the vertical or horizontal planes, although they exist, are not measurable or noticeable. The random effect of the presence of a nearby building or buildings is greater than the direction in which the wire may or may not slope

4955. Re: antenna 'measurements' - can of worms

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 14:04:20 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <1bclq11pd16moggs64qdafqgp4nhks4cu0@4ax.com>
Source record: 66253

On Wed, 21 Dec 2005 17:14:37 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Oh yes. The antenna is 5 to 7 and ground is 15.

Wait a minute. You said this was a "dipole", right?

If your model is operated over, but not referenced to, ground, then
ground effects are built in.

If there are sliding contacts in this antenna (I assume there are) I
wouldn't trust any rf reading until I used a good ohmmeter first.

4956. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 14:09:38 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <qm9lq1lob24u22733brcbiardvnoulm945@4ax.com>
Source record: 66254

I am glad I chose to display my ignorance, I have learned a lot.

I will modify my earlier position that High SWR causes TVI to Roy's
better explanation that they seem to have the same causes.

I have noted that other people seem to get along with High SWR's and
Non resonant antennas. Neither has worked well for me in the past.

I used to operate ATV on 440mhz with a 48 element collinear antenna.
(I did not do the initial construction) It was basically a collection
of dipoles and reflectors tied together with open wire phasing
harnesses. I could never quite figure out what the harness might be
losing. The antenna seemed to be worth about 21db with very primitive
measuring schemes. I speculated that it had a theoretical potential of
48db. I always felt that the phasing harness was the major contributor
to the losses.

With each driven element being resonant, some measure of success was
assured with each one. At 440, feed line losses get critical in a
hurry.

The transmitter final was a military surplus cavity with a 4CX250 that
had been "stuffed" to get it up to 440. As a side effect the output Z
was determined to be pretty low by trying several home brew quarter
wave coaxial matching sections. When a good match was made, a lot of
problems went away. Not only was I managing a better signal, but the
polyethylene cooling ducting was taking a longer time to melt down.

Hence, my position that SWR IS important.

Please note: I am not here to pick an argument, I recently took
W4RNL's antenna course, bought Roy's EZNEC+ program, downloaded (still
studying) Reg's many programs and have taken note that Cecil is a
motorcycle fan like my Dad was.

When I provoke an argument, I am trying to learn something.
BTW, I do have a pretty good library of reference books but you guys
explain it better in terms I can grasp!

On Wed, 21 Dec 2005 22:45:20 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>John Ferrell wrote:
>>
>> Here is the short version:
>> A matched transmission line behaves like the theory books say it does.
>> The rated power from the transmitter goes through the transmission

>> line with the lowest possible loss to the antenna where it is radiated
>> just like the book says.
>
>Mismatched transmission lines also behave like the theory books say. The
>rated power from the transmitter goes through the transmission line to
>the antenna where it is radiated just like the book says.
>
>I deleted only "with the lowest possible loss" because increased SWR
>does increase line loss. But if the line loss is low when matched, the
>increased loss due to high SWR is often negligible.
>
> >. . .
>
>Roy Lewallen, W7EL
John Ferrell W8CCW

4957. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 14:14:23 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3xyqf.33646$BZ5.10034@newssvr13.news.prodigy.com>
Source record: 66255

John Ferrell wrote:
> I never gave the swr on the radiator any thought. That is a good
> point.

Hi John, it was supposed to be humorous. I find it amusing that someone will say, "I hate high SWRs.", while running a resonant dipole with an SWR of 20:1 (or whatever) on the radiating elements.

Superposition and interference between the forward waves and reflected waves on the radiating elements is what brings the feedpoint impedance of a 1/2WL dipole down to 50 ohms (or whatever). If it were not for standing waves on a 1/2WL dipole, the feedpoint impedance would be in the neighborhood of 1200 ohms, similiar to an infinite dipole.
--
73, Cecil http://www.qsl.net/w5dxp

4958. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 14:27:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PJyqf.33647$BZ5.29588@newssvr13.news.prodigy.com>
Source record: 66256

John Ferrell wrote:
> I really don't know why there is more TVI with a high swr. But my
> experience has been that there is, especially on 6 meters.

SWR can have an indirect effect on common-mode currents by causing
a malfunction of the balun. For an SWR of 1:1, the balun is probably
functioning in the impedance environment for which it was designed.
That balun may cease to choke properly when exposed to the impedances
present in an SWR >> 1:1 environment and allow more common-mode signals
to develop and radiate.
--
73, Cecil http://www.qsl.net/w5dxp

4959. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 14:41:03 UTC
From: gsm@mendelson.com
Message-ID: <slrndqle80.3vn.gsm@cable.mendelson.com>
Source record: 66259

Jim Higgins wrote:

>The result? BPL economics absolutely cannot support the
> promises made for it. If they have to fulfill the promises it's dead
> before it starts.

The flaw in your logic is that Google invested $100,000,000 on Current
Communications. If the trial flops economicaly, they can just keep
pouring money into it until they corner the market.

The way I figure it is they just raised $4b in a stock offering. If the
$3b left over after buying part of AOL isn't enough, they will just
sell more stock.

Every time you click on an "ads by google", you are supporting BPL.
Every time you vist a web site with "ads by google" you are supporting BPL.
If you bought Google stock, or invested in a mutual fund that did,
you are supporting BPL.

Geoff.

--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (07)-7424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
The trouble with being a futurist is that when people get around to believing
you, it's too late. We lost. Google 2,000,000:Hams 0.

4960. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 14:47:46 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <l0zqf.33651$BZ5.12447@newssvr13.news.prodigy.com>
Source record: 66257

Asimov wrote:
> If I can manage to roll the boulder up at the top or at the bottom of
> the cliff, I will find it weighs about the same. The boulder only
> picks up energy as it is accelerating towards the foot of the cliff.

Energy cannot be created or destroyed. The kinetic energy gained
as it accelerates is exactly balanced by the loss in potential
energy that it had at the top of the cliff.

Consider a pendulum. When it stops at the limit of its swing,
it possesses potential energy. When it is moving at its fastest
at the bottom of its swing, it possesses kinetic energy. When
it finishes the swing to the other limit, it possesses potential
energy. Neglecting losses, potential energy at the top of the
swing is converted into an equal magnitude of kinetic energy at
the bottom of the swing and back to potential energy at the top
of the swing.
--
73, Cecil http://www.qsl.net/w5dxp

4961. Re: antenna 'measurements' - can of worms

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 14:48:40 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43AABCC8.7080609@comcast.net>
Source record: 66258

Yes, I am measuring at the end of the cable. The 8405a is configured in a balanced setup between a reference arm and an unknown arm. When the unknown arm, i.e. the antenna is terminated in 50 Ohms the line length does not matter. That was a surprise to me. The 8405a then reads the unknown at the end of the cable.

Richard Clark wrote:
> On Wed, 21 Dec 2005 17:14:37 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>Oh yes. The antenna is 5 to 7 and ground is 15.
>>
>>Richard Clark wrote:
>>
>>>Did you include the 20 - 40 Ohms of Earth/Ohmic Loss in your Model?
>
>
> Hi Dan,
>
> Then it appears you are not measuring the radiation resistance + loss,
> but rather its transform through the tuning of the
>
>>'large' screwdriver design
>
>
> You might want to test your HP8405 against a 50Ohm load at the end of
> the drive line, against known mismatched loads, and some measure of
> the Q at each these nulls.
>
> Do you choke the measurement drive line?
>
> 73's
> Richard Clark, KB7QHC

4962. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 15:07:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <5jzqf.33656$BZ5.28225@newssvr13.news.prodigy.com>
Source record: 66260

Owen Duffy wrote:
> Lots of people operate feedlines at high VSWR by design, and they do
> not necessarily cause TVI.

Here's one example where a high VSWR might cause more TVI.

XMTR--tuner--12:1 balun--5.25 WL 600 ohm feedline--600 ohm load

XMTR--tuner--12:1 balun--5.25 WL 600 ohm feedline--50 ohm load

The 600 ohm SWR is 1:1 in the first case. The balun sees
the impedance for which it was designed and functions to
choke off common mode currents with its 3000 ohms of
choking impedance.

The 600 ohm SWR is 12:1 in the second case. Neglecting
losses, the balun sees 7200 ohms, 12 times higher than
that for which it was designed. Its 3000 ohm choking impedance
may allow much more common mode current to flow and radiate
to the TV than in the first case.
--
73, Cecil http://www.qsl.net/w5dxp

4963. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 15:11:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ymzqf.33658$BZ5.509@newssvr13.news.prodigy.com>
Source record: 66261

Reg Edwards wrote:

> The French should be given full credit for inventing the unit of
> length by correctly spelling it, the "METRE".
>
> Also, this avoids confusion with the frequently used word "METER", a
> measuring instrument, when they are both mentioned in the same
> sentence.

The accident investigation crews here have a device that meters
distances. I assume that in the UK, it is calibrated in metres.
Do you guys call that device a "metre meter"?
--
73, Cecil http://www.qsl.net/w5dxp

4964. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 15:16:03 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Tqzqf.33660$BZ5.8016@newssvr13.news.prodigy.com>
Source record: 66262

Roy Lewallen wrote:
> But the antenna doesn't have an SWR, ...

Actually it does, if it is a standing-wave antenna like
a 1/2WL resonant dipole. The reflections from the ends
of the dipole are what lowers the virtual feedpoint
impedance so that coax is a good match.
--
73, Cecil http://www.qsl.net/w5dxp

4965. Re: VHF/UHF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 16:45:46 UTC
From: crjunk@earthlink.net
Message-ID: <1135269946.361185.213430@z14g2000cwz.googlegroups.com>
Source record: 66263

Thanks for the info Dave. I've been doing a little research and I'm thinking about trying a DB4 antenna to see how it does. I've read some post where people said it did well when they set it up inside their attic. If the attic doesn't work, they I may see about attaching it to the chimney on my house. Maybe this will do the trick.

Doe anyone have any opinion on the DB4 antenna?

CR Junk

4966. ant tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 19:25:15 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <p2Dqf.26503$k76.2020@bignews6.bellsouth.net>
Source record: 66264

Got one for you gurus and mavens.

I'm runnning an unbalanced roller T tuner through a balun to ladderline.

I want to set up a chart of mid band tune points so I can QSY reasonably quickly and with minimum fuss of knob twiddling.

I have a small antenna analyzer. Can I just put this on the rig side of the tuner, and use it to find matchpoints? Would I set it on 50 ohms, and then adjust the tuner controls until I get that?

4967. Re: 2 or more Ants. needed

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 19:33:12 UTC
From: Michael <ndcoder@srt.com>
Message-ID: <11qjiil4if6ul5c@corp.supernews.com>
Source record: 66315

If you have the room, a loop antenna is a very good bet. I have used dipoles and verticals for many years. A neighbor moved in a few doors down and put up a loop antenna. I went over and listened to the "quiet" It is a great antenna if you are really irritated by QRN. He has only used this type of antenna for 20 years since he tried it. I understand why. I have not yet put up one, but will. It is winter here in North Dakota and not a good time for antenna work.
Evrery other type of antenna works, but I just love the S/N ratio on a loop.

Michael
W0EZI
"west" <westley@tampabay.rr.com> wrote in message
news:1H3qf.17566$md.3615@tornado.tampabay.rr.com...
> I'm ready to buy a Yaesu FT-857D (160-6m) & (2, 440). I been away from
> Ham
> Radio for more than 20 years & would like opinions on what would be the
> absolute best omni-directional antenna(s) to buy, for this rig? All
> opinions
> welcomed. Thank you.
>
> west
> AF4GC
>
>

4968. Re: ant tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 19:34:31 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <M6SdndnnrN1bYjfeRVn-ow@comcast.com>
Source record: 66265

RB wrote:
> Got one for you gurus and mavens.
>
> I'm runnning an unbalanced roller T tuner through a balun to ladderline.
>
> I want to set up a chart of mid band tune points so I can QSY reasonably
> quickly and with minimum fuss of knob twiddling.

I have a small antenna analyzer. Can I just put this on the rig side
of the
tuner, and use it to find matchpoints? ... YEP!!!

Would I set it on 50 ohms, ... YEP!!! [tune for 1:1 VSWR or equivalent.

and then adjust the tuner controls until I get that? ... YEP!!!
>
>
>

4969. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 19:53:30 UTC
From: mcalhoun@ksu.edu
Message-ID: <dof07q$p8t@unix2.cc.ksu.edu>
Source record: 66266

>I am installing a short tower. The soil is very dry, mostly volcanic ash
>and low conductivity. I had the backhoe operator drill several holes 4
>feet deep for grounding. It is impossible to drive a ground rod deeper
>than 4 feet due to bedrock. What should I use to fill the holes after
>the ground rods are installed?

Do a web-search for "bentonite" and "ground", and you'll learn lots!

Although I've never used it (but I'm going to start!), "bentonite" is
the appropriate stuff to use. When wet, it expands inward to squeeze
the ground rod and outward to press firmly against the soil, thereby
resulting in (effectively) a very large-diameter ground well-connected
to the soil.

Clumping-type kitty-litter is supposedly bentonite (a clay material),
so it should be relatively cheap.
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4970. Re: ant tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 20:14:25 UTC
From: dplatt@radagast.org
Message-ID: <11qm2912at2nlcc@corp.supernews.com>
Source record: 66267

In article <p2Dqf.26503$k76.2020@bignews6.bellsouth.net>,
RB <rbig@bellsouth.nospam.net> wrote:

>Got one for you gurus and mavens.
>
>I'm runnning an unbalanced roller T tuner through a balun to ladderline.
>
>I want to set up a chart of mid band tune points so I can QSY reasonably
>quickly and with minimum fuss of knob twiddling.
>
>I have a small antenna analyzer. Can I just put this on the rig side of the
>tuner, and use it to find matchpoints? Would I set it on 50 ohms, and then
>adjust the tuner controls until I get that?

That will work fairly well, as long as there isn't enough
strong-signal energy hitting the antenna to confuse the antenna
analyzer and cause false readings. For example, trying to use an MFJ
analyzer to tune up an 80-meter antenna in an urban area can (I
understand) be quite an exercise in frustration, because the strong
signals from local AM broadcast stations are enough to cause the
analyzer to mis-indicate the antenna system's SWR.

I'd say, go right ahead and make these measurements... but make 'em in
pencil, and plan on verifying them using your transmitter (at low
power) and an in-line forward/reflected-power SWR meter.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4971. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 20:23:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qm2qgbn0p7g0d@corp.supernews.com>
Source record: 66268

John Ferrell wrote:
> . . .
> The transmitter final was a military surplus cavity with a 4CX250 that
> had been "stuffed" to get it up to 440. As a side effect the output Z
> was determined to be pretty low by trying several home brew quarter
> wave coaxial matching sections. When a good match was made, a lot of
> problems went away. Not only was I managing a better signal, but the
> polyethylene cooling ducting was taking a longer time to melt down.
>
> Hence, my position that SWR IS important.
> . . .

All this demonstrates is that impedance match is important to the transmitter final. The quality of impedance match is often indicated as SWR on an SWR meter when in fact the meter reading often has little or nothing to do with the SWR on any transmission line. Even when it does, the problems with the transmitter are due solely to the poor impedance match and not at all due to the SWR on connected transmission lines.

Let me give an example. Connect your transmitter through a half wavelength of 300 ohm transmission line to a 50 ohm (resistive) load. The transmitter sees 50 ohms, so an SWR meter at the transmitter will read 1:1, even though the SWR on the line is in fact 6:1. The transmitter can't tell the difference between this setup, a direct connection to the 50 ohm load, or connection to it through a half wavelength of cable with any impedance and therefore having any SWR. In all cases, the transmitter sees 50 ohms, which is all that matters. The line's SWR makes no difference at all.

If for some reason you were really interested in finding the SWR on the 300 ohm line, you'd have to insert a 300 ohm SWR meter at the transmitter-line junction. It would correctly read 6:1.

Roy Lewallen, W7EL

4972. anothr ant tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 20:45:18 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <BdEqf.10126$RZ6.67@bignews7.bellsouth.net>
Source record: 66269

Geee-----we're on a roll! Thanks for good info on my previous query. Now, a new one:

Just put a small MFJ -949E tuner into my antenna system.

Thing works great. The only weird thing is I notice the tuning is extremely "tight" and "goosey". The slightest movement of the variable caps produces jumps in meter readings. Having said that, I can still manage with it.

Years ago, this kind of tuning effect was from hand capacity, when just about everything in the shack was RF hot.

However, this isn't what we're dealing with here. Once my controls are set, touching around the tuner anywhere doesn't alter anything. So, it's not hand capacity/coupling.

What is this effect indicative of? Just curious.

4973. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 21:04:03 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43ab04d4@fidonet.org>
Source record: 66270

"Cecil Moore" bravely wrote to "All" (22 Dec 05 14:47:46)
--- on the heady topic of "Re: Antenna reception theory"

CM> From: Cecil Moore <mycall@arrl.net>
CM> Xref: core-easynews rec.radio.amateur.antenna:221698

CM> Asimov wrote:
> If I can manage to roll the boulder up at the top or at the bottom of
> the cliff, I will find it weighs about the same. The boulder only
> picks up energy as it is accelerating towards the foot of the cliff.

CM> Energy cannot be created or destroyed. The kinetic energy gained
CM> as it accelerates is exactly balanced by the loss in potential
CM> energy that it had at the top of the cliff.

CM> Consider a pendulum. When it stops at the limit of its swing,
CM> it possesses potential energy. When it is moving at its fastest
CM> at the bottom of its swing, it possesses kinetic energy. When
CM> it finishes the swing to the other limit, it possesses potential
CM> energy. Neglecting losses, potential energy at the top of the
CM> swing is converted into an equal magnitude of kinetic energy at
CM> the bottom of the swing and back to potential energy at the top
CM> of the swing.

Consider the Earth-Moon system, they interact via the oceans on Earth.
The water level bulges can be considered as the pendulum in your
example. The result of the tide is that gravitational energy is being
transfered to the Moon and it is gradually accelerating away from the
Earth. So in your example the pendulum doesn't have any energy except
that which it borrows and returns to the Earth's pull of gravity. If
we were to follow your logic the Moon should fall to the Earth
instead. Assuming frictionless bearings and zero drag your pendulum
should go on forever because it has no energy of its own.

A*s*i*m*o*v

4974. Re: anothr ant tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 21:06:18 UTC
From: dplatt@radagast.org
Message-ID: <11qm5aalocl83f@corp.supernews.com>
Source record: 66271

In article <BdEqf.10126$RZ6.67@bignews7.bellsouth.net>,
RB <rbig@bellsouth.nospam.net> wrote:

>Geee-----we're on a roll! Thanks for good info on my previous query. Now,
>a new one:
>
>Just put a small MFJ -949E tuner into my antenna system.
>
>Thing works great. The only weird thing is I notice the tuning is extremely
>"tight" and "goosey". The slightest movement of the variable caps produces
>jumps in meter readings. Having said that, I can still manage with it.
>
>Years ago, this kind of tuning effect was from hand capacity, when just
>about everything in the shack was RF hot.
>
>However, this isn't what we're dealing with here. Once my controls are set,
>touching around the tuner anywhere doesn't alter anything. So, it's not
>hand capacity/coupling.
>
>What is this effect indicative of? Just curious.

Any of several things.

This could indicate that your caps have noisy (dirty or oxidized or
burned) sliding contacts to the stator.

It could indicate that the caps have a somewhat "sticky" bearing
arrangement, which is subject to both stiction and some amount of
backlash and overshoot.

It could indicate that you are attempting to tune a highly reactive or
otherwise-difficult load, and have one or both of the caps set to a
low-mesh (and thus high-reactance) setting. If the rotor and stator
plates in those caps have the same radius throughout (I can't tell
from the picture), then when the caps are mostly un-meshed, a very
small change in the position of the rotor can make a proportionally-
large change in capacitance and change the reactance (and thus the
matching) quite a lot.

There can be a definite advantage to using air-variable caps which
have plates (on either the rotor or stator) which are tapered in
radius, from one end of the rotation to the other... it makes the
adjustments at the mostly-unmeshed, low-capacitance end rather less
critical. Take a look at a typical "broadcast variable" capacitor
from an older AM radio set, and you'll probably see this sort of
construction.

With a C-L-C T-match tuner, it's usually possible to achieve a match at several different settings of the controls. If you've achieved a match, and find that both of the caps are set up to a fairly-far-unmeshed setting, try switching the inductor down to the next-lower inductance setting, and then tweaking both caps in the direction of greater mesh (more capacitance, lower reactance). This may boost your tuner's electrical efficiency, and may also make the tuning less critical and "jumpy".

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

4975. Re: anothr ant tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 21:09:10 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <Xu6dnQgbD71riDbeRVn-pA@comcast.com>
Source record: 66272

RB wrote:
> Geee-----we're on a roll! Thanks for good info on my previous query. Now,
> a new one:
>
> Just put a small MFJ -949E tuner into my antenna system.
>
> Thing works great. The only weird thing is I notice the tuning is extremely
> "tight" and "goosey". The slightest movement of the variable caps produces
> jumps in meter readings. Having said that, I can still manage with it.
>
> Years ago, this kind of tuning effect was from hand capacity, when just
> about everything in the shack was RF hot.
>
> However, this isn't what we're dealing with here. Once my controls are set,
> touching around the tuner anywhere doesn't alter anything. So, it's not
> hand capacity/coupling.
>
> What is this effect indicative of? Just curious.

I suspect it is caused by an effective Hi-Q load on the antenna side of
the tuner. That could be a high reaactive component or a low resistive
component of the input impedance to the coax.

What kind of antenna and transmission line are you using?

I run a 140 foot long center fed doublet withh 600 ohm open wire tuned
feeders and observe the same type of indications on 60 meters. The
resistive component of the input impedance is 10 ohms with 15 ohms of
inductive reactance. It's not a problem, just sharp tuning.
>
>

4976. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 21:16:27 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <4-GdnaboZfQ2ijbeRVn-rw@comcast.com>
Source record: 66273

Asimov wrote:

> "Cecil Moore" bravely wrote to "All" (22 Dec 05 14:47:46)
> --- on the heady topic of "Re: Antenna reception theory"
>
> CM> From: Cecil Moore <mycall@arrl.net>
> CM> Xref: core-easynews rec.radio.amateur.antenna:221698
>
> CM> Asimov wrote:
> > If I can manage to roll the boulder up at the top or at the bottom of
> > the cliff, I will find it weighs about the same. The boulder only
> > picks up energy as it is accelerating towards the foot of the cliff.
>
> CM> Energy cannot be created or destroyed. The kinetic energy gained
> CM> as it accelerates is exactly balanced by the loss in potential
> CM> energy that it had at the top of the cliff.
>
> CM> Consider a pendulum. When it stops at the limit of its swing,
> CM> it possesses potential energy. When it is moving at its fastest
> CM> at the bottom of its swing, it possesses kinetic energy. When
> CM> it finishes the swing to the other limit, it possesses potential
> CM> energy. Neglecting losses, potential energy at the top of the
> CM> swing is converted into an equal magnitude of kinetic energy at
> CM> the bottom of the swing and back to potential energy at the top
> CM> of the swing.
>
> Consider the Earth-Moon system, they interact via the oceans on Earth.
> The water level bulges can be considered as the pendulum in your
> example. The result of the tide is that gravitational energy is being
> transfered to the Moon and it is gradually accelerating away from the
> Earth. So in your example the pendulum doesn't have any energy except
> that which it borrows and returns to the Earth's pull of gravity. If
> we were to follow your logic the Moon should fall to the Earth
> instead. Assuming frictionless bearings and zero drag your pendulum
> should go on forever because it has no energy of its own.
>
> A*s*i*m*o*v

A*s*i*m*o*v, Man you gotta be kidding !!!!!! The tides are responding
to the gravitational reaction of the earth-moon gravitational system;
not causing them!!!!!!!!

Yep, in the absence of centripetal acceleration the moon would crash.
But, isn't nature wonderful!! The moon has just enough centripetal
acceleration to keep it from falling into the earth. The sum of forces

on the moon keep it from flying into space or from falling to earth.

As I said in a previous post; You need to refresh your University Physics 101.

AK

4977. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 21:33:54 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <jt5mq1l3c8tapsbv4816gbbka0go1e5dh0@4ax.com>
Source record: 66274

On Thu, 22 Dec 2005 15:07:45 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> Lots of people operate feedlines at high VSWR by design, and they do
>> not necessarily cause TVI.
>
>Here's one example where a high VSWR might cause more TVI.
>

Your example suggests a simplified method of analysing the effectiveness of a balun in reducing common mode current under two different load scenarios (that happen to have a transmission line operating at different VSWR).

If the line length of your example was an even number of quarter waves, then by your own analysis method, in the second case, the balun with 50 ohm load and "3000 ohm choking impedance" would be more effective at 12:1 VSWR than the flat line?

So that goes to the meaning of "high VSWR *might* cause more TVI". Perhaps there is some other factor, and perhaps VSWR is not a root cause at all.

There is nothing in what you have said that suggests to me that VSWR is the cause of TVI (or feedline radiation in the more general case).

Owen
--

4978. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 21:49:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dof71r$nt6$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66275

Roy, you are, at least, on the right track.

To measure SWR on the feedline, it is necessary to climb up the mast
or a ladder and insert an SWR meter, of the correcct impedance,
between the antenna and the feedline?

Then you have to come down safely to ground level, switch on the
transmitter, and view the meter reading through an astronomical
telescope, bearing in mind that the field of view with an astronomical
telescope is inverted with respect to normal.

In its usual position the SWR meter does not measure SWR on any line.
It merely indicates whether or not the transmitter is correctly loaded
with a resistive 50 ohms. Which is all anyone may wish to know.

After 50 years or more of ignorance, it is about time this hoax was
exposed to the world.

Then, all that is necessary to prevent the instrument from telling
lies, is to leave it where it is and change its name to TLI
(Transmitter Loading Indicator).

Reg, G4FGQ.

4979. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 22:24:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qm9slee4e1kf2@corp.supernews.com>
Source record: 66176

Reg Edwards wrote:
> Roy, you are, at least, on the right track.
>
> To measure SWR on the feedline, it is necessary to climb up the mast
> or a ladder and insert an SWR meter, of the correcct impedance,
> between the antenna and the feedline?

No. You can insert the SWR meter of the correct impedance at the input end of the feedline. Stay inside, nice and warm. Of course, if your line has a significant amount of loss, the SWR will vary along the line, so you'll have to put the meter at the point where you want to know the SWR.

> Then you have to come down safely to ground level, switch on the
> transmitter, and view the meter reading through an astronomical
> telescope, bearing in mind that the field of view with an astronomical
> telescope is inverted with respect to normal.

That's surely a novel way of doing it, although unnecessary. On the one hand, that method might seem more plausible after finishing off a bottle of wine. On the other, that would be a bad time to be climbing the mast.

> In its usual position the SWR meter does not measure SWR on any line.
> It merely indicates whether or not the transmitter is correctly loaded
> with a resistive 50 ohms. Which is all anyone may wish to know.
>
> After 50 years or more of ignorance, it is about time this hoax was
> exposed to the world.
>
> Then, all that is necessary to prevent the instrument from telling
> lies, is to leave it where it is and change its name to TLI
> (Transmitter Loading Indicator).

Have you had any luck in selling Agilent (HP), Narda, Anritsu, and those other ignorant companies into not specifying the input impedances of their precision RF measurement equipment, terminations, and other components in terms of SWR? Once you get them to see the light, hams will surely enlist in your jihad. Otherwise, we'll have postings from hams that go something like this:

"My TLI says my precision termination resistor has an impedance of 1.02 Reggies. But the manufacturer specifies a maximum SWR of 1.05:1. Is it ok? Reg says there are 6 dB in an S-Unit, so are there 6 SWRs to a Reggie?"

Roy Lewallen, W7EL

4980. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 22:42:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dofa4s$sd6$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66177

"Reg Edwards" wrote
> Then, all that is necessary to prevent the instrument from telling
> lies, is to leave it where it is and change its name to TLI
> (Transmitter Loading Indicator).
==========

This will have the effect of reducing SWR on the line to a more
appropriate and realistic level of importance.

Who cares what is the SWR on the transmission line provided the
transmitter is loaded with its correct load resistance?

Reg, G4FGQ.

4981. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 22:47:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qmb7efhmg451d@corp.supernews.com>
Source record: 66178

Reg Edwards wrote:
> "Roy Lewallen" wrote
>
>>A ferrite loop
>>antenna simply has better efficiency than a standard loop of the
>
> same
>
>>physical size. Hence it has better gain or capture area.
>
> ==
>
> It's only a minor point, but when a ferrite core is placed inside a
> loop the efficiency remains the same. It's the same wire, the same
> coil dimensions, and hence the same loss in the resistance.
>
> If anything happens to efficiency it is reduced due to a loss in the
> ferrite core material.
>

Sorry, that's not true. When the ferrite core is inserted, the loss resistance stays the same, as you say. But the radiation resistance increases, resulting in increased efficiency.

> What happens is that the effective cross-sectional area of the loop
> increases approximately in proportion to the permeability of the core.
> For small permeabilities the capture area is much increased.

This is a good illustration of why I don't like using "capture area" for antennas of small dimensions -- even Reg gets the mistaken idea that physical or effective physical area is directly related to capture area. For some antennas, like horns and ones with a parabolic reflector, it is. But for simple, small antennas, it isn't. The effective aperture (capture area) of a small loop is 3 * lambda^2 / (8 * pi) where lambda is the wavelength, for a loop of any size as long as it's electrically small enough to have essentially uniform current. Notice that the capture area doesn't increase as the loop size increases as long as the current is essentially uniform. This is, in fact, exactly the same thing that happens for a short dipole. Making a loop larger (or short dipole longer) decreases the radiation resistance which in the presence of inevitable loss, increases the efficiency. But if you could make a lossless loop or dipole, you couldn't get any more power out of it by increasing its size, again with the restriction that the current remains essentially uniform, or for a dipole that the length is very short compared to a wavelength. (The above discussion assumes that effective

aperture and capture area don't include the effect of loss. This is the assumption commonly used in texts.)

> But for
> larger permeabilities, say above 100, the effect diminishes and the
> effective core permeability settles down to the order of 20 or 30. It
> depends on the ratio of length to diameter of the core rather than of
> the coil.
>
> To visualise, it should be remembered most of the magnetic circuit
> lies in the air between and near the ends of a ferrite rod. There is
> no point in increasing permeability of rod material beyond a certain
> amount in an attempt to increase capture area.

Again, adding the ferrite improves efficiency by reducing radiation resistance, not by increasing capture area.

> . . .

Roy Lewallen, W7EL

4982. Re: Passive reradiating antenna - correction

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 23:19:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qmd3kko2j6j84@corp.supernews.com>
Source record: 66179

Roy Lewallen wrote:
> . . .
> Making a loop larger (or short dipole
> longer) decreases the radiation resistance which in the presence of
> inevitable loss, increases the efficiency. . .

That should be *increases* rather than decreases.

Roy Lewallen, W7EL

4983. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-22 23:25:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dofclm$h1i$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66180

Your reply was very fast. You didn't have time to think about it.

The only way to "measure" SWR is to place the meter at the antenna end
of the line. You know that as well as I do.

The SWR does not apply to any particular point on the line. It applies
to the WHOLE line.

Reg, G4FGQ.

4984. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 00:07:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qmfuvged5rf16@corp.supernews.com>
Source record: 66181

Reg Edwards wrote:

>. . .

> The only way to "measure" SWR is to place the meter at the antenna end
> of the line. You know that as well as I do.
>
> The SWR does not apply to any particular point on the line. It applies
> to the WHOLE line.

I disagree with both of those statements, and both can be shown to be incorrect.

If a line is lossless, the SWR is the same all along the line. An SWR meter of the line's impedance will measure the SWR correctly when placed anywhere along the line, including at either end.

If a line has loss, the SWR varies along the line, being the greatest at the load and decreasing toward the source. (The concept of SWR at a single point is well understood and widely used and accepted, even though it deviates from the original literal definition.) In that case, the meter will correctly read the SWR at the position where it's placed. That position can be anywhere along the line including either end.

Roy Lewallen, W7EL

4985. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 00:38:07 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o6hmq15nm8uaa1n6jjafq35a01ie4mlisk@4ax.com>
Source record: 66182

On Thu, 22 Dec 2005 16:07:56 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>If a line has loss, the SWR varies along the line, being the greatest at
>the load and decreasing toward the source. (The concept of SWR at a
>single point is well understood and widely used and accepted, even
>though it deviates from the original literal definition.) In that case,
>the meter will correctly read the SWR at the position where it's placed.
>That position can be anywhere along the line including either end.

... and for most practical purposes, with knowledge of the matched
line loss, the VSWR at any other point on that line can be estimated
with reasonable accuracy from the measurement at a point on the line.

Owen
--

4986. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 01:41:51 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <zBIqf.1579$nu6.1188@newsread1.news.pas.earthlink.net>
Source record: 66183

Well, I think this thread went a bit beyond where I had intended (expected?), but it looks like it's provided some useful discussions, as it did me. Here's kind of a twist on all this.

I went back to my very old physics book to see what they had to say about standing waves. Actually, I had more fun reading about waves created by a string attached to various objects at the remote end. The authors considered a case with an infinite mass at the end, and another with the end of the string fastened to a ring, which was place on a pole. Finally, they discussed what would happen if another string followed the first and the second the string was denser or less dense than the string on which the wave begin. Another time. :-)

Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

"He who laughs, lasts." -- Mary Pettibone Poole
--

Web Page: <home.earthlink.net/~mtnviews>

4987. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 01:49:48 UTC
From: "W. Watson" <wolf_tracks@invalid.com>
Message-ID: <0JIqf.1583$nu6.686@newsread1.news.pas.earthlink.net>
Source record: 66184

I forgot to mention the physics book even got into something called virtual waves, which I believe are the mirror image of an incident wave. The mirror is perpendicular to the travel, and one can look down it from the side.

Wayne T. Watson (Watson Adventures, Prop., Nevada City, CA)
(121.015 Deg. W, 39.262 Deg. N) GMT-8 hr std. time)
Obz Site: 39ï¿½ 15' 7" N, 121ï¿½ 2' 32" W, 2700 feet

"He who laughs, lasts." -- Mary Pettibone Poole
--

Web Page: <home.earthlink.net/~mtnviews>

4988. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 02:47:24 UTC
From: The Eternal Squire <eternalsquire@hotmail.com>
Message-ID: <1135306044.877301.21990@g44g2000cwa.googlegroups.com>
Source record: 66185

Oh, come on....

In engineering literature an SI measurement is generally given as a number followed by the abbreviated unit in braces: 330 [cm] = 33 [m] = 3.3 [km]

Sorry for being slipshod and forgetting the braces.

The Eternal Squire

P.S. Why Santa got pulled over: 3E8 [km/s], not just a good idea, its the LAW!!!!

4989. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 02:53:17 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11qmpin540olsbe@corp.supernews.com>
Source record: 66186

Dear Owen:
As I recall, very early in The Republic's life, the use of the metric system was made legal.

Rods, chains, links, feet, inches, and degrees are bound to legal descriptions of land here in The Republic in a manner that is likely to be permanent. Some land descriptions sound like this:

The east half of the NE quarter of section 24, T16N, R8W. This describes 80 acres in the corner of a specific section (one mile on each side) in the 16th township north of a reference and the eighth west of a reference. An ideal township is 36 square miles (6 by 6 miles).

Out East, some descriptions reference objects that have not been seen for a few hundred years. Precision GPS and its required antennas will, with time and care, change the some properties are described.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Owen Duffy" <owen@no.where>

<snip>
>
> Reg, I think the US was one of the relatively early signatories to the
> metre convention, but reserved the position to spell "metre" as
> "meter".
>
> I can't recall when the UK signed the convention, my recollection is
> that we in VK signed it much later than both, however we metricated
> earlier than the UK, and the US hasn't metricated (metericated???) in
> the true sense of the word.
>
> I don't miss the days of rods roods poles perches chains etc, without
> mentioning other dimensional units.
>
<snip>
> Owen
> --

4990. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 03:24:56 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <jcrmq198f7o3n3k8fptds5635jlr5ebo43@4ax.com>
Source record: 66187

On 22 Dec 2005 13:53:30 -0600, mcalhoun@ksu.edu wrote:

>>I am installing a short tower. The soil is very dry, mostly volcanic ash
>>and low conductivity. I had the backhoe operator drill several holes 4
>>feet deep for grounding. It is impossible to drive a ground rod deeper
>>than 4 feet due to bedrock. What should I use to fill the holes after
>>the ground rods are installed?
>
>Do a web-search for "bentonite" and "ground", and you'll learn lots!
>
>Although I've never used it (but I'm going to start!), "bentonite" is
>the appropriate stuff to use. When wet, it expands inward to squeeze
>the ground rod and outward to press firmly against the soil, thereby
>resulting in (effectively) a very large-diameter ground well-connected
>to the soil.
>
>Clumping-type kitty-litter is supposedly bentonite (a clay material),
>so it should be relatively cheap.

Hi Myron, how are you these days? If I recall, bentonite is used in
the oil patch as a slurry to seal the drill hole. It is called
drilling mud in that context. It should be pretty cheap!

Russ

4991. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 04:08:51 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <e9f7$43ab7875$97d56a33$31968@ALLTEL.NET>
Source record: 66188

I would consider 33[m]=3.3[km] is even more slipshod...

"The Eternal Squire" <eternalsquire@hotmail.com> wrote in message
news:1135306044.877301.21990@g44g2000cwa.googlegroups.com...
> Oh, come on....
>
> In engineering literature an SI measurement is generally given as a
> number followed by the abbreviated unit in braces: 330 [cm] = 33 [m]
> = 3.3 [km]
>
> Sorry for being slipshod and forgetting the braces.
>
> The Eternal Squire
>
> P.S. Why Santa got pulled over: 3E8 [km/s], not just a good idea, its
> the LAW!!!!
>

4992. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 04:16:31 UTC
From: Crazy George <gfm99@attglobal.net>
Message-ID: <43ab7ab2@kcnews01>
Source record: 66190

.
"Cecil Moore" <mycall@arrl.net> wrote in message
news:5Uoqf.43886$6e1.2147@newssvr14.news.prodigy.com...
> W. Watson wrote:
>> A standing wave is the sum of an incident added to the reflective wave.
>> Isn't it possible to send two incident waves down an xline with different
>> frequences, and produce two different standing waves by having some
>> multiplicative relationship between the two incident waves and the xline
>> length?
>
> Sure, it's possible but one wonders about the application.

Cecil:

Think about a 6 MHz wide analog TV channel. Those antennas aren't flat, and there are 2 transmitters, visual and aural. Putting an analog TV station on the air the first time, particularly low VHF, is a real interesting exercise. Or at least it was back in the stone (vacuum tube) age, the last time I did one.

73,
George
W5VPQ
My real address is my ham call <at>ARRL.NET The ATTGlobal is a SPAM trap
>

<snip>

4993. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 04:17:01 UTC
From: Dan Richardson <>
Message-ID: <tgumq15958s6jlq9v2pka0827s70ri226o@4ax.com>
Source record: 66189

On Fri, 23 Dec 2005 03:24:56 GMT, Russ <carlzomer@hotmail.com> wrote:

>Hi Myron, how are you these days? If I recall, bentonite is used in
>the oil patch as a slurry to seal the drill hole. It is called
>drilling mud in that context. It should be pretty cheap!

It is also used in sand foundries in their molding sand.

Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

4994. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 04:34:00 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Y6Lqf.9766$Dd2.2946@newsread3.news.atl.earthlink.net>
Source record: 66191

"Cecil Moore" <mycall@arrl.net> wrote in message
news:5Uoqf.43886$6e1.2147@newssvr14.news.prodigy.com...
> W. Watson wrote:
> > A standing wave is the sum of an incident added to the reflective wave.
> > Isn't it possible to send two incident waves down an xline with
> > different frequences, and produce two different standing waves by having
> > some multiplicative relationship between the two incident waves and the
> > xline length?
>
> Sure, it's possible but one wonders about the application.
>

Some repeaters use one antenna for two repeaters on 144 and 440 mhz.
Comercial transmitters do this all the time. Usually the transmitters are
in the same band.

4995. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 04:40:30 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <hrvmq1h91pt8vr3qkn13f4eeebns6c57rv@4ax.com>
Source record: 66193

On Thu, 22 Dec 2005 06:56:50 -0500, Amos Keag <A.K01@comcast.net>
wrote:

>Owen Duffy wrote:
>
>> SNIPPED
>
>>
>>
>> Give some people 25.4mm and they will take 16,609.344m! (Lost
>> something in the translation I suspect!)
>>
>> Owen
>> --
>
>Hmmm ... 16,609.344m = 10 miles does it not??

No, it is not. The mistake is the repeated 6, it should have been
1,609.344m.

Apologies... Owen
--

4996. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 04:41:18 UTC
From: The Eternal Squire <eternalsquire@hotmail.com>
Message-ID: <1135312878.062374.259070@o13g2000cwo.googlegroups.com>
Source record: 66192

I'm tired, and my fingers were running away from me.

The Eternal Squire

4997. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 04:44:05 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <010nq15qf7prillnbd1sdcqsgv3vt5hs6l@4ax.com>
Source record: 66194

On 22 Dec 2005 18:47:24 -0800, "The Eternal Squire"
<eternalsquire@hotmail.com> wrote:

>P.S. Why Santa got pulled over: 3E8 [km/s], not just a good idea, its
>the LAW!!!!

Wow, that is 1000 times the speed of light!
--

4998. Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 07:05:36 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <SkNqf.41400$ih5.2551@dukeread11>
Source record: 66195

I am new in ham radio and want to get set up to make the coax assemblies I will inevitably be needing in the future. I am planing on using only LMR style coax 240, 400, 600 and maybe some 900 if I get into the 1.2ghz stuff. So is it better to use the crimp, clamp or solder on connectors. In the case of the center conductor, there are some where that is solder and the outer is crimp or clamp so is crimp and or clamp ok for the outer conductor and solder better for the inner? I welcome all points of view on this. Thanks for you input.

--
Chris W
KE5GIX

Gift Giving Made Easy
Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4999. Re: Program GRNDWAV4

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 10:06:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qnj1btnnk8ie7@corp.supernews.com>
Source record: 66196

Frank wrote:
>
> Not sure I really understand what is going on, but have been aware of your
> previous postings, also on the NEC-list. What I should have said is that
> the above program agrees with Reg's previous assumption -- but not with his
> new program "grndwav4.exe". In any case, just to satisfy my curiosity, I
> ran the following code, which is, in essence, almost identical to your
> NEC-list post with 5.555.... kW input producing 1V/m peak at 1000m. The
> following agrees exactly with Reg's new program.
>
> CM Short Monopoles
> CE
> GW 1 50 0 0 1 0 0 0 0.000814
> GW 2 50 1000 0 1 1000 0 0 0.000814
> GS 0 0 1
> GE 1
> GN 1
> EX 0 1 50 00 65698.12106 0.00000
> LD 4 2 50 50 1.747 823.796
> FR 0 3 0 0 19.9 0.1
> RP 1 1 360 0000 0 0 1.00000 1.00000 1000
> RP 0 181 1 1000 -90 45 1 1
> EN
>
> Noting the comments by others, obviously familiar with ATR measurement
> techniques, this exercise with NEC is purely academic. There is no way you
> could experimentally prove these results. Since I have never made
> measurements on an "Open-air" test site it will be interesting to verify
> Mac's assumptions, which I am sure are correct.
>
> The confusions I have are now related to the fact that NEC results depend on
> how the incident E-field is generated. I will check all previous posting by
> Roy to see if I can figure out this anomaly. For some reason I have not
> received any update concerning the NEC list postings.
>

I've just now finally gotten around to posting a response to the
NEC-list. It might help clarify things for you.

The essential point is that when you specify a plane wave source, it
acts like a plane wave of the specified amplitude coming from the
specified direction. That wave interacts with the ground plane just as
any other field would. When a ground plane is specified, the result is a
field strength -- and polarization -- which isn't generally the same as
that of the original wave. You can illustrate this by specifying a plane

wave which originates at an angle of 45 degrees above the horizon, and looking at the current induced in a short circuited vertical wire or the base voltage of an open circuited wire (the latter simulated by putting a high impedance load at the base). Begin with the wire vertical, then tilt the wire so the direction of the plane wave source is broadside to the wire, and again so the direction of the source is in line with the wire. You'll get the same result from the last two tests, and the induced current or voltage in those two is less (by about 1/sqrt(2)) than when the wire is vertical. This shows that the field is purely vertically polarized (normal to the ground plane) at the location of the wire. (I think there's actually a small horizontal component except exactly at the ground plane surface.) It does show conclusively that the orientation of the field isn't the same as it was when it left the source -- otherwise the induced current or voltage would be greatest when the wire was tilted broadside to the plane wave source and zero when tilted in the source direction.

So the interaction of the plane wave source's field with the ground plane alters both the amplitude and the polarization of the field. When the source is in the horizontal direction and the ground plane is perfect, the field strength just above the ground plane is exactly twice the amplitude of the plane wave source. So a 1 V/m plane wave source at zero elevation angle (90 degree zenith angle) produces 2 V/m just above the ground plane, which induces 1 V at the base of an open circuited electrically short 1 m vertical wire.

Roy Lewallen, W7EL

5000. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 11:22:03 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <v5Rqf.148$801.29@newssvr30.news.prodigy.com>
Source record: 66197

Chris,
Solder.
'Doc

5001. Re: To Reg Edwards et al: Questions On Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 12:06:58 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <jppnq192bt219k43nstids0sjmi2b59qh9@4ax.com>
Source record: 66198

On Thu, 22 Dec 2005 07:27:19 -0500, "Robert11" <rgsros@notme.com>
wrote:

>Hello, and aHappy Holidays,
>
>Thanks for taking the time to reply to my questions re Slopers.
>Am pretty new at this, and find antennas a fascinating, and quite confusing,
>subject.
>Lots to learn, but fun doing so.
>
>Have a JRC 545 which I really love, but obviously am not using to its full
>potential.
>Just have a random length wire running around my attic.
>Do listening only, from 30 MHz on down. Would really want something very
>close to omni for antenna.
>
>Once it warms up a bit, I plan on putting up outside either a PAR SWL-EFL
>end fed in an Inverted-L configuration,
>or possibly an Alpha Delta, or similar, Sloper.

About 15 years ago, I put up the Alpha Delta swl sloper, hooked to a
JRC NRD 525. That was an excellent combination; strong signals. This
particular antenna is quite heavy duty, and may be a good choice for
your snowy conditions.

Have a happy...

bob
k5qwg

>
>My thinking right now is for the PAR as an Inverted-L.
>
>Would like to ask if you have any thoughts on the PAR ?
>
>a. e.g., in practice, is it also omni, or should I try and orient it ?
>If so, is it most sensitive perpendicular to the horiz. wire axis ?
>
>b. what would be the best ratio between the horiz. and vert. legs ?
>
>c. I guess the end of the vertical leg should be very, very close to the
>Balun and ground
>bar I'll be putting in. But, how does one handle 4' snow drifts getting
>over the Balun, etc. Is this Coax Sealer product good enough ?
>Or, should I just raise the end about 4' and run some braid from the Balun
>to the ground bar ?

>
>You seem very knowledgeable on all of this "black magic" so any other hints
>or opinions
>re the PAR, or mtg and using it, would be most appreciated.
>
>Thanks, and best regards,
>Bob
>------------------
>For practical receiving purposes, a sloping wire, in the midst of
>buildings, can be considered to be omi-directional, even isotropic.
>Any variations in directivity, in either the vertical or horizontal
>planes, although they exist, are not measurable or noticeable. The
>random effect of the presence of a nearby building or buildings is
>greater than the direction in which the wire may or may not slope
>

5002. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 12:12:20 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <46qnq1lgk6o72105goronkk8lo8pkttv22@4ax.com>
Source record: 66199

On Fri, 23 Dec 2005 01:05:36 -0600, Chris W <1qazse4@cox.net> wrote:

>I am new in ham radio and want to get set up to make the coax assemblies
>I will inevitably be needing in the future. I am planing on using only
>LMR style coax 240, 400, 600 and maybe some 900 if I get into the 1.2ghz
>stuff. So is it better to use the crimp, clamp or solder on
>connectors. In the case of the center conductor, there are some where
>that is solder and the outer is crimp or clamp so is crimp and or clamp
>ok for the outer conductor and solder better for the inner? I welcome
>all points of view on this. Thanks for you input.

As Doc said, solder.

Get a Weller SP-120 soldering iron. It's 120 watts. About $46. You can
typically find it by Googling.

You'll need that kind of heat to solder coax connector outer shells to
the braid. Get the ARRL Handbook, and look at their pages on soldering
coax connectors.

Bob
k5qwg

5003. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 13:51:42 UTC
From: "Chuck S." <chuckwa3iac@verizon.net>
Message-ID: <OhTqf.85542$fY5.24370@trnddc02>
Source record: 66200

Clamp types have cause me problems over the years, stay away from them. Crimp type work ok in the shack but not out side for a long time. Solder it by far the best way to go. Another type that works good outside is compression clamps. The ones meant to be used with hard line. They cost more, but unless you like climbing up a 60 foot tower in a contest, they are worth the cost!

Chuck WA3IAC

"Chris W" <1qazse4@cox.net> wrote in message
news:SkNqf.41400$ih5.2551@dukeread11...
>I am new in ham radio and want to get set up to make the coax assemblies I
>will inevitably be needing in the future. I am planing on using only LMR
>style coax 240, 400, 600 and maybe some 900 if I get into the 1.2ghz stuff.
>So is it better to use the crimp, clamp or solder on connectors. In the
>case of the center conductor, there are some where that is solder and the
>outer is crimp or clamp so is crimp and or clamp ok for the outer conductor
>and solder better for the inner? I welcome all points of view on this.
>Thanks for you input.
>
>
> --
> Chris W
> KE5GIX
>
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> http://thewishzone.com

5004. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 14:18:30 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <3cmdnefDG-NomzHenZ2dnUVZ_sWdnZ2d@vnet-inc.com>
Source record: 66201

Solder - the only way to go.

Also, check out The WireMan (http://thewireman.com/index.shtml) for coax, connectors and their cat. (Wirebook III) has a real good section on soldering.

K7SAM

5005. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 15:43:29 UTC
From: Luke <pl259_dude@pl259.com>
Message-ID: <43AC1B1F.33D66325@pl259.com>
Source record: 66202

hi Chris,

Welmcome to ham radio, I am sure you will enjoy it
as much as the rest of us have !

Since you are starting out, to solder you just need
the iron, 100-120 watts with chisel tip is just fine,
don't attempt with the lower wattage units, you end
up damaging the coax dielectric and have more problems.

Crimps have their place, but, you will need to buy or
borrow the crimp frame tool along with the correct
dies for the connectors you want to crimp.
This is a lot more expensive then the solder iron.

Be sure to buy and use name brand connectors,
quality is worth the price, you buy it once.
You can get a bag of the cheap ones to practice
with and then use the good Amphenol or other brands.

http://www.amphenolrf.com/products/assemblyInstructions/274.pdf

The above pdf has installation instructions.

73 Luke

5006. Re: Passive reradiating antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 15:44:12 UTC
From: richardharrison@webtv.net
Message-ID: <13158-43AC1B4C-464@storefull-3254.bay.webtv.net>
Source record: 66203

Reg,G4FGQ wrote:
"---when a ferrite core is placed inside a loop the efficiency remains the same. Its the same wire, the same coil dimensions, and hence the same loss in resistance."

Not if the coil is doing the same job. Remember the permeability tuned coils? You insert the core farther into the coil to increase its inductance. The powdered-iron core has a much higher permeability than air. The powdered-iron core gathers and concentrates lines of flux inside the coil. If the iron-cored coil is to resonate at the same frequency as the air-cored coil does, the iron-cored coil must have many fewer turns, and thus it has much less loss. Good design requires a ferrite with low-loss at the frequency.

For a ferrite loopstick antenna, sensitivity is proportional to the length of the ferrite rod and best placement of the coil is squarely in the middle of the ferrite rod.

Best regards, Richard Harrison, KB5WZI

5007. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 16:19:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doh827dne1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66204

Roy, you surprise me. Try a jug of Moonshine.

Placing the SWR meter at the start of the feed-line terminated by the antenna, will tell you NOTHING about the SWR on that line.

It is the antenna input impedance which determines the SWR on the line, and the meter doesn't have the foggiest idea what THAT is.

The unknown antenna impedance is at the other end of a line of unknown length, unknown impedance and unknown loss. Unknown, that is, to the meter.

YOU might have that knowledge. But then you can CALCULATE what the SWR is on the line. Meter readings having been discarded as useless.

I repeat - the meter tells you only whether or not the transmitter is loaded with a resistive 50 ohms. No more and no less. If it is not 50 ohms the ambiguous meter will not even tell you the actual value of Z.

Intoxicated or not, if you insist on a meter reading, there is no alternative to climbing the antenna mast.

Reg, G4FGQ.

PS. The use of SWR by American plug and socket manufacturers to describe unrelated characteristics of their products is a small indication of the abysmal depths to which engineering has descended. Technical specifications are reduced to Camm's Comics. But they look good to the uninitiated.

Reg.
==========

5008. Re: To Reg Edwards et al: Questions On Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 16:36:43 UTC
From: richardharrison@webtv.net
Message-ID: <10106-43AC279B-352@storefull-3252.bay.webtv.net>
Source record: 66206

Bob wrote:
"What would be the best ratio between horiz. and vert. legs?"

Short answer: Zero. All the wire should be vertical for best results.

Try to borrow a copy of ON4UN`s "Low-Band DXing" published by ARRL. Look at page 9-48 for the radiation resistance (good) for an inverted-L with various ratios of horizontal and vertical portions. Mistly, this is a vertical antenna with the forizontal section providing top-loading.

Best regards, Richard Harrison, KB5WZI

5009. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 16:37:17 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <43AC27D5.6764AFA7@shaw.ca>
Source record: 66205

Luke wrote:
>
> hi Chris,
>
> Welmcome to ham radio, I am sure you will enjoy it
> as much as the rest of us have !
>
> Since you are starting out, to solder you just need
> the iron, 100-120 watts with chisel tip is just fine,
> don't attempt with the lower wattage units, you end
> up damaging the coax dielectric and have more problems.
>
> Crimps have their place, but, you will need to buy or
> borrow the crimp frame tool along with the correct
> dies for the connectors you want to crimp.
> This is a lot more expensive then the solder iron.
>
> Be sure to buy and use name brand connectors,
> quality is worth the price, you buy it once.
> You can get a bag of the cheap ones to practice
> with and then use the good Amphenol or other brands.
>
> http://www.amphenolrf.com/products/assemblyInstructions/274.pdf
>
> The above pdf has installation instructions.
>
> 73 Luke

If you follow the amphenol instructions, they omit one thing. Take a little
extra fine grit paper and clean the areas where you will be applying the
solder. It can never be too clean, and there is often a little corrosive
film which you cannot always see with the eye that develops over time.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
----

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

5010. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 16:59:15 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <o7aoq1pt6g939ed8jovtdm6v9qasqhjp8m@4ax.com>
Source record: 66207

On Thu, 22 Dec 2005 16:07:56 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Reg Edwards wrote:
>
> >. . .
>
>> The only way to "measure" SWR is to place the meter at the antenna end
>> of the line. You know that as well as I do.
>>
>> The SWR does not apply to any particular point on the line. It applies
>> to the WHOLE line.
>
>I disagree with both of those statements, and both can be shown to be
>incorrect.
>
>If a line is lossless, the SWR is the same all along the line. An SWR
>meter of the line's impedance will measure the SWR correctly when placed
>anywhere along the line, including at either end.
>
>If a line has loss, the SWR varies along the line, being the greatest at
>the load and decreasing toward the source. (The concept of SWR at a
>single point is well understood and widely used and accepted, even
>though it deviates from the original literal definition.) In that case,
>the meter will correctly read the SWR at the position where it's placed.
>That position can be anywhere along the line including either end.
>
>Roy Lewallen, W7EL

I am absorbing this, but slowly.

I have understood that a "matched line" would indicate the same SWR at
every point you might measure it with a directional coupler. The Swr
we are discussing is that which we can measure with a directional
coupler, is it not?

The SWR on a mis-matched line will vary with the position you choose
to measure it. This can be indicated by varying the transmission line
length to get an acceptable match for the system. This will satisfy
the need to match a transmitter for a given frequency. A directional
coupler placed at different places on the line will still indicate a
non uniform SWR. Any feed line losses due to insulation or radiation
are effectively hidden from the transmitter end.

This is why I have gone to the antenna/feed line to measure the power
level and the SWR. If your feed line has become an effective dummy

load or a better radiator than your antenna it would nice to know.

I don't have an answer as to how to measure the instruments insertion effects.

Please tell me where I am in error!
John Ferrell W8CCW

5011. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 17:10:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dohb1d$lb1$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66208

To all and sundry,

The length and directions and off-shoots of this and other threads,
the resulting arguments, confusion and misunderstandings prove my
basic point -

The SWR meter is grossely mis-named.

It leads old-timers, novices, CB-ers and professional engineers
severely astray. It overstretches imaginations.

Dis-educational!

Reg.

5012. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 17:14:19 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <-8CdnVyNb5_FrTHeRVn-ig@comcast.com>
Source record: 66209

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:46qnq1lgk6o72105goronkk8lo8pkttv22@4ax.com...
> On Fri, 23 Dec 2005 01:05:36 -0600, Chris W <1qazse4@cox.net> wrote:
>
>>I am new in ham radio and want to get set up to make the coax assemblies
>>I will inevitably be needing in the future. I am planing on using only
>>LMR style coax 240, 400, 600 and maybe some 900 if I get into the 1.2ghz
>>stuff. So is it better to use the crimp, clamp or solder on
>>connectors. In the case of the center conductor, there are some where
>>that is solder and the outer is crimp or clamp so is crimp and or clamp
>>ok for the outer conductor and solder better for the inner? I welcome
>>all points of view on this. Thanks for you input.
>
> As Doc said, solder.
>
> Get a Weller SP-120 soldering iron. It's 120 watts. About $46. You can
> typically find it by Googling.
>
> You'll need that kind of heat to solder coax connector outer shells to
> the braid. Get the ARRL Handbook, and look at their pages on soldering
> coax connectors.
>
> Bob
> k5qwg
>
A ~200W soldering gun from Radio Shack or Home Depot will also work fine.

Tam/WB2TT

5013. Re: VHF/UHF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 17:32:09 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <EuWdnZAWjf4YqTHenZ2dnUVZ_vmdnZ2d@comcast.com>
Source record: 66210

<crjunk@earthlink.net> wrote in message
news:1135269946.361185.213430@z14g2000cwz.googlegroups.com...
> Thanks for the info Dave. I've been doing a little research and I'm
> thinking about trying a DB4 antenna to see how it does. I've read some
> post where people said it did well when they set it up inside their
> attic. If the attic doesn't work, they I may see about attaching it to
> the chimney on my house. Maybe this will do the trick.
>
> Doe anyone have any opinion on the DB4 antenna?
>
> CR Junk
>
If it's a 2 story house, I would try something in the attic. I have a Radio Shack $24.99 UHF Corner Reflector Yagi on the vent pipe up on the roof with a rotator and ChannelMaster amplifier. My local stations are 26 - 35 miles away. Most days I also get HDTV from Philadelphia stations 64 miles away. A lot of this is going to depend on how much power the stations are transmitting. The stations I am picking up are 100KW to 700KW. VHF stations will operate with a lot less. The orientation of the house is such that you can not see the TV antenna from the front of the house.

Tam/WB2TT

5014. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 18:34:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dohfv7$l48$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66211

"Reg Edwards" wrote
> Technical specifications are reduced to Camm's Comics. But they look
> good to the uninitiated.
> ==

Insert between "they look good" and "to the uninitiated" -

"and sell".

Reg.

5015. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 18:35:44 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97356C116DC48spectrumhogstarbandn@198.186.192.196>
Source record: 66212

Crimp connectors work just fine when done properly, but I would not use them on anything above 2M. You will find the compression type fittings for larger coax and heliax superior to anything else for microwave work.

But most will probably suggest generally a good soldered connector the best for most apps.

If you have the money, the best iron for soldering coax connectors would be one such as made by American Beauty..... but very pricey. A hefty Weller gun will suffice if funds are limited.

Ed K7AAT

5016. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 18:39:51 UTC
From: dplatt@radagast.org
Message-ID: <11qoh3nq5cvi92@corp.supernews.com>
Source record: 66213

In article <46qnq1lgk6o72105goronkk8lo8pkttv22@4ax.com>,
Bob Miller <NOSPAM@neosoft.com> wrote:

>Get a Weller SP-120 soldering iron. It's 120 watts. About $46. You can
>typically find it by Googling.
>
>You'll need that kind of heat to solder coax connector outer shells to
>the braid. Get the ARRL Handbook, and look at their pages on soldering
>coax connectors.

Another trick: it's usually possible to solder the outer shells into
place with a lower-wattage gun, if you first pre-heat the whole
assembly with a hot air gun (hair dryer might work). This can be
gentler on the coax (and its meltable internal insulation) than just
hitting the shell with a soldering iron and waiting for the shell to
soak up enough heat to allow the solder to melt.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

5017. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 20:01:08 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <WHYqf.41424$ih5.12840@dukeread11>
Source record: 66214

Bob Miller wrote:

>As Doc said, solder.
>
>Get a Weller SP-120 soldering iron. It's 120 watts. About $46. You can
>typically find it by Googling.
>
>
Thanks for the suggestion on the iron, I found it for $40 which isn't
too bad.

>You'll need that kind of heat to solder coax connector outer shells to
>the braid. Get the ARRL Handbook, and look at their pages on soldering
>coax connectors.
>
>
I guess the book you are talking about isn't the antenna book, I can't
find much on soldering in there.

--
Chris W
KE5GIX

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5018. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 20:38:42 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <9fZqf.41426$ih5.7094@dukeread11>
Source record: 66215

Luke wrote:

>hi Chris,
>
>Welmcome to ham radio, I am sure you will enjoy it
>as much as the rest of us have !
>
>Since you are starting out, to solder you just need
>the iron, 100-120 watts with chisel tip is just fine,
>don't attempt with the lower wattage units, you end
>up damaging the coax dielectric and have more problems.
>
>Crimps have their place, but, you will need to buy or
>borrow the crimp frame tool along with the correct
>dies for the connectors you want to crimp.
>This is a lot more expensive then the solder iron.
>
>Be sure to buy and use name brand connectors,
>quality is worth the price, you buy it once.
>You can get a bag of the cheap ones to practice
>with and then use the good Amphenol or other brands.
>
>http://www.amphenolrf.com/products/assemblyInstructions/274.pdf
>
>
Actually I plan on going out of my way to avoid UHF connectors. I plan
on doing a fair amount at 400+ mhz and the UHF connectors don't do well
up there. So about the only place I will be using UHF is at the radio
if I can't find a radio with N connectors. My watt meter has N
connectors and so do my antennas. I'm not sure why anyone would want to
use UHF on anything outside. The only way to protect a UHF from the
weather is with some coax wrap but the N has a seal built in, of course
some kind of wrap as additional protection isn't a bad idea either if it
is done right. In some cases I may even replace the UHF connector in
the radio with an N but only if it is an old radio no longer under warranty.

--
Chris W
KE5GIX

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5019. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 20:48:35 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <qoZqf.41427$ih5.20738@dukeread11>
Source record: 66216

Ed wrote:

> Crimp connectors work just fine when done properly, but I would not use
>them on anything above 2M.
>
Then why is it that Times Microwave only shows how to put on crimp and
clamp connectors on their cables on their web site. On their larger
cables (LMR 900 and up) they only have clamp connectors.

>You will find the compression type fittings
>for larger coax and heliax superior to anything else for microwave work.
>
>
Like I already mentioned, I think that is all you can put on the LMR 900
and up size coax.

> But most will probably suggest generally a good soldered connector the
>best for most apps.
>
> If you have the money, the best iron for soldering coax connectors
>would be one such as made by American Beauty..... but very pricey.
>

I found an 150 watt one for $115, that doesn't seem too bad to me if it
is that much better than others.

http://www.hmcelectronics.com/cgi-bin/scripts/product/0400-0027

One thing I forgot to mention in my first post, where you have to use a
UHF, it seems that for LMR 400, the only option is solder, I could be
looking in the wrong places, but I haven't seen any crimp or clamp on
UHF connectors for LMR 400 only solder. About the only time I plan on
using anything smaller than LMR 400 is for a jumper to hook my hand held
to the big antenna, for that I am going to get some LMR 240 ultra flex.

--
Chris W
KE5GIX

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5020. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 20:56:06 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <tvZqf.41428$ih5.4963@dukeread11>
Source record: 66217

Chuck S. wrote:

>Clamp types have cause me problems over the years, stay away from them.
>Crimp type work ok in the shack but not out side for a long time.
>
If you are going to crimp and use it outside you certainly need to use some good adhesive lined shrink tube to seal it up. I'm curious why no one seems to like crimp. Other than the cost of the tools to do it right it seems like a much easier way to go. Crimping works great for other types of connections. Also I did a lot of browsing on Times Microwave's web site and about all they talk about are crimp and clamp on connectors, for the big cables it is clamp only, I think part of the reason for that is you would probably need a hydraulic crimping tool for those big cables :)

>Solder it
>by far the best way to go. Another type that works good outside is
>compression clamps. The ones meant to be used with hard line. They cost
>more, but unless you like climbing up a 60 foot tower in a contest, they are worth the cost!
>
>

I like those, the only connectors I have put on so far is a solder/clamp N and a solder UHF, the N was a solder on pin, which was pretty easy and then the clamp on outer shell. The only hard part was getting the cable striped cleanly but a good coax stripper should fix that. That is the next thing I plan on buying, I just need to find a good one.

--
Chris W
KE5GIX

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5021. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 20:58:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qop79kg3qr274@corp.supernews.com>
Source record: 66218

John Ferrell wrote:
>
> I am absorbing this, but slowly.
>
> I have understood that a "matched line" would indicate the same SWR at
> every point you might measure it with a directional coupler.

A matched line is one which is terminated with its characteristic impedance. The SWR on a matched line is 1:1 at all points along the line.

> The Swr
> we are discussing is that which we can measure with a directional
> coupler, is it not?

Yes and no. To measure the SWR requires an SWR meter or directional coupler which is designed for the particular characteristic impedance of the line. If a directional coupler is the proper impedance, it can be used to calculate the SWR from the forward and reverse powers. If it isn't, it can't.

> The SWR on a mis-matched line will vary with the position you choose
> to measure it.

No, it won't, unless it has loss. If it has loss, the SWR will be greatest at the load and will monotonically decrease toward the source.

> This can be indicated by varying the transmission line
> length to get an acceptable match for the system. This will satisfy
> the need to match a transmitter for a given frequency. A directional
> coupler placed at different places on the line will still indicate a
> non uniform SWR. Any feed line losses due to insulation or radiation
> are effectively hidden from the transmitter end.

It appears that you're assuming that what you measure with an SWR meter or calculate from directional coupler readings is the SWR. Unless the coupler or meter is designed for the Z0 of the line, it isn't. If the coupler or meter isn't of the proper impedance for the line, you'll get different readings as you move along the line. Those readings aren't, however, the line's SWR.

>. . .

Roy Lewallen, W7EL

5022. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 20:59:21 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <yyZqf.41429$ih5.39430@dukeread11>
Source record: 66219

I forgot to bring up resistive soldering, does any one use one of
those? I guess if I get a big iron that will work good. I used a 140
watt gun for the UHF connector I did first, I hear the big irons work
better because of the larger thermal mass, I may try the heat gun trick
too. I have a small heat gun that will get up to 200 and something F or so.

--
Chris W
KE5GIX

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5023. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 21:13:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qoq46qkkfco08@corp.supernews.com>
Source record: 66220

This is pretty strange.

Suppose Reg has a 50 ohm line of some length connected to an antenna whose impedance is 100 + j0 ohms. After putting away his evening's bottle of wine, he climbs the tower and inserts a 50 ohm SWR meter at the antenna. He climbs back down, gets out his vintage brass telescope and keys the transmitter. Then, steadying himself, he peers through the telescope and sees that the SWR meter reads 2:1. (Being a clever person, he mounted the meter upside down so it would be right side up in the telescope, obviating the need for the added challenge of mental inversion.)

I have an identical antenna, feedline, and SWR meter. I sit in my warm shack sipping my moonshine, connect the SWR meter to the input end of the line, hit the key, and note that the meter reads 2:1. Or perhaps slightly less if the line is noticeably lossy.

Reg says:

> Placing the SWR meter at the start of the feed-line terminated by the
> antenna, will tell you NOTHING about the SWR on that line.

I guess the 2:1 reading from the meter at the input end of the line is telling Reg nothing, while the 2:1 reading at the antenna is. Strange. The fact is that it's the SWR on the line, and it can be measured at any point along the line. I like my method better, but each to his own.

Roy Lewallen, W7EL

Reg Edwards wrote:
> Roy, you surprise me. Try a jug of Moonshine.
>
> Placing the SWR meter at the start of the feed-line terminated by the
> antenna, will tell you NOTHING about the SWR on that line.
>
> It is the antenna input impedance which determines the SWR on the
> line, and the meter doesn't have the foggiest idea what THAT is.
>
> The unknown antenna impedance is at the other end of a line of unknown
> length, unknown impedance and unknown loss. Unknown, that is, to the
> meter.
>
> YOU might have that knowledge. But then you can CALCULATE what the SWR
> is on the line. Meter readings having been discarded as useless.
>
> I repeat - the meter tells you only whether or not the transmitter is
> loaded with a resistive 50 ohms. No more and no less. If it is not

> 50 ohms the ambiguous meter will not even tell you the actual value of
> Z.
>
> Intoxicated or not, if you insist on a meter reading, there is no
> alternative to climbing the antenna mast.
> ----
> Reg, G4FGQ.
>
> PS. The use of SWR by American plug and socket manufacturers to
> describe unrelated characteristics of their products is a small
> indication of the abysmal depths to which engineering has descended.
> Technical specifications are reduced to Camm's Comics. But they look
> good to the uninitiated.
> ----
> Reg.
> ==
>
>

5024. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 21:36:10 UTC
From: "Chuck S." <chuckwa3iac@verizon.net>
Message-ID: <e5_qf.2459$y04.1817@trnddc02>
Source record: 66221

One thing I should have said was that I use ONLY "N" connectors from 144 to 1296. I read, maybe in this group, that UHF connectors are ok to 500MHz. Like I said, I don't use them above 144MHz. and I know some hams that don't use UHF connectors on 6 meter. Above 2304 I use SMA's and WG on 24GHz. I'm getting off track, solder is the best way to go for UHF, or use whatever "N" connector Time recommends for their cables.

"Chris W" <1qazse4@cox.net> wrote in message
news:tvZqf.41428$ih5.4963@dukeread11...
> Chuck S. wrote:
>
>>Clamp types have cause me problems over the years, stay away from them.
>>Crimp type work ok in the shack but not out side for a long time.
> If you are going to crimp and use it outside you certainly need to use
> some good adhesive lined shrink tube to seal it up. I'm curious why no
> one seems to like crimp. Other than the cost of the tools to do it right
> it seems like a much easier way to go. Crimping works great for other
> types of connections. Also I did a lot of browsing on Times Microwave's
> web site and about all they talk about are crimp and clamp on connectors,
> for the big cables it is clamp only, I think part of the reason for that
> is you would probably need a hydraulic crimping tool for those big cables
> :)
>
>>Solder it by far the best way to go. Another type that works good outside
>>is compression clamps. The ones meant to be used with hard line. They cost
>>more, but unless you like climbing up a 60 foot tower in a contest, they
>>are worth the cost!
>>
>
> I like those, the only connectors I have put on so far is a solder/clamp N
> and a solder UHF, the N was a solder on pin, which was pretty easy and
> then the clamp on outer shell. The only hard part was getting the cable
> striped cleanly but a good coax stripper should fix that. That is the
> next thing I plan on buying, I just need to find a good one.
>
> --
> Chris W
> KE5GIX
>
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5025. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 22:31:03 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <eiuoq1hn8c3fsc03p0h5nhqct8utgh86rd@4ax.com>
Source record: 66222

ORIGINAL MESSAGE:

On Fri, 23 Dec 2005 12:14:19 -0500, "Tam/WB2TT"
<t-tammaru@c0mca$t.net> wrote:

>A ~200W soldering gun from Radio Shack or Home Depot will also work fine.
>
>Tam/WB2TT

~~~~~~

That's my preference too. Weller makes a 250 watt gun that works great
for PL-259s. Heats up in a few seconds, unlike an iron, and cools down
quickly. Be sure you get the 250 watt version, not the 125 watt.

73, Bill W6WRT
~~~~~~

5026. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 23:16:33 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97359BAF073E9spectrumhogstarbandn@198.186.192.196>
Source record: 66223

>> Crimp connectors work just fine when done properly, but I would not
>> use them on anything above 2M.

> Then why is it that Times Microwave only shows how to put on crimp and
> clamp connectors on their cables on their web site. On their larger
> cables (LMR 900 and up) they only have clamp connectors.

In all honesty, I don't have any real experience on most Times'
Cables..... mostly with Belden and Alpha products, so can't be sure what
connectors Times recommends for their larger RF cables.

>> If you have the money, the best iron for soldering coax connectors
>>would be one such as made by American Beauty..... but very pricey.

> I found an 150 watt one for $115, that doesn't seem too bad to me if
> it is that much better than others.

I think most experienced technicians would agree that the large mass
of the heating element on the American Beauty allows for a better and
quicker solder job, with much less risk of damaging the cable. If you
don't mind spending that money, I'd recommend the one you linked to. I
have one similar to it, and no regrets.

Ed K7AAT

5027. reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-23 23:46:16 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <aMadnf7HDZ_WETHeRVn-qg@comcast.com>
Source record: 66224

The program zl_zin calculates a Zload from a known Zin. It would seem that given a symmetrical feedline that Zin and Zload should be mirrors. Why is that not so?

Is there a program that will calculate Zin from a known Zload?

Thanks - Dan kb0qil

5028. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:01:18 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43AC8FCE.4060806@comcast.net>
Source record: 66225

Roy,

Plot this on a smith chart program. You are correct, your meter reads close to 2:1, however you know nothing about the phase or resonance of the antenna. It does not tell you if you have a tuned antenna and a poor R match or if your antenna is way out of tune. (Of course neither does the telescope)

Dan

Roy Lewallen wrote:
> This is pretty strange.
>
> Suppose Reg has a 50 ohm line of some length connected to an antenna
> whose impedance is 100 + j0 ohms. After putting away his evening's
> bottle of wine, he climbs the tower and inserts a 50 ohm SWR meter at
> the antenna. He climbs back down, gets out his vintage brass telescope
> and keys the transmitter. Then, steadying himself, he peers through the
> telescope and sees that the SWR meter reads 2:1. (Being a clever person,
> he mounted the meter upside down so it would be right side up in the
> telescope, obviating the need for the added challenge of mental inversion.)
>
> I have an identical antenna, feedline, and SWR meter. I sit in my warm
> shack sipping my moonshine, connect the SWR meter to the input end of
> the line, hit the key, and note that the meter reads 2:1. Or perhaps
> slightly less if the line is noticeably lossy.
>
> Reg says:
>
> > Placing the SWR meter at the start of the feed-line terminated by the
> > antenna, will tell you NOTHING about the SWR on that line.
>
> I guess the 2:1 reading from the meter at the input end of the line is
> telling Reg nothing, while the 2:1 reading at the antenna is. Strange.
> The fact is that it's the SWR on the line, and it can be measured at any
> point along the line. I like my method better, but each to his own.
>
> Roy Lewallen, W7EL
>
> Reg Edwards wrote:
>
>> Roy, you surprise me. Try a jug of Moonshine.
>>
>> Placing the SWR meter at the start of the feed-line terminated by the
>> antenna, will tell you NOTHING about the SWR on that line.
>>

>> It is the antenna input impedance which determines the SWR on the
>> line, and the meter doesn't have the foggiest idea what THAT is.
>>
>> The unknown antenna impedance is at the other end of a line of unknown
>> length, unknown impedance and unknown loss. Unknown, that is, to the
>> meter.
>>
>> YOU might have that knowledge. But then you can CALCULATE what the SWR
>> is on the line. Meter readings having been discarded as useless.
>>
>> I repeat - the meter tells you only whether or not the transmitter is
>> loaded with a resistive 50 ohms. No more and no less. If it is not
>> 50 ohms the ambiguous meter will not even tell you the actual value of
>> Z.
>>
>> Intoxicated or not, if you insist on a meter reading, there is no
>> alternative to climbing the antenna mast.
>> ----
>> Reg, G4FGQ.
>>
>> PS. The use of SWR by American plug and socket manufacturers to
>> describe unrelated characteristics of their products is a small
>> indication of the abysmal depths to which engineering has descended.
>> Technical specifications are reduced to Camm's Comics. But they look
>> good to the uninitiated.
>> ----
>> Reg.
>> ==
>>
>>

5029. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:05:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doi3co$9be$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66126

In this day and age, there is only one meter on or associated with a transmitter.

It is the misnamed SWR meter.

Consequently and unavoidably, with nothing else left to talk about, the importance attached to SWR becomes exaggerated.

It is perfectly natural, for CB-ers and professional engineers alike, to imagine the indicated SWR applies to the one and only transmission line in the system. That is along the line from the transmitter/tuner to the antenna.

But the meter does not indicate SWR on any line. It merely indicates whether or not the load on the transmitter is 50 ohms. Which is nice to know. But, nevertheless, you have been fooled!

After half a century of being unwittingly misled, it is admittedly difficult to have to suddenly switch one's ideas about what is thought to be an important subject.

Carry on arguing!

Reg.

5030. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:10:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qp4esifj10vdc@corp.supernews.com>
Source record: 66127

dansawyeror wrote:
> The program zl_zin calculates a Zload from a known Zin. It would seem
> that given a symmetrical feedline that Zin and Zload should be mirrors.
> Why is that not so?

I'm not sure what you mean by "mirrors". But the relationship between Zin and Zload is dictated by the way transmission lines transform impedances. A better question is, why should it be anything else?

A series inductor is symmetrical, is it not? Suppose you have a series inductor with impedance +j10 ohms in a box. Connect it to a load of 50 + j0 ohms. Looking into the input of the series inductor, you see 50 + j10 ohms. Now put a load of 50 + j10 ohms at the output instead of 50 + j0. Are you saying you expect to see 50 + j0 at the input? Why?

> Is there a program that will calculate Zin from a known Zload?

Hopefully someone else will be able to answer that.

Roy Lewallen, W7EL

5031. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:14:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <944pq1piql55o77t7b1gevfb7dn81mpun2@4ax.com>
Source record: 66128

On Fri, 23 Dec 2005 15:46:16 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>The program zl_zin calculates a Zload from a known Zin. It would seem that given
>a symmetrical feedline that Zin and Zload should be mirrors. Why is that not so?

Line loss.

>
>Is there a program that will calculate Zin from a known Zload?

http://www.vk1od.net/tl/tllce.php will work both ways, Zin from Zload,
and Zload from Zin.

Owen
>
>Thanks - Dan kb0qil
--

5032. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:20:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qp52bhjttf12f@corp.supernews.com>
Source record: 66129

dansawyeror wrote:
> Roy,
>
> Plot this on a smith chart program. You are correct, your meter reads
> close to 2:1, however you know nothing about the phase or resonance of
> the antenna. It does not tell you if you have a tuned antenna and a poor
> R match or if your antenna is way out of tune. (Of course neither does
> the telescope)

What you say is true, but I don't understand what it has to do with the discussion at hand. No one has mentioned phase, resonance, tuning, or R match. An SWR meter isn't a suitable tool for measuring any of these, except that it'll usually indicate the resonant frequency fairly closely for most typical antennas.

Roy Lewallen, W7EL

5033. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:28:48 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <6pidnW3uJb7eCzHeRVn-sg@comcast.com>
Source record: 66130

Roy,

Well the intuition was correct, however the problem is one level more complex.
The Smith chart shows the following approximate 'mirror' relationships for j=0:

Load Input Measurement
20 125
25 100
35 71
10 250
50 50

It is a "log" mirror centered on 50 Ohms. The mirror relationship holds for j /=
0, however the calculation is more complex. - Dan

Roy Lewallen wrote:
> dansawyeror wrote:
>
>> The program zl_zin calculates a Zload from a known Zin. It would seem
>> that given a symmetrical feedline that Zin and Zload should be
>> mirrors. Why is that not so?
>
>
> I'm not sure what you mean by "mirrors". But the relationship between
> Zin and Zload is dictated by the way transmission lines transform
> impedances. A better question is, why should it be anything else?
>
> A series inductor is symmetrical, is it not? Suppose you have a series
> inductor with impedance +j10 ohms in a box. Connect it to a load of 50 +
> j0 ohms. Looking into the input of the series inductor, you see 50 + j10
> ohms. Now put a load of 50 + j10 ohms at the output instead of 50 + j0.
> Are you saying you expect to see 50 + j0 at the input? Why?
>
>> Is there a program that will calculate Zin from a known Zload?
>
>
> Hopefully someone else will be able to answer that.
>
> Roy Lewallen, W7EL

5034. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:38:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qp645e3gts080@corp.supernews.com>
Source record: 66131

Reg Edwards wrote:
> . . .
> But the meter does not indicate SWR on any line. It merely indicates
> whether or not the load on the transmitter is 50 ohms. Which is nice
> to know. But, nevertheless, you have been fooled!
> . . .
Let's not be fooled by these contrived misstatements.

An SWR meter tells us the SWR on a transmission line to which it's connected, providing that the line and meter impedances are the same. This can easily be verified with a couple of simple experiments. So it does indeed indicate the SWR on a line. It will, of course, still give a reading under other conditions, such as when the line and meter Z0 are different or when there's no line at all, in which cases it means only what Reg says(*). But I'm afraid that the effort to leave a legacy of a new TLA (three letter acronym) for SWR meters is causing Reg to adopt an increasingly distorted view of what SWR meters can and can't indicate.

(*) Any kind of test equipment can be misused or the results misinterpreted. For example, anyone using a 1000 ohm/volt voltmeter to read voltage in a high-impedance circuit will not see the voltage which is there when the meter is disconnected. Likewise, measuring high frequency waveforms with a 10 pF scope probe, even at moderate impedances. The list is endless. But this doesn't justify renaming each of those pieces of test equipment to accommodate the most naive user.

Roy Lewallen, W7EL

5035. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:40:49 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <s26pq1tod30fasasmo0ambq51l6nu95rb1@4ax.com>
Source record: 66132

On Fri, 23 Dec 2005 15:46:16 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>The program zl_zin calculates a Zload from a known Zin. It would seem that given
>a symmetrical feedline that Zin and Zload should be mirrors. Why is that not so?

Line loss (if I understand your question correctly)

>
>Is there a program that will calculate Zin from a known Zload?

http://www.vk1od.net/tl/tllce.php will work both ways, Zin from Zload,
and Zload from Zin.

Owen
>
>Thanks - Dan kb0qil
--

5036. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 00:47:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doi5qrjmh1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66133

```
> Is there a program that will calculate Zin from a known Zload?
>
=========================================

Yes, from the same place you obtained program ZL_ZIN.

For coax lines use program COAXPAIR.
For balanced twin lines use programs RJELINE3 or 4.

These programs are to professional standards, 1% accuracy or better,
covering the frequency range from audio to UHF.
----
.........................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.........................................................
```

5037. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 01:35:01 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <mu8pq1h1r7locj7oo7euh9qeup2447vu57@4ax.com>
Source record: 66134

On Fri, 23 Dec 2005 16:10:01 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>dansawyeror wrote:
>> The program zl_zin calculates a Zload from a known Zin. It would seem
>> that given a symmetrical feedline that Zin and Zload should be mirrors.
>> Why is that not so?
>
>I'm not sure what you mean by "mirrors". But the relationship between
>Zin and Zload is dictated by the way transmission lines transform
>impedances. A better question is, why should it be anything else?

Roy, I also wasn't quite sure of the concept of *symmetry* and
mirror as used by Dan.

I made the assumption (perhaps incorrectly) that the transformation is
symmetrical for an integral number of half waves of lossless
transmission line. Impedances might be seen to "mirror" (if mirror
means an exact copy) for an integral number of half waves of lossless
line.

Having made that assumption, loss introduces errors to the
"mirroring", and line lengths other than an integral number of quarter
waves aren't symmetrical in that sense.

Having read Dan's further comments, it seems he thought any length of
real line was symmetric as an impedance transformer. It might be that
you can swap A and B ends in a circuit and obtain the same behaviour,
but you can't swap Zload and Zin in the general case.

Dan, the terms you have used don't have common usage in this context,
and confuse the issue.

Owen
--

5038. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 02:24:14 UTC
From: alex <alex@alex.com>
Message-ID: <43ACB14C.338A26D9@alex.com>
Source record: 66135

Crimp is also very common in aerospace
and military.

5039. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 02:26:01 UTC
From: alex <alex@alex.com>
Message-ID: <43ACB1B7.B5CA6B5B@alex.com>
Source record: 66136

You only need low power iron to attach the
center conductor to the pin, the N connectors
are clamp types. No tools needed.

Chris W wrote:

> Luke wrote:
>
> >hi Chris,
> >
> >Welmcome to ham radio, I am sure you will enjoy it
> >as much as the rest of us have !
> >
> >Since you are starting out, to solder you just need
> >the iron, 100-120 watts with chisel tip is just fine,
> >don't attempt with the lower wattage units, you end
> >up damaging the coax dielectric and have more problems.
> >
> >Crimps have their place, but, you will need to buy or
> >borrow the crimp frame tool along with the correct
> >dies for the connectors you want to crimp.
> >This is a lot more expensive then the solder iron.
> >
> >Be sure to buy and use name brand connectors,
> >quality is worth the price, you buy it once.
> >You can get a bag of the cheap ones to practice
> >with and then use the good Amphenol or other brands.
> >
> >http://www.amphenolrf.com/products/assemblyInstructions/274.pdf
> >
> >
> Actually I plan on going out of my way to avoid UHF connectors. I plan
> on doing a fair amount at 400+ mhz and the UHF connectors don't do well
> up there. So about the only place I will be using UHF is at the radio
> if I can't find a radio with N connectors. My watt meter has N
> connectors and so do my antennas. I'm not sure why anyone would want to
> use UHF on anything outside. The only way to protect a UHF from the
> weather is with some coax wrap but the N has a seal built in, of course
> some kind of wrap as additional protection isn't a bad idea either if it
> is done right. In some cases I may even replace the UHF connector in
> the radio with an N but only if it is an old radio no longer under warranty.
>
> --
> Chris W
> KE5GIX

>
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> http://thewishzone.com

5040. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 02:28:46 UTC
From: alex <alex@alex.com>
Message-ID: <43ACB25C.47D8E6DA@alex.com>
Source record: 66137

Yes, the 3/8" chisel tip is great.

100w or higher 700 deg. autotemp weller.
many used on the forsale forums and ebay.

Big difference between a heat sink and heat source !

Chris W wrote:

> I forgot to bring up resistive soldering, does any one use one of
> those? I guess if I get a big iron that will work good. I used a 140
> watt gun for the UHF connector I did first, I hear the big irons work
> better because of the larger thermal mass, I may try the heat gun trick
> too. I have a small heat gun that will get up to 200 and something F or so.
>
> --
> Chris W
> KE5GIX
>
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> http://thewishzone.com

5041. Connect coax shield to pipe when dipole is at top of pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 02:29:01 UTC
From: mcalhoun@ksu.edu
Message-ID: <doibpd$fkt@unix1.cc.ksu.edu>
Source record: 66138

I've long used an end-to-end pair of same-band hamsticks on a metal
bracket at the top of a push-up pole for a quick-and-dirty expedient
dipole. My support pole is usually wood, but when I put the dipole
on top of a metal pipe I realized there are two ways to do it:

The hamstick that is connected to the coax center wire
is always insulated from the pole, and the hamstick
that is connected to the coax shield could EITHER be
INSULATED or "GROUNDED" to the pole.

QUESTIONS: Which should it be? Should/Would it make any difference?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

5042. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 02:57:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qpe89h8o2em3c@corp.supernews.com>
Source record: 66139

dansawyeror wrote:
> Roy,
>
> Well the intuition was correct, however the problem is one level more
> complex. The Smith chart shows the following approximate 'mirror'
> relationships for j=0:
>
> Load Input Measurement
> 20 125
> 25 100
> 35 71
> 10 250
> 50 50
>
> It is a "log" mirror centered on 50 Ohms. The mirror relationship holds
> for j /= 0, however the calculation is more complex. - Dan

Well, yes, you can find specific relationships for various special cases of load impedance and line length, particularly if you assume zero loss. But only the appropriate equations, derived from basic principles, will give you the correct relationship in the general case. Be wary of oversimplification.

Roy Lewallen, W7EL

5043. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 03:31:07 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <65gpq15iaqpqm0k48neuuptn5jmh6b6rl5@4ax.com>
Source record: 66140

On Sat, 24 Dec 2005 01:35:01 GMT, Owen Duffy <owen@no.where> wrote:

>I made the assumption (perhaps incorrectly) that the transformation is
>symmetrical for an integral number of half waves of lossless
>transmission line. Impedances might be seen to "mirror" (if mirror
>means an exact copy) for an integral number of half waves of lossless
>line.
>

That should have read:

I made the assumption (perhaps incorrectly) that the transformation is
symmetrical for an integral number of *quarter* waves of lossless
transmission line. Impedances might be seen to "mirror" (if mirror
means an exact copy) for an integral number of half waves of lossless
line.

Owen
--

5044. Re: Connect coax shield to pipe when dipole is at top of pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 03:34:32 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <v5adne4JNolaXDHeRVn-sA@web-ster.com>
Source record: 66141

mcalhoun@ksu.edu wrote:
> I've long used an end-to-end pair of same-band hamsticks on a metal
> bracket at the top of a push-up pole for a quick-and-dirty expedient
> dipole. My support pole is usually wood, but when I put the dipole
> on top of a metal pipe I realized there are two ways to do it:
>
> The hamstick that is connected to the coax center wire
> is always insulated from the pole, and the hamstick
> that is connected to the coax shield could EITHER be
> INSULATED or "GROUNDED" to the pole.
>
> QUESTIONS: Which should it be? Should/Would it make any difference?

I suspect that connecting the shield would be better. Connecting the
shield and using a 1:1 balun at the top would be best.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

5045. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 03:43:17 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <8lgpq15vmilr6s06v3io3b2sho0u10gac2@4ax.com>
Source record: 66142

On Fri, 23 Dec 2005 14:01:08 -0600, Chris W <1qazse4@cox.net> wrote:

>Bob Miller wrote:
>
>>As Doc said, solder.
>>
>>Get a Weller SP-120 soldering iron. It's 120 watts. About $46. You can
>>typically find it by Googling.
>>
>>
>Thanks for the suggestion on the iron, I found it for $40 which isn't
>too bad.
>
>>You'll need that kind of heat to solder coax connector outer shells to
>>the braid. Get the ARRL Handbook, and look at their pages on soldering
>>coax connectors.
>>
>>
>I guess the book you are talking about isn't the antenna book, I can't
>find much on soldering in there.

If you have the ARRL Antenna Book (I have the 19th edition) page 24-21
talks about PL-259 assembly, and explains how to prepare the coax and
solder it to the connector. This is in the chapter labled
"Transmission Lines" if you have another edition of the book.

bob
k5qwg

5046. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 04:12:04 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <thhpq116r2c0m0rlcnta42r6rsn74gbiud@4ax.com>
Source record: 66143

On Fri, 23 Dec 2005 01:05:36 -0600, Chris W <1qazse4@cox.net> wrote:

>I am new in ham radio and want to get set up to make the coax assemblies
>I will inevitably be needing in the future. I am planing on using only
>LMR style coax 240, 400, 600 and maybe some 900 if I get into the 1.2ghz
>stuff. So is it better to use the crimp, clamp or solder on
>connectors. In the case of the center conductor, there are some where
>that is solder and the outer is crimp or clamp so is crimp and or clamp
>ok for the outer conductor and solder better for the inner? I welcome
>all points of view on this. Thanks for you input.

You should not dismiss crimp connectors as inferior to soldered connections. Crimp connectors, properly executed with correct fitting dies, produce a very good result, they are good electrically, and they often have superior strength compared to "field serviceable" connectors (the solder / braid clamp) type.

For my own use, I:
- avoid PL-259 type connectors (that is not to mean UHF);
- prefer N type for thicker cables and all outdoors (whether or not in the weather);
- on Heliax, prefer the connectors that are sealed by injection of silicone into the backshell, ambivalent about whether the centre pin is soldered or spring contact (which are usually cheaper and quicker);
- prefer BNC on thin patch cables and fly leads;
- prefer crimped connectors to "field serviceable" connectors in indoors applications;
- prefer sealed connectors for all outdoors applications, and question whether most sealed crimp connectors are actually effective through life;
- keep a pair of multigrips handy for times when UHF connectors must be used.

If you are choosing to use LMR cables, you might want to look at LMR195 (I think) which is dimensionally similar to RG58 and can use low cost RG58 crimp connectors.

If you use BNC (or TNC for that matter), look at whether the connectors you buy locate / retain the centre pin independently of the wire connection.

Owen
--

5047. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 04:33:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doij2c$5oi$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66144

The so-called SWR meter is just a resistance (not impedance) bridge.

The bridge is at balance and indicates SWR = 1:1 when a resistance of precisely 50 ohms is connected to its output terminals. It is arranged within the meter that this 50-ohm resistance, or whatever is connected to the output terminals, is the transmitter load.

With the meter in its normal location, the load is the input impedance of the transmission line to the antenna. So when the input impedance of the line, as determined by Zo of the line and the antenna input impedance, is 50 ohms then the meter indicates SWR = 1:1 regardless of Zo, line length and antenna impedance.

As Roy says, in the special case of line Zo being precisely 50 ohms it so happens that the meter will correctly indicate SWR along the line. For any other value of line Zo the meter will indicate varying degrees of nonsense.

At HF, line Zo is frequently anywhere between 50 and 600 ohms and a tuner is used to transform line input impedance, either up or down, to the 50 ohms required by the transmitter. But Zo is not affected and the SWR meter indications remain in error.

Whatever Zo and antenna impedance may be, the meter always indicates whether or not the transmitter is correctly loaded with a resistive 50 ohms.

Note that the circuit operates independently of transmitter internal impedance whatever that may be.

Reg.

5048. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 04:56:04 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43ACD4E4.6080304@comcast.net>
Source record: 66145

Thanks,

Can you explain "transmission performance". Is it as measured and the source, Zin? What is the range of Reflection Coeff? Is it a percentage? Is refl. coeff. angle measured at Input?

Thanks, Dan

Reg Edwards wrote:
>>Is there a program that will calculate Zin from a known Zload?
>>
>
> ==
>
> Yes, from the same place you obtained program ZL_ZIN.
>
> For coax lines use program COAXPAIR.
> For balanced twin lines use programs RJELINE3 or 4.
>
> These programs are to professional standards, 1% accuracy or better,
> covering the frequency range from audio to UHF.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

5049. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 05:11:03 UTC
From: Asimov <Asimov@-removethis-bbs.juxtaposition.dynip.com>
Message-ID: <MSGID_1=3a167=2f133.0_43acbc58@fidonet.org>
Source record: 66146

"'Doc" bravely wrote to "All" (23 Dec 05 11:22:03)
--- on the heady topic of "Re: Crimp, Clamp or Solder?"

'D> From: 'Doc <w5lz@cwis.net>
'D> Xref: core-easynews rec.radio.amateur.antenna:221739

'D> Chris,
'D> Solder.
'D> 'Doc

Spot weld.
Makes great thermocouple joints.

A*s*i*m*o*v

5050. Re: Connect coax shield to pipe when dipole is at top of pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 05:25:52 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <4jmpq15behsrkodtfb3dgpp8smiuplf0b3@4ax.com>
Source record: 66147

ORIGINAL MESSAGE:

On 23 Dec 2005 20:29:01 -0600, mcalhoun@ksu.edu wrote:

> The hamstick that is connected to the coax center wire
> is always insulated from the pole, and the hamstick
> that is connected to the coax shield could EITHER be
> INSULATED or "GROUNDED" to the pole.
>
>QUESTIONS: Which should it be? Should/Would it make any difference?
>--

~~~~~~

What would be the point of "grounding" it to the pole? Do you want
some of your RF to flow into the pole and thereby have the pole
radiate? I wouldn't.

The HamSticks are your antenna. Don't add something else unless you
have a specific reason.

The 1:1 balun mentioned by someone else is a good idea. It will keep
all the RF in the antenna and prevent any from flowing on the outside
of the coax. If you choose to not use it, it's not a major deal but
that would distort the antenna pattern a small amount.

73, Bill W6WRT
~~~~~~

5051. اي جمامعة فى منـح تعليميـة مجانية فى مجال برمجة الكمبيوتر

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 10:32:14 UTC
From: Dr_mohamed_hassan_81@yahoo.com
Message-ID: <1135420333.985987.42350@f14g2000cwb.googlegroups.com>
Source record: 66148

من يرغب فى دراسة برمجة الكمبيوتر فهناك
شركة تدعى مؤسسة النمام العربى تقدم منح
مجانية - للمزيد من المعلومات

Oracle 10G Developer Users - OCP
Oracle application server
Oracle designer
Oracle 10g database administration - OCA

Microsoft Certified Solution Developer - MCSD
Microsoft Certified Systems Engineer - MCSE
International Computer Driving Licence - ICDL

CISCO - CCNA
CISCO - CCNP

Multimedia - 2D
Multimedia - 3D

Linux - power user
Linux - adminstration

PHP

Java programming

System analysis
System design

أتصل بمؤسسة النمام العربى فى 4522041
القاهرة
http://www.egyptwebs.tk

5052. اي جمامعة فى منـح تعليميـة مجانية فى مجال برمجة الكمبيوتر

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 10:32:27 UTC
From: Dr_mohamed_hassan_81@yahoo.com
Message-ID: <1135420347.728943.214970@g43g2000cwa.googlegroups.com>
Source record: 66149

من يرغب فى دراسة برمجة الكمبيوتر فهناك
شركة تدعى مؤسسة النمام العربى تقدم منح
مجانية - للمزيد من المعلومات

Oracle 10G Developer Users - OCP
Oracle application server
Oracle designer
Oracle 10g database administration - OCA

Microsoft Certified Solution Developer - MCSD
Microsoft Certified Systems Engineer - MCSE
International Computer Driving Licence - ICDL

CISCO - CCNA
CISCO - CCNP

Multimedia - 2D
Multimedia - 3D

Linux - power user
Linux - adminstration

PHP

Java programming

System analysis
System design

أتصل بمؤسسة النمام العربى فى 4522041
القاهرة
http://www.egyptwebs.tk

5053. If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 11:15:26 UTC
From: tomerbr <t_bruchiel@nana.co.il>
Message-ID: <1135422926.082522.168780@o13g2000cwo.googlegroups.com>
Source record: 66150

this was a qustion from my instractor in college

5054. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 12:28:27 UTC
From: Dave <noone@nowhere.com>
Message-ID: <B5ednYWc-PBuozDenZ2dnUVZ_sadnZ2d@crocker.com>
Source record: 66151

"tomerbr" <t_bruchiel@nana.co.il> wrote in message
news:1135422926.082522.168780@o13g2000cwo.googlegroups.com...
> this was a qustion from my instractor in college
>

short answer: there is no 'ideal' length.

long answer: an 'ideal length' is a metaphysical concept that has no place in engineering. antennas of different lengths perform in different ways as governed by the laws of physics, obviously the designers of those antennas made some tradeoff in length vs signal strength vs distribution of energy in azimuth and elevation vs installation location and physical limitations including probably visibility, strength, produceability, and mounting method to come up with a cost effective solution to the problem of letting a user make phone calls from car. the concept of 'ideal length' assumes that there is one length that gives the best of all those possible tradeoffs which is highly unlikely to exist.

5055. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 13:03:37 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <JGbrf.9795$nm.1327@newsread2.news.atl.earthlink.net>
Source record: 66152

"tomerbr" <t_bruchiel@nana.co.il> wrote in message
news:1135422926.082522.168780@o13g2000cwo.googlegroups.com...
> this was a qustion from my instractor in college
>

As Dave said, there is no ideal length for an antenna.

The 1/4 wave antenna will have a radiation patern that sends much of the signal at high angles from it. Not usually good for cell phones where they are usually on short towers (if you call a couple of hundred feet short). The longer (in wavelengths) antennas tend to put the signal more to the horizon and not overhead. By modifying the radiation patern to put it more where it is needed instead of where it is not needed you get gain in that direction and hopefully longer range.

5056. PAR EF-SWL Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 14:58:23 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <bq-dnTothZOZ_zDeRVn-vQ@comcast.com>
Source record: 66153

Hello:

Really don't want to bother everyone in the forum with all my beginner type questions as relating
to the PAR EF-SWL antenna.

Anyone who is familiar with it, or has one, care to chat off-line with me, a bit, on it ?

Thanks,
Bob

5057. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 15:06:10 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <Ctdrf.3460$r4.3399@newsfe1-gui.ntli.net>
Source record: 66154

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:JGbrf.9795$nm.1327@newsread2.news.atl.earthlink.net...
>
> "tomerbr" <t_bruchiel@nana.co.il> wrote in message
> news:1135422926.082522.168780@o13g2000cwo.googlegroups.com...
> > this was a qustion from my instractor in college
> >
>
> As Dave said, there is no ideal length for an antenna.
>
> The 1/4 wave antenna will have a radiation patern that sends much of
the
> signal at high angles from it. Not usually good for cell phones
where they
> are usually on short towers (if you call a couple of hundred feet
short).
> The longer (in wavelengths) antennas tend to put the signal more to
the
> horizon and not overhead. By modifying the radiation patern to
put it
> more where it is needed instead of where it is not needed you get
gain in
> that direction and hopefully longer range.
>
>

What an absolute load of blx.

The reason that car cellular antennae are longer than a 1/4 wavelength is that almost all of them are centre loaded dual antennas or are 5/8 or 7/8 co-linears. The very short ones are often a little longer as they are coupled through glass and have to be matched.

The wavelength of a signal and it's aerial have nothing to do with the propagation pattern. A simple VHF or UHF folded dipole for the same mounting and wavelength related structure spacing radiates the same shape of pattern irrespective of frequency - roughly apple-shaped in cross-section.

What you are getting mixed up with is the panel aerials used on most base station sites. These are almost all multiple stacked element arrays which are designed to project the signal more outwards and not down/close in, and they amost always are spaced within the package to make them directional after a fashion. Many of them have 5 deg or 10

deg of electrical downtilt to give the close-in coverage, hence why you sometimes see the 'rabbit ears' tilted backwards where range is important for that particular location.

--
Woody

harrogate2 at ntlworld dot com

5058. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 15:16:54 UTC
From: Kip W6KIP <w6kip@kipwilliams.com>
Message-ID: <1135437414.115827.205830@z14g2000cwz.googlegroups.com>
Source record: 66155

> >
> > Get a Weller SP-120 soldering iron. It's 120 watts. About $46. You can
> > typically find it by Googling.
> A ~200W soldering gun from Radio Shack or Home Depot will also work fine.
>
> Tam/WB2TT

I'm a cheapskate who uses a soldering gun about as often as I make new
coax lines. (It happens, but I don't spend much time at it.) If you
have a Harbor Freight tool store near you, they have a 180 watt gun you
can usually catch on sale for 6.99. Not as good as a Weller, I'm sure
but so far the solder hasn't noticed.

73
Kip W6KIP

5059. Re: reciprocity and program zl_zin ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 15:51:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dojqpf$q54$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66156

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:43ACD4E4.6080304@comcast.net...
> Thanks,
>
> Can you explain "transmission performance". Is it as measured and
the source,
> Zin? What is the range of Reflection Coeff? Is it a percentage? Is
refl. coeff.
> angle measured at Input?
>
==========
"Transmission performance" is just a descriptive term relating to how well a line works compared with what is expected from it. It is not measurable. It is a way of referring to the very many different characteristics / properties / attributes of anything which performs. It can be good, poor, better, worse, etc., etc.

The "reflection coefficient" is a dimension-less ratio, the mathematical relationship between line Zo and the line terminating impedance Zt.

RC = (Zt - Zo) / (Zt + Zo).

In general, both Zt and Zo are complex quantities and therefore RC possesses both magnitude and a phase angle.

The magnitude can be anywhere between 0 and 1+Sqrt(2) although only in very exceptional circumstances will it exceed 1.0 It is never expressed as a percentage.

The phase angle can lie in any of the 4 quadrants of a circle. i.e., it can have an angle anywhere between 0 and 360 degrees. When performing calculations it is more comvenient to refer to the angle as lying between -180 and +180 degrees.

It can be referred to any point along a line. The angle, as in a vector, rotates as the reference point moves away from the termination towards the generator.

As you are probably aware, RC is closely related to SWR. SWR can be calculated from RC. But RC cannot be calculated from SWR. This is because RC conveys twice the amount of information as SWR. When calculating SWR from RC half the information is lost. The angle of SWR disappears.

SWR is the end of the line! Whether SWR is measured or calculated you can't go much further.

But SWR / RC is a fascinating subject.

Reg, G4FGQ.

5060. Re: PAR EF-SWL Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 16:16:13 UTC
From: Reloader <Reloader.20kc6o@news.radiobanter.com>
Message-ID: <Reloader.20kc6o@news.radiobanter.com>
Source record: 66168

I have had one for over 2 years. I really am surprised at the widde coverage for a low mounted antenna.. Due to lack of space, I have mine mountd as a sloper at 24 feet going down to 9feet in a North-south direction. I also have powerline noise from an uncooperative power company. the antenna allows me to receive even with arcing transformers. Power company says it's MY problem. FCC complaint sent. I wish that i would be able to mount it higher. I think you will be pleased with the peformance. Greg

--
Reloader

5061. Effective Height of Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 16:58:53 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43ad7d96_3@newsfeed.slurp.net>
Source record: 66157

Recently I bought a used copy of "Reference Data for Radio Engineers" published by Howard Sams in 1975. On page 27-6 the following applies to this topic:

QUOTE

The effective height of a grounded vertical antenna is equivalent to the height of a vertical wire producing the same field along the horizontal as the actual antenna, provided the vertical wire carries a current that is constant along its entire length and of the same value as at the base of the actual antenna. Effective height depends upon the geometry of the antenna and varies slowly with wavelength. For types of antennas normally used at low and medium frequencies, it is roughly 1/2 to 2/3 the actual height of the antenna.

For certain antenna configurations, effective height can be calculated by the following equations.

Straight Vertical Antenna: h =< 1/4 lambda

Effective Height = [lambda/pi*sin(2*pi*h/lambda)]*sin^2(pi*h/lambda)
where h = actual height

<clip>

END QUOTE

This may be useful toward the earlier thread started here by Reg ("Back to fundamentals"), that went off in several directions.

RF

5062. Ant. Considerations for the FT-857D

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 17:08:18 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <6gfrf.57587$6e.57437@tornado.tampabay.rr.com>
Source record: 66160

If you live on a typical suburban lot and were contemplating purchasing a Yaesu FT-857D or perhaps the new Icom R-7000, what would you buy for an antenna(s)? Is the QRN bad enough that you would stay way from a vertically polarized antenna for HF? Should I take an interest in 160 meters or is it a relatively specialized band that is not worth the antenna considerations initially? Been away from Ham radio for over 20 years but know enough to think out my antenna strategy before buying the rig. Thanks for any comments.

Cordially,
west
AF4GC

5063. EZNECv4 Loop Modeling

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 17:15:57 UTC
From: Jim Miller <jim@jtmiller.com>
Message-ID: <1135444557.417573.286740@z14g2000cwz.googlegroups.com>
Source record: 66158

I finally took the time to do some modeling using EZNEC v4 of a loop I'm going to build. I used the loop facility in EZNECv4 to construct a circular loop approximated by 32 linear pieces each of a single segment. I placed a lossless 23.2pf capacitor (series RLC with R,L as shorts) in the center of the topmost segment. The "wire size" for this portion was 0.875" corresponding to the 3/4" soft copper I'm using. The loop size was 5.25ft in diameter just short of a 1/4 wave at 20M.

I then constructed a 1/5 diameter loop of #12 copper and placed it within 0.1ft of the outer loop at the bottom.

The base of the whole assembly was placed 10ft above a medium ground.

The results were consistent with most of the calculators found on the web. The loop resonated at 14.02Mhz with a SWR around 1.1. The size of the coupling loop needed to be reduced a bit from the 1/5 diameter. EZNEC has a nice facility for changing the loop sizes to make this easy.

The far field pattern was better than I had expected. The gain at around 25° was just short of 4dBi and the side lobe was down 12dB. Written descriptions I have read led me to believe that a 1/4wave loop would have poorer sidelobes than that. I had not expected to see 4dBi either which compares favorably to a dipole.

Much more puzzling however was the performance at 40M. I changed the tuning capacitor to 110pf and swept the SWR around 7Mhz. Min SWR was in the right frequency range but around 3, too high but fixable with the coupling loop. More disappointing however was the farfield pattern. Probably due to the fact that it is now half the height above ground in fractional wavelengths the antenna is much more of a cloud warmer. This increased upward radiation comes at the expense of directional gain and the sidelobes minima while still present are nearly at ground level providing little suppression to incoming waves at "normal heights. The pattern is basically that of a dome.

The reason that this bothers me is that descriptions of small loops suggest that as the loop size approaches <0.1wavelength the pattern directional performance improves rather than degrades. At 7Mhz this loop is an 1/8 wave and I would think would show improvement.

Any ideas?

jim

5064. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 17:37:37 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <BHfrf.37873$7h7.18199@newssvr21.news.prodigy.com>
Source record: 66159

If a crimp is done properly, its consistently superior to solder, unless youï¿½re a NASA certified solder person. When I say properly, I mean well designed connectors with the correct crimp tool and tension. Much of the cheap, off shore cable assys with crimp connectors are sub standard and that can give crimp an unwarranted bad name. If you give the same crimp connectors, tools and instructions to a bunch of hams, you will get consistent results. Give the same group solder connectors and various heat implements and the results will vary from excellent to disastrous. Do you really know whatï¿½s inside that PL-259 that you just soldered to a piece of foam dielectric LMR cable? Did the solder gun turn the foam into a solid blob of some new kind of plastic inside the connector? Are you positive the heat didnï¿½t make the center conductor migrate in the dielectric? Did the solder flow up the braid and make a future failure point beyond the connector? I participated in assembling an aircraft wiring harness once (will never do that again) and solder was completely off limits, only crimp connectors could be used. The reasons for crimp were consistency in performance, the ability to audit the crimp tools and peopleï¿½s lives were at stake if something failed.
Mike

Chris W wrote:
> I am new in ham radio and want to get set up to make the coax assemblies
> I will inevitably be needing in the future. I am planing on using only
> LMR style coax 240, 400, 600 and maybe some 900 if I get into the 1.2ghz
> stuff. So is it better to use the crimp, clamp or solder on
> connectors. In the case of the center conductor, there are some where
> that is solder and the outer is crimp or clamp so is crimp and or clamp
> ok for the outer conductor and solder better for the inner? I welcome
> all points of view on this. Thanks for you input.
>
>

5065. Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 17:58:50 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <sa2rq1550aj5jqvnvvupco7jm1dt9ok1q4@4ax.com>
Source record: 66162

I recall a story from many years ago - possibly an urban myth - where some guy stuck a pin through a ham's coax feeder and thereby took him off air/blew up his rig etc. Given that RF shorts are a totally different kettle of fish from DC shorts, I'm just wondering how feasible from a technical perspective this reported act of sabotage is.
I'm no expert on transmission lines, but it strikes me that the efficacy of such a stunt depends to a great extent on the point in the line where the pin is inserted as related to the wavelength of the transmitted signal. We all know short and open stubs are used as matching elements at the higher frequencies, so it's implicit that just sticking a pin in anywhere isn't necessarily going to adversely affect the efficiency of an antenna system, unless one hits a node at the frequency of operation. What I mean is, IOW, you won't successfully short out coax at RF unless you stick the pin in at an appropriate point. Of course, I might be full of crap on this one as antennas have never been my strong point. Can anyone enlighten me?

btw: this is for academic discussion only! I've no beef against any amateur and have been one myself for over 20 years.
--

"What is now proved was once only imagin'd" - William Blake

5066. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 18:21:41 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <rc4rq1t4ih7vloujmneacd3ekqj8k1m4sa@4ax.com>
Source record: 66163

On Sat, 24 Dec 2005 15:06:10 GMT, "harrogate2"
<harrogate2@ntlworld.com> wrote:

>The wavelength of a signal and it's aerial have nothing to do with the
>propagation pattern.

Nonsense!
--

"What is now proved was once only imagin'd" - William Blake

5067. Re: Gap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 18:30:53 UTC
From: rckchp <rckchp@comcast.net>
Message-ID: <1135449053.013669.215990@z14g2000cwz.googlegroups.com>
Source record: 66161

west wrote:
> Anyone have experience with GAP Antennas?

Here is a link to comments on Gap antennas, found on New Jersey QRP Club's web site :

http://www.njqrp.org/data/gap.html

I personally have no experience with gap antennas.....Your milage may vary.

Rich k2cpe

5068. Re: EZNECv4 Loop Modeling

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 19:36:55 UTC
From: Jim Miller <jim@jtmiller.com>
Message-ID: <1135453015.301583.302610@g14g2000cwa.googlegroups.com>
Source record: 66164

Talking to myself...

Did a bit more modeling to get rid of the segmentation check warning about the coupling loop having segments too small on 40M. I had to change down to an octal loop for the coupling loop to give me wiggle room on the loop size.

I found that playing with coupling loop diameter and placement distance from the bottom loop interacted and changed the coupling loop impedence presented to the source. In general lowering the loop will make it more capacitive and lower the resistive portion. Making the loop smaller raises the resistive portion and raises the capacitance as well. So I moved it up until the reactance got pretty small then fiddled with the size until the resistance approached 50ohms then moved it up or down to again reduce the reactance. Lots of fiddling. I suspect that indicates a similar level of sensitivity to size and placement in the real world as well.

After playing a bit I got the SWR down to 1.3 or so.

Retuning the capacitor back to the 23pf and retesting at 20M shows a reasonable match (<1.2) there as well.

So it seems that a likely approach for tuning the match loop would be to do it on 40M then test at 20M where it appears to be a bit less critical.

5069. Re: Effective Height of Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 20:32:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dokb82$89l$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66165

"Richard Fry" <rfry@adams.net> wrote in message
news:43ad7d96_3@newsfeed.slurp.net...
> Recently I bought a used copy of "Reference Data for Radio
Engineers"
> published by Howard Sams in 1975. On page 27-6 the following
applies to
> this topic:
>
> QUOTE
>
> The effective height of a grounded vertical antenna is equivalent to
the
> height of a vertical wire producing the same field along the
horizontal as
> the actual antenna, provided the vertical wire carries a current
that is
> constant along its entire length and of the same value as at the
base of the
> actual antenna. Effective height depends upon the geometry of the
antenna
> and varies slowly with wavelength. For types of antennas normally
used at
> low and medium frequencies, it is roughly 1/2 to 2/3 the actual
height of
> the antenna.
>
> For certain antenna configurations, effective height can be
calculated by
> the following equations.
>
> Straight Vertical Antenna: h =< 1/4 lambda
>
> Effective Height =
[lambda/pi*sin(2*pi*h/lambda)]*sin^2(pi*h/lambda)
> where h = actual height
>
> <clip>
>
> END QUOTE
>
> This may be useful toward the earlier thread started here by Reg
("Back to
> fundamentals"), that went off in several directions.
>

> RF
==========

Thanks Richard for digging up an ancient copy of RDFRE.

I do not have ready access to the 'bibles' these days.

I recall the RDFRE as being not altogether a reliable publication. It was useful as a general purpose look-up paper which needed checking particularly when using formula. Approximations were used without saying so as I have found to my cost.

Your quote refers to "Types of antennas normally used" and "for certain configurations". This indicates to me an uncertain range of dimensions. Perhaps some antennas in the range considered were top-capacitance loaded, others were not, some thick and fat, some very slender, some guyed, some not, some with tall base insulators, some not. Even Terman lumps together a range of dimensions and draws conclusions common to the collection.

I recall seeing reference to "Effective Height" in the ancient tomes from 1900 to 1940.

The theoretical effective height of a short receiving vertical above a very good gound was stated to be EXACTLY HALF of actual height. As the actual height approaches 1/4-wavelength the effective height increases (I think) to about 0.64 of actual height which, reassuringly, equals 2/Pi. (I am always reassured when a number like 2/Pi appears in guesswork.)

So the voltage measured between the bottom end of a 1-metre vertical antenna and ground is exactly half of the field strength in volts per metre. And my program has been corrected accordingly to give the correct value for receiver power input.

The 'bibles' refer to "Induced voltage" but the learned authors forgot to state beween which points on the antenna the voltage is referred. This is an open invitation for readers to jump to the wrong conclusions.

Incidentally, the field strength at a distance of 1 Km from a 1000 watt transmitter was always correctly calculated by my program to be 300 millivolts per metre. The calculation does not use the concept of "Effective Height". It uses the concept of power gain relative to isotropic.

Nowhere in the program is the concept of images in the ground, reflections from the ground and half-hemispheres invoked. I was pleased it didn't arise in the discussions. It would have been yet another direction to get bogged down in.

Nice to have your interest.

Reg, G4FGQ.

5070. Re: Ant. Considerations for the FT-857D

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 20:33:48 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Mgirf.9375$3Z.5255@newsread1.news.atl.earthlink.net>
Source record: 66166

"west" <westley@tampabay.rr.com> wrote in message
news:6gfrf.57587$6e.57437@tornado.tampabay.rr.com...
> If you live on a typical suburban lot and were contemplating purchasing a
> Yaesu FT-857D or perhaps the new Icom R-7000, what would you buy for an
> antenna(s)? Is the QRN bad enough that you would stay way from a
vertically
> polarized antenna for HF? Should I take an interest in 160 meters or is it
a
> relatively specialized band that is not worth the antenna considerations
> initially? Been away from Ham radio for over 20 years but know enough to
> think out my antenna strategy before buying the rig. Thanks for any
> comments.
>

Could you give a price range and how much real estate you have ? I would
like a 180 ft tower with seperate beams on it for each band but it is much
out of my price range. Also hard to put up a 160 meter dipole on a 1/2 acre
lot. Tell us what kind of antennas you are thinking of .

5071. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 20:45:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qrcqkkm3vn5fe@corp.supernews.com>
Source record: 66167

Inside the coax cable are two conductors carrying current, the inside of the shield and the outside of the center conductor. The current on one of those conductors travels to the antenna, and an equal current returns on the other conductor.

At the point where you insert the pin, the current has two possible paths: it can continue down the cable as it normally does, or it can return to the other conductor via the pin. The fraction which goes each way is determined by the impedance of each path. A pin is electrically very short at frequencies at which the coax can be effectively used, so it has negligible reactance. Assuming that it's making good contact with both the shield and center conductor -- which it might not be -- the resistance will also be small. So it makes a good RF short circuit. Therefore a large fraction of the current will return via the pin rather than going on down the cable. So the first effect will be that it will greatly reduce the amount of power which reaches the antenna to be radiated.

What will happen to the transmitter? That depends on the transmitter and where the pin is inserted. If the cable didn't have any loss and the pin had zero resistance, the transmitter would see a pure reactance. That is, what it would see would look like a pure L or C, with the value and sign depending on the pin's position relative to the transmitter. In practice, the pin will have some resistance and the cable will have some loss, so the transmitter will also see some amount of resistance, the amount again depending on the pin position, as well as the cable loss and pin resistance. I suspect that most modern 100 watt-class solid state transceivers would probably just shut down their output stage and not be permanently damaged, but I'd rather not experiment with my own rig. The result might be more spectacular with a tube type linear with pi network output. But again, it would depend on the design of the transmitter and the particular impedance it sees.

Roy Lewallen, W7EL

Paul Burridge wrote:
> I recall a story from many years ago - possibly an urban myth -
> where some guy stuck a pin through a ham's coax feeder and thereby
> took him off air/blew up his rig etc. Given that RF shorts are a
> totally different kettle of fish from DC shorts, I'm just wondering
> how feasible from a technical perspective this reported act of
> sabotage is.
> I'm no expert on transmission lines, but it strikes me that the
> efficacy of such a stunt depends to a great extent on the point in the
> line where the pin is inserted as related to the wavelength of the
> transmitted signal. We all know short and open stubs are used as

> matching elements at the higher frequencies, so it's implicit that
> just sticking a pin in anywhere isn't necessarily going to adversely
> affect the efficiency of an antenna system, unless one hits a node at
> the frequency of operation. What I mean is, IOW, you won't
> successfully short out coax at RF unless you stick the pin in at an
> appropriate point. Of course, I might be full of crap on this one as
> antennas have never been my strong point. Can anyone enlighten me?
>
> btw: this is for academic discussion only! I've no beef against any
> amateur and have been one myself for over 20 years.

5072. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 21:25:57 UTC
From: dplatt@radagast.org
Message-ID: <11qrf75t4pkcdd2@corp.supernews.com>
Source record: 66169

In article <sa2rq1550aj5jqvnvvupco7jm1dt9ok1q4@4ax.com>,
Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:

> I recall a story from many years ago - possibly an urban myth -
>where some guy stuck a pin through a ham's coax feeder and thereby
>took him off air/blew up his rig etc. Given that RF shorts are a
>totally different kettle of fish from DC shorts, I'm just wondering
>how feasible from a technical perspective this reported act of
>sabotage is.

"Pinning" a coax has a long history in the mythos of RF... I've heard stories about it for years, usually involving somebody pinning the coax of an obnoxious CB operator.

>I'm no expert on transmission lines, but it strikes me that the
>efficacy of such a stunt depends to a great extent on the point in the
>line where the pin is inserted as related to the wavelength of the
>transmitted signal.

Well, an effective short at point along the coax is going to cause a complete reflection at that point, and a very high SWR on the line. This may appear to the transmitter as a short, as an open, or as an intermediate resistance with a boatload of reactance, depending on the distance from the transmitter to the short.

A well-designed modern transmitter/amplifier may survive this sort of nasty load well enough, through e.g. voltage and current sensing circuitry which feed back to the bias or ALC circuit, and reduce the power to avoid overcurrent or overvoltage damage, and/or through the use of internally-ballasted RF finals transistors with a big safety margin.

A cheap amplifer (such as many of the "multiple pill" not-so-"linear" amplifiers I see being sold to the CB-cowboy market) could very easily leak out all of its Magic Blue Smoke quite quickly, working into this sort of load.

> We all know short and open stubs are used as
>matching elements at the higher frequencies, so it's implicit that
>just sticking a pin in anywhere isn't necessarily going to adversely
>affect the efficiency of an antenna system, unless one hits a node at
>the frequency of operation.

Not so, I believe. Remember, what you're doing is creating a trivially-short, shorted "stub" across the line. The pin itself will present a low-R, low-Z impedance - most of the power flowing up the line from the transmitter will go into this impedance, and very little

will flow up the remainder of the line to the antenna.

Radiated power will drop very sharply, and the transmitter/amp is
likely to indicate its distress in one way or another.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

5073. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 22:09:32 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <8jhrq1pjn7tanflcq4br47bnnq057ha8bi@4ax.com>
Source record: 66170

I leave only this.

At VHF and up it's common to use a shorted 1/4 wave section for
second harmonic suppression at the output. Very effective and dirt
cheap. The finals are not the least bit bothered.

If a short appeared near a 1/4 wave node at operating frequency
it might go unnoticed.

Allison
KB!GMX

5074. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-24 23:40:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qrn3cn52vsd65@corp.supernews.com>
Source record: 66171

Allison-nospam@nouce.bellatlantic.net wrote:
> I leave only this.
>
> At VHF and up it's common to use a shorted 1/4 wave section for
> second harmonic suppression at the output. Very effective and dirt
> cheap. The finals are not the least bit bothered.
>
> If a short appeared near a 1/4 wave node at operating frequency
> it might go unnoticed.

I'm afraid it wouldn't go unnoticed. The transmitter would see an open circuit, instead of the proper load of typically 50 ohms. The effect on the transmitter would be the same as disconnecting the feedline at the transmitter.

Roy Lewallen, W7EL

5075. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 00:35:08 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <bsprq19brlsk7jslml3t5k2sjl3lbpeklj@4ax.com>
Source record: 66172

On Sat, 24 Dec 2005 15:40:25 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Allison-nospam@nouce.bellatlantic.net wrote:
>> I leave only this.
>>
>> At VHF and up it's common to use a shorted 1/4 wave section for
>> second harmonic suppression at the output. Very effective and dirt
>> cheap. The finals are not the least bit bothered.
>>
>> If a short appeared near a 1/4 wave node at operating frequency
>> it might go unnoticed.
>
>I'm afraid it wouldn't go unnoticed. The transmitter would see an open
>circuit, instead of the proper load of typically 50 ohms. The effect on
>the transmitter would be the same as disconnecting the feedline at the
>transmitter.
>
>Roy Lewallen, W7EL

I did use the word "might" rather than will.

Actually it depends on the real life characteristics of the short. If
it were a perfect short (in theory) yes. But if there is any varience
from that it's going to be harder to predict. Likely it world look
more like a higher impedence, but not completely. In all likelyhood
the parameter that needs to be know more than any one
its frequency. At 432 it's impact would be very different than say
7.2mhz.

Allison

5076. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 01:42:20 UTC
From: Paul Johnson <baloo@ursine.ca>
Message-ID: <s0a183-dbi.ln1@ursine.ca>
Source record: 66175

Ralph Mowery wrote:

>
> "tomerbr" <t_bruchiel@nana.co.il> wrote in message
> news:1135422926.082522.168780@o13g2000cwo.googlegroups.com...
>> this was a qustion from my instractor in college
>>
>
> As Dave said, there is no ideal length for an antenna.
>
> The 1/4 wave antenna will have a radiation patern that sends much of the
> signal at high angles from it. Not usually good for cell phones where
> they are usually on short towers (if you call a couple of hundred feet
> short).

A couple hundred feet is taller than most (all?) cell towers. Nextel used to boast about having the tallest towers, around 110 feet max. Sprint's towers were the shortest before Nextel bought them at around 60 feet. This is why Sprint's signal really sucked balls before Nextel bought them out.

--
Paul Johnson
Email and Instant Messenger (Jabber): baloo@ursine.ca
Got jabber? http://ursine.ca/Ursine:Jabber

5077. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 01:44:34 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <m6urq1dcoii4s72kig2hohti4m4ekicpfm@4ax.com>
Source record: 66173

On Sun, 25 Dec 2005 00:35:08 GMT,
Allison-nospam@nouce.bellatlantic.net wrote:

>On Sat, 24 Dec 2005 15:40:25 -0800, Roy Lewallen <w7el@eznec.com>
>wrote:
>
>>Allison-nospam@nouce.bellatlantic.net wrote:
>>> I leave only this.
>>>
>>> At VHF and up it's common to use a shorted 1/4 wave section for
>>> second harmonic suppression at the output. Very effective and dirt
>>> cheap. The finals are not the least bit bothered.
>>>
>>> If a short appeared near a 1/4 wave node at operating frequency
>>> it might go unnoticed.
>>
>>I'm afraid it wouldn't go unnoticed. The transmitter would see an open
>>circuit, instead of the proper load of typically 50 ohms. The effect on
>>the transmitter would be the same as disconnecting the feedline at the
>>transmitter.
>>
>>Roy Lewallen, W7EL
>
>I did use the word "might" rather than will.
>
>Actually it depends on the real life characteristics of the short. If
>it were a perfect short (in theory) yes. But if there is any varience
>from that it's going to be harder to predict. Likely it world look
>more like a higher impedence, but not completely. In all likelyhood
>the parameter that needs to be know more than any one
>its frequency. At 432 it's impact would be very different than say
>7.2mhz.
>
>
>
>Allison

A short across the transmission line will have much the same effect at
432 as it will at 7 mhz.
What you are thinking about is a shorted stub attached to the
transmission line or output of the transmitter. A shorted 1/4 wave
length stub at the operating frequency placed across the transmitter
output will present a high impedance at the operating frequency and
will not be noticed by the transmitter. But at the second harmonic of
the stub it will be a 1/2 wave shorted stub which will present a short

at the output of the transmitter at the 2nd harmonic frequency.

The shorted stub would still allow energy to flow to the antenna normally. But shorting the transmission line would not no matter where it was.

73
Gary K4FMX

5078. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 01:51:01 UTC
From: dplatt@radagast.org
Message-ID: <11qruo5smfh7eea@corp.supernews.com>
Source record: 66174

>I leave only this.
>
>At VHF and up it's common to use a shorted 1/4 wave section for
>second harmonic suppression at the output. Very effective and dirt
>cheap. The finals are not the least bit bothered.

True, but that's not the situation we're dealing with here.

If you place a shorted quarter-wave section directly at the transmitter's terminals, in parallel with the antenna feedline, then the transmitter "sees" the impedance of the feedline (its usual load) in parallel with the impedance of the shorted stub (very high). The net impedance is that of the load (the admittance of the shorted stub is nearly zero) and the transmitter does not "notice" the presence of the shorted stub.

That's not the situation which occurs if the feedline itself is shorted 1/4 waveline towards the load.

In that situation, the *only* thing that the transmitter will see is the shorted quarter-wavelength "stub" between itself and the short. The impedance at the point of the short is nearly zero - it's the impedance of the short itself, in parallel with the impedance of the antenna as seen when looking up the remainder of the feedline. No matter what the antenna's impedance is, the very low impedance of the short itself is going to dominate the parallel combination. The resulting near-zero-ohm combination will be transformed, by the quarter-wavelength distance back to the transmitter, so that it appears as an open circuit to the transmitter.

The transmitter cannot, in effect, "see past the short circuit" to the antenna itself.

The same is true no matter how far up the feedline from the transmitter the short/pin happens to be. At the point of the short, the impedance is going to be nearly zero, and this near-zero impedance will be transformed to some other value on the same very-high-SWR circle (neglecting consideration of feedline loss, of course).

No matter where you pin the coax, the transmitter is going to be unhappy.

>If a short appeared near a 1/4 wave node at operating frequency
>it might go unnoticed.

Different situation, I'm afraid.

If you have an antenna analyzer, try it out for yourself. Take an arbitrary-length section of RG58 with a 50-ohm load at one end and a BNC at the other. Run it into a BNC "T". Out the other leg of the T, run an adjustable length of RG-58 to the antenna analyzer. You ought to measure 50 ohms in this situation.

Now, stick a short directly across the third branch of the T connector ("pinning" the coax, so to speak), and see what your analyzer tells you. It may read high-Z, or low-Z, or intermediate-Z with a lot of reactance... but it'll be a high indicated SWR, and it won't be anywhere near 50+j0.

Then, disconnect the antenna from the "T". The impedance and indicated SWR won't change significantly.

Try changing the length of the RG58 between the "T" and the analyzer. You'll get a different Z value with the short in place (whether the antenna is or is not attached) but it'll still have a really high SWR, no matter what coax length you choose.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
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5079. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 02:18:02 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <Q8-dnX4E3obKnDPenZ2dnUVZ_tadnZ2d@adelphia.com>
Source record: 66026

harrogate2 wrote:
> "Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
> news:JGbrf.9795$nm.1327@newsread2.news.atl.earthlink.net...
>
>>"tomerbr" <t_bruchiel@nana.co.il> wrote in message
>>news:1135422926.082522.168780@o13g2000cwo.googlegroups.com...
>>
>>>this was a qustion from my instractor in college
>>>
>>
>>As Dave said, there is no ideal length for an antenna.
>>
>>The 1/4 wave antenna will have a radiation patern that sends much of
>
> the
>
>>signal at high angles from it. Not usually good for cell phones
>
> where they
>
>>are usually on short towers (if you call a couple of hundred feet
>
> short).
>
>>The longer (in wavelengths) antennas tend to put the signal more to
>
> the
>
>>horizon and not overhead. By modifying the radiation patern to
>
> put it
>
>>more where it is needed instead of where it is not needed you get
>
> gain in
>
>>that direction and hopefully longer range.
>>
>>
>
>
> What an absolute load of blx.
>

> The reason that car cellular antennae are longer than a 1/4 wavelength
> is that almost all of them are centre loaded dual antennas or are 5/8
> or 7/8 co-linears. The very short ones are often a little longer as
> they are coupled through glass and have to be matched.
>
> The wavelength of a signal and it's aerial have nothing to do with the
> propagation pattern.

Wha? surely you jest!

73 de Mike KB3EIA -

5080. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 02:59:49 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <vWnrf.42522$ih5.41150@dukeread11>
Source record: 66027

Paul Johnson wrote:

>A couple hundred feet is taller than most (all?) cell towers. Nextel used
>to boast about having the tallest towers, around 110 feet max. Sprint's
>towers were the shortest before Nextel bought them at around 60 feet. This
>is why Sprint's signal really sucked balls before Nextel bought them out.
>
>
>

One of the reason they don't make them much higher is because, if they
are over a certain height they have to get special permits and have to
notify the FAA.

--
Chris W
KE5GIX

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from anywhere, for any occasion!
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5081. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 03:19:23 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <Rcorf.42524$ih5.6039@dukeread11>
Source record: 66028

tomerbr wrote:

>this was a qustion from my instractor in college
>
>

Ignore the arguing going on here and suffice it to say that you could get a PhD in antenna theory and spend a lifetime experimenting and just begin to have a clear understanding of antennas. That may be exaggerated, but only slightly.

A few general things to keep in mind. Many cell phones work on two different bands, the antenna needs to work on both. When you are interested in signals in a certain direction, in this case out and not up, the longer the antenna the more gain and the more directional it will be. Don't mistake that as an indication that you just want as long as a wire as you can get, it is much more complex than that. For an omni directional antenna where you want to limit the signal to out and not up, stacking several antennas and hooking them all together in some fashion, is one way to do that, but I doubt that any of the little cell phone antennas do that. About the only time you would want an antenna that also send the signal up is if you are communicating with low earth orbit satellites that could be anywhere form the horizon to straight above you. In that case, the antennas start looking more interesting, that a vertical element.

--
Chris W
KE5GIX

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5082. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 03:47:13 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <o45sq15etsot5kck4vtjec3m030slcnbv6@4ax.com>
Source record: 66029

On Sat, 24 Dec 2005 20:44:34 -0500, Gary Schafer
<gaschafer@comcast.net> wrote:

>>
>>I did use the word "might" rather than will.
>>
>>Actually it depends on the real life characteristics of the short. If
>>it were a perfect short (in theory) yes. But if there is any varience
>>from that it's going to be harder to predict. Likely it world look
>>more like a higher impedence, but not completely. In all likelyhood
>>the parameter that needs to be know more than any one
>>its frequency. At 432 it's impact would be very different than say
>>7.2mhz.
>>
>>
>>
>>Allison
>
>A short across the transmission line will have much the same effect at
>432 as it will at 7 mhz.
>What you are thinking about is a shorted stub attached to the
>transmission line or output of the transmitter. A shorted 1/4 wave
>length stub at the operating frequency placed across the transmitter
>output will present a high impedance at the operating frequency and
>will not be noticed by the transmitter. But at the second harmonic of
>the stub it will be a 1/2 wave shorted stub which will present a short
>at the output of the transmitter at the 2nd harmonic frequency.

If it were a "perfect" short yes.

For real life the short have real impedence between center conductor
and shield. As frequency goes up a .2" peice of wire accumulates
enough real resistance and reactance to be a factor at high VHF and
uhf.

My favorite filter for 2m is found on the ARRL.com TIS site. it's
made with series and parallel shorted sections operating as tapped
resonant circuits. The stubs are only something like 2" and for 2m
thats about 13" short of 1/4 wave. Just shows what happens when
a transmission line stops being simply that.

>The shorted stub would still allow energy to flow to the antenna
>normally. But shorting the transmission line would not no matter where
>it was.

Yes and No. See above.

Allison
Kb!gmx

5083. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 04:03:41 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <4k5sq1h0ro6vsd2ca9an4dvnaaqvt4g0cr@4ax.com>
Source record: 66030

On 24 Dec 2005 03:15:26 -0800, "tomerbr" <t_bruchiel@nana.co.il>
wrote:

If the ideal lenght of an antenna is 1/4 Wave lenght then way are the
Car Cellular antennas are longer then this ?

>this was a qustion from my instractor in college

You have been sidetracked into answering the question, when the
premise that "the ideal length of an antenna 1/4 wavelength" is
unsupported and questionable?

On what basis does your instructor make this general assertion?

You could equally be trying to answer the question "If the ideal
length of an antenna is 1/4 Wave length then why Medium Wave broadcast
antennas commonly longer then this?"

What you learn in answering the question will be useful, but you will
also learn that, subject to the meaning of the term "ideal", the
assertion is unfounded, it does not apply in general.

It is equally valid to turn it around and ask that given so many
antennas are not quarter wavelength, is quarter wavelength really
ideal?

Owen

PS: several reasons come to mind why car cellular antennas are not
quarter wave ground plane antenns, they are (over here) multi-band,
they are often so-called ground independent designs (on-glass, gutter
mounts etc) with elevated feed points, they seek higher gain, some are
a metre long for rural coverage, they appeal to buyers who think
bigger is better.

--

5084. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 04:05:07 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <mi5sq19ufoue9td7pknlbve9j0m1rqgj3a@4ax.com>
Source record: 66031

On Sun, 25 Dec 2005 01:51:01 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>>I leave only this.
>>
>>At VHF and up it's common to use a shorted 1/4 wave section for
>>second harmonic suppression at the output. Very effective and dirt
>>cheap. The finals are not the least bit bothered.
>
>True, but that's not the situation we're dealing with here.
>
>If you place a shorted quarter-wave section directly at the
>transmitter's terminals, in parallel with the antenna feedline, then
>the transmitter "sees" the impedance of the feedline (its usual load)
>in parallel with the impedance of the shorted stub (very high). The
>net impedance is that of the load (the admittance of the shorted stub
>is nearly zero) and the transmitter does not "notice" the presence of
>the shorted stub.
>
>That's not the situation which occurs if the feedline itself is
>shorted 1/4 waveline towards the load

Only if the short is perfect or the frequency is low enough.
Even for shorted stubs doing it right requires a bit of effort
as even a loop at the end causes interesting effects.

>In that situation, the *only* thing that the transmitter will see is
>the shorted quarter-wavelength "stub" between itself and the short.
>The impedance at the point of the short is nearly zero - it's the

Nearly zero is not zero and it's not a constant with frequency.
At 3.5mhz I will agree with you. At 350mhz it's going to show
something different. At 3500mhz, who knows?

>impedance of the short itself, in parallel with the impedance of the
>antenna as seen when looking up the remainder of the feedline. No

However is it parallel or is it some complex reflection of the length
to the antenna.

>matter what the antenna's impedance is, the very low impedance of the
>short itself is going to dominate the parallel combination. The
>resulting near-zero-ohm combination will be transformed, by the
>quarter-wavelength distance back to the transmitter, so that it
>appears as an open circuit to the transmitter.
>

>The transmitter cannot, in effect, "see past the short circuit" to the
>antenna itself.
>
>The same is true no matter how far up the feedline from the
>transmitter the short/pin happens to be. At the point of the short,
>the impedance is going to be nearly zero, and this near-zero impedance
>will be transformed to some other value on the same very-high-SWR
>circle (neglecting consideration of feedline loss, of course).
>
>No matter where you pin the coax, the transmitter is going to be
>unhappy.
>
>>If a short appeared near a 1/4 wave node at operating frequency
>>it might go unnoticed.
>
>Different situation, I'm afraid.
>
>If you have an antenna analyzer, try it out for yourself. Take an
>arbitrary-length section of RG58 with a 50-ohm load at one end and a
>BNC at the other. Run it into a BNC "T". Out the other leg of the T,
>run an adjustable length of RG-58 to the antenna analyzer. You ought
>to measure 50 ohms in this situation.
>
>Now, stick a short directly across the third branch of the T connector
>("pinning" the coax, so to speak), and see what your analyzer tells
>you. It may read high-Z, or low-Z, or intermediate-Z with a lot of
>reactance... but it'll be a high indicated SWR, and it won't be
>anywhere near 50+j0.

Will it be greater tha say 500+janything? Depends on frequency.

Actually using a tee and doing that creates a working stub that is
tuned in the low microwave region and something reactive below
that. In fact the open Tee at high uhf is also a trouble maker.

>Then, disconnect the antenna from the "T". The impedance and
>indicated SWR won't change significantly.

But t does, depending on frequency and line length on the other side
of the short. Try it for an exact 1/2wave from source to load and pin
at 1/4wave point. the reflected impedences at both ends will be
in play. The pin is only a perfect short at very low frequencies
as you go up the "short" gets "longer" and behaves as a reactance.
It's a complex circuit and there are lumped analogs.

>Try changing the length of the RG58 between the "T" and the analyzer.
>You'll get a different Z value with the short in place (whether the
>antenna is or is not attached) but it'll still have a really high SWR,
>no matter what coax length you choose.

Its easier to vary F than change length. But yes you will see varying
impedences (R+J) all over the map.

I keep saying a perfect short would behave as stated. Most real world components like that pin would be a pain at 3.5mhz and something else at 432mhz.

Allison
KB!gmx

5085. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 05:34:09 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <43ae2f42$1@nntp.zianet.com>
Source record: 66032

There is a simple answer, and others have given good advice:

The premis of the question is incorrect. A simple antenna such as a collinear using a quarter wave with a phasing coil and topped with another half wavelength segment will give power gain by modifying the radiation pattern.
That statement should work better than OK.

tomerbr wrote:
> this was a qustion from my instractor in college
>

5086. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 06:10:21 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <UGqrf.13163$Lb1.12293@bignews3.bellsouth.net>
Source record: 66033

"tomerbr" <t_bruchiel@nana.co.il> wrote in message
news:1135422926.082522.168780@o13g2000cwo.googlegroups.com...
> this was a qustion from my instractor in college
>
The assumption may be an error to begin with.
For starters I would say a 5/8 wave antenna may be "more ideal".
If you picture the radiation pattern similar to a balloon with a finite amount of water (the 'power') , the coverage of the antenna can be represented by the shape of the containment.
If you press down on the balloon center with your hand then the circle of coverage will be larger - since we assume the cell towers will be on the same plane as the antenna, you can see that a flat, circular shape will cover more map area than a spherical shape would cover. A 5/8 wave antenna is but one of many types which can exhibit 'gain' by distributing the pattern in more usable directions.
I suspect the antenna the Instructor is referring to is 5/8 wave, and he tried to throw you off with the 'Ideal antenna" statement.
Merry Christmas

5087. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 06:19:59 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <WPqrf.13164$Lb1.11697@bignews3.bellsouth.net>
Source record: 66034

> that is solder and the outer is crimp or clamp so is crimp and or clamp
> ok for the outer conductor and solder better for the inner?

I vote all 3 crimp it clamp it and solder it.
make a good mechanical connection - then solder it.

5088. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 06:37:07 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <76fsq1hrdjvdt82p798efnk9iui6jv4vlo@4ax.com>
Source record: 66035

ORIGINAL MESSAGE:

On Sun, 25 Dec 2005 01:19:59 -0500, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>
>I vote all 3 crimp it clamp it and solder it.
>make a good mechanical connection - then solder it.
>
~~~~~~

Don't forget to add Loctite, spot weld, drop forge, nuclear laser,
explosive forming, refractory conditioning, epoxy, RTV, sixteen
layers of Scotch #33 tape and the Pope's blessing.

Those who are non-Catholics have a problem. :-)

73, Bill W6WRT
~~~~~~

5089. Re: Effective Height of Vertical Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 14:20:00 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43aea9d5_3@newsfeed.slurp.net>
Source record: 66036

"Reg Edwards" wrote
> Your quote refers to "Types of antennas normally used" and "for
> certain configurations". This indicates to me an uncertain range of
> dimensions. Perhaps some antennas in the range considered were
> top-capacitance loaded, others were not, some thick and fat, some very
> slender, some guyed, some not, some with tall base insulators, some
> not. Even Terman lumps together a range of dimensions and draws
> conclusions common to the collection.

Radiators were not lumped together to be covered in common by the equation I quoted. This section continues with individual equations for small loop, and Adcock antennas -- which further I omitted as indicated by the <snip> statement in my post.

Section 2-10 in Kraus' "Antennas," 3rd edition, has much more analysis of effective height. I know you scorn learned authors and their bibles, but perhaps a quick read of this would save you from repeating such investigations to your personal satisfaction, and answer a few of the questions you ask of others here. Maybe you can borrow a copy from your local library.

RF

5090. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 15:37:20 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <Q0zrf.37999$7h7.2834@newssvr21.news.prodigy.com>
Source record: 66037

Make that Scotch #33+ pelase....

Bill Turner wrote:
> ORIGINAL MESSAGE:
>
> On Sun, 25 Dec 2005 01:19:59 -0500, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
>
>
>>I vote all 3 crimp it clamp it and solder it.
>>make a good mechanical connection - then solder it.
>>
>
> ~~~~~~
>
> Don't forget to add Loctite, spot weld, drop forge, nuclear laser,
> explosive forming, refractory conditioning, epoxy, RTV, sixteen
> layers of Scotch #33 tape and the Pope's blessing.
>
> Those who are non-Catholics have a problem. :-)
>
> 73, Bill W6WRT
>

5091. test

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 15:47:11 UTC
From: Chris Fox NI4L <ni4l@charter.net>
Message-ID: <nbzrf.2922$5R3.2265@fe02.lga>
Source record: 66038

123

5092. Re: Ant. Considerations for the FT-857D

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 15:51:31 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <7ezrf.2488$bd.1021@tornado.tampabay.rr.com>
Source record: 66039

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:Mgirf.9375$3Z.5255@newsread1.news.atl.earthlink.net...
>
> "west" <westley@tampabay.rr.com> wrote in message
> news:6gfrf.57587$6e.57437@tornado.tampabay.rr.com...
> > If you live on a typical suburban lot and were contemplating purchasing
a
> > Yaesu FT-857D or perhaps the new Icom R-7000, what would you buy for an
> > antenna(s)? Is the QRN bad enough that you would stay way from a
> vertically
> > polarized antenna for HF? Should I take an interest in 160 meters or is
it
> a
> > relatively specialized band that is not worth the antenna considerations
> > initially? Been away from Ham radio for over 20 years but know enough to
> > think out my antenna strategy before buying the rig. Thanks for any
> > comments.
> >
>
> Could you give a price range and how much real estate you have ? I would
> like a 180 ft tower with seperate beams on it for each band but it is much
> out of my price range. Also hard to put up a 160 meter dipole on a 1/2
acre
> lot. Tell us what kind of antennas you are thinking of .
>
A suburban lot is a modest sized lot. Ideally I would have only 2 ant. 1 for
HF & one for 2m/220/440. although I see that there are all in ones available
but that would make the HF part, vertically polarized. I can forget 160m. I
know from days of old the QRN was almost intolerable at times with a
vertical. Thanks, Ralph for the post. BTW: I am only interested in
omni-directional at this time.

west
>
>

5093. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 15:59:07 UTC
From: James <cryo_man@cryoman.org>
Message-ID: <43AEC1C9.7737BC96@cryoman.org>
Source record: 66040

I recommend cryogenic processing of all coax connectors !

http://www.metal-wear.com/

> Don't forget to add Loctite, spot weld, drop forge, nuclear laser,
> explosive forming, refractory conditioning, epoxy, RTV, sixteen
> layers of Scotch #33 tape and the Pope's blessing.

5094. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 16:30:04 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <d1u283-s8b.ln1@p400bob.personal.cox.net>
Source record: 66041

Do you actually have any hard data on this Paul? Not that I dont believe you, just would like to know how many dB we are talking about. "sucked" doesnt translate very well...

I was surprised when I visited the US for the first time how much higher the cell towers were compared to Australia's. From what I understand though cell use in Australia (per unit pop) topped the world for a while and it was undesirable to have high towers because the larger cell size meant co-cell interference was more likely. Towers and antennas then ended up on shorter towers and building sides to allow for the higher density of users.

Towers in rural areas were of course a lot higher but they had an upper limit when you factored in the 32km limit for GSM systems. It was often frustrating when travelling in thee areas to see 3-4 cells sites in strong signal range but unable to make/receive calls because of that max distance restriction.

Cheers Bob W5/VK2YQA

Paul Johnson wrote:

> A couple hundred feet is taller than most (all?) cell towers. Nextel used
> to boast about having the tallest towers, around 110 feet max. Sprint's
> towers were the shortest before Nextel bought them at around 60 feet. This
> is why Sprint's signal really sucked balls before Nextel bought them out.
>

5095. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 17:44:12 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <8hmtq1lsrqanj6ogq518nrdcbcl4omj32i@4ax.com>
Source record: 66042

On Sun, 25 Dec 2005 04:05:07 GMT,
Allison-nospam@nouce.bellatlantic.net wrote:

>On Sun, 25 Dec 2005 01:51:01 -0000, dplatt@radagast.org (Dave Platt)
>wrote:
>
>>>I leave only this.
>>>
>>>At VHF and up it's common to use a shorted 1/4 wave section for
>>>second harmonic suppression at the output. Very effective and dirt
>>>cheap. The finals are not the least bit bothered.
>>
>>True, but that's not the situation we're dealing with here.
>>
>>If you place a shorted quarter-wave section directly at the
>>transmitter's terminals, in parallel with the antenna feedline, then
>>the transmitter "sees" the impedance of the feedline (its usual load)
>>in parallel with the impedance of the shorted stub (very high). The
>>net impedance is that of the load (the admittance of the shorted stub
>>is nearly zero) and the transmitter does not "notice" the presence of
>>the shorted stub.
>>
>>That's not the situation which occurs if the feedline itself is
>>shorted 1/4 waveline towards the load
>
>Only if the short is perfect or the frequency is low enough.
>Even for shorted stubs doing it right requires a bit of effort
>as even a loop at the end causes interesting effects.
>
>>In that situation, the *only* thing that the transmitter will see is
>>the shorted quarter-wavelength "stub" between itself and the short.
>>The impedance at the point of the short is nearly zero - it's the
>
>Nearly zero is not zero and it's not a constant with frequency.
>At 3.5mhz I will agree with you. At 350mhz it's going to show
>something different. At 3500mhz, who knows?
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>>impedance of the short itself, in parallel with the impedance of the
>>antenna as seen when looking up the remainder of the feedline. No
>
>However is it parallel or is it some complex reflection of the length
>to the antenna.
>
>>matter what the antenna's impedance is, the very low impedance of the

>>short itself is going to dominate the parallel combination. The
>>resulting near-zero-ohm combination will be transformed, by the
>>quarter-wavelength distance back to the transmitter, so that it
>>appears as an open circuit to the transmitter.
>>
>>The transmitter cannot, in effect, "see past the short circuit" to the
>>antenna itself.
>>
>>The same is true no matter how far up the feedline from the
>>transmitter the short/pin happens to be. At the point of the short,
>>the impedance is going to be nearly zero, and this near-zero impedance
>>will be transformed to some other value on the same very-high-SWR
>>circle (neglecting consideration of feedline loss, of course).
>>
>>No matter where you pin the coax, the transmitter is going to be
>>unhappy.
>>
>>>If a short appeared near a 1/4 wave node at operating frequency
>>>it might go unnoticed.
>>
>>Different situation, I'm afraid.
>>
>>If you have an antenna analyzer, try it out for yourself. Take an
>>arbitrary-length section of RG58 with a 50-ohm load at one end and a
>>BNC at the other. Run it into a BNC "T". Out the other leg of the T,
>>run an adjustable length of RG-58 to the antenna analyzer. You ought
>>to measure 50 ohms in this situation.
>>
>>Now, stick a short directly across the third branch of the T connector
>>("pinning" the coax, so to speak), and see what your analyzer tells
>>you. It may read high-Z, or low-Z, or intermediate-Z with a lot of
>>reactance... but it'll be a high indicated SWR, and it won't be
>>anywhere near 50+j0.
>
>Will it be greater tha say 500+janything? Depends on frequency.
>
>Actually using a tee and doing that creates a working stub that is
>tuned in the low microwave region and something reactive below
>that. In fact the open Tee at high uhf is also a trouble maker.
>
>>Then, disconnect the antenna from the "T". The impedance and
>>indicated SWR won't change significantly.
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>But t does, depending on frequency and line length on the other side
>of the short. Try it for an exact 1/2wave from source to load and pin
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>in play. The pin is only a perfect short at very low frequencies
>as you go up the "short" gets "longer" and behaves as a reactance.
>It's a complex circuit and there are lumped analogs.
>

>>Try changing the length of the RG58 between the "T" and the analyzer.
>>You'll get a different Z value with the short in place (whether the
>>antenna is or is not attached) but it'll still have a really high SWR,
>>no matter what coax length you choose.
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>Its easier to vary F than change length. But yes you will see varying
>impedences (R+J) all over the map.
>
>I keep saying a perfect short would behave as stated. Most real
> world components like that pin would be a pain at 3.5mhz and
>something else at 432mhz.
>
>Allison
>KB!gmx

Try it and you will be surprised.

73
Gary K4FMX

5096. Which Brand "Best" For Lightning Arrestor ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 17:48:58 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <7IednSLHv9ziRjPe4p2dnA@comcast.com>
Source record: 66043

Hello:

Anyone have any strong opinions regarding PolyPhaser, ICE, and Alpha Delta Lightning Arresters ?

Would be for a receive only antenna.

Do I want the dc blocked variety, or doesn't it matter for receive only (0.5 to 30 MHz) ?

Thanks,
Bob

5097. Re: Ant. Considerations for the FT-857D

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 17:54:31 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <20ntq15n5d5vfgph3kmrm8edtpdhssjtc8@4ax.com>
Source record: 66044

On Sun, 25 Dec 2005 15:51:31 GMT, "west" <westley@tampabay.rr.com>
wrote:

>>
>A suburban lot is a modest sized lot. Ideally I would have only 2 ant. 1 for
>HF & one for 2m/220/440. although I see that there are all in ones available
>but that would make the HF part, vertically polarized. I can forget 160m. I
>know from days of old the QRN was almost intolerable at times with a
>vertical. Thanks, Ralph for the post. BTW: I am only interested in
>omni-directional at this time.
>
>west

Depending on the size of your lot, a dipole for 80 or 40 is pretty
easy. I you make it an inverted V, that will give it a more
omnidirecitonal pattern, if that is what you want.

bob
k5qwg
>>
>>
>

5098. Re: Which Brand "Best" For Lightning Arrestor ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 18:39:22 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <To6dnaqIXIfFejPenZ2dnUVZ_tCdnZ2d@comcast.com>
Source record: 66045

Most lightning energy is in the 0.5 to 30.0 MHz portion of the spectrum!!!

Robert11 wrote:
> Hello:
>
> Anyone have any strong opinions regarding PolyPhaser, ICE, and Alpha Delta
> Lightning Arresters ?
>
> Would be for a receive only antenna.
>
> Do I want the dc blocked variety, or doesn't it matter for receive only (0.5
> to 30 MHz) ?
>
> Thanks,
> Bob
>
>

5099. Re: Ant. Considerations for the FT-857D

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 19:54:32 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <YNCrf.10225$nm.2797@newsread2.news.atl.earthlink.net>
Source record: 66046

"west" <westley@tampabay.rr.com> wrote in message
news:7ezrf.2488$bd.1021@tornado.tampabay.rr.com...
>
> > > lot. Tell us what kind of antennas you are thinking of .
> >
> A suburban lot is a modest sized lot. Ideally I would have only 2 ant. 1
for
> HF & one for 2m/220/440. although I see that there are all in ones
available
> but that would make the HF part, vertically polarized. I can forget 160m.
I
> know from days of old the QRN was almost intolerable at times with a
> vertical. Thanks, Ralph for the post. BTW: I am only interested in
> omni-directional at this time.
>
> west
> >
If you can put up a dipole, you may want to try a dipole, either trapped, or fed with open wire. An off center fed antenna is not bad either. You may have trouble getting enough wire in the ground for a vertical to work very well. Putting down 20 to 100 ground wires is more trouble than I care for. At low heights the dipoles, especially if inverted V types have a very broad pattern, almost omni-directiona. One thing about the dipoles is you can buy a bunch of wire at the local store for a small price. If you don't like it, you have not spent the $ 200-300 for the verticals.

For vhf FM work most any of the dual band verticals seem to be ok. I have not looked at any that cover the 220 band also. It may be hard to find a single antenna that will do 144/220/440 . I usually work ssb on the vhf bands and do very little on the repeaters so that has not been much of an issue with me. SSB usually requires a horizontal antenna as that is what most are using and you will take a big (around 20 db) hit going from one to the other.

5100. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 20:00:11 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <lautq19pjov0ulgn31fn8jd59j7qk3islh@4ax.com>
Source record: 66048

On Sun, 25 Dec 2005 20:22:05 GMT,
Allison-nospam@nouce.bellatlantic.net wrote:

>I have at 2400mhz too! Down around DC (sub 30mhz) your "pin"
>is a short and the effects are mostly (though measurable) a shorted
>coax with all the effects as expected. As you get up there in
>frequency the "short" as described doesn't behave as it did at DC.
>
>The problem is similar to another thread concerning real world
>components where the discussion finally recognized that like other
>real world components a short is not always what it may look like.

Sigh...
I can't differentiate between you and that other chap on this issue.
You both cite perfectly legitimate grounds and come to entirely
separate conclusions. You can't both be right, but neither of you seem
to be wrong!
Can we focus down on *one* issue to avoid disappearing up our own
backsides: as far as the tx is concerned, is the portion of the feed
line beyond the pin relevant at all or does it effectively cease to
exist, as would be the case at VLF/DC?
--

"What is now proved was once only imagin'd" - William Blake

5101. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 20:22:05 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <qhvtq1lep028tgc0gsq1e8fa8in9rparf9@4ax.com>
Source record: 66047

On Sun, 25 Dec 2005 12:44:12 -0500, Gary Schafer
<gaschafer@comcast.net> wrote:

>
>Try it and you will be surprised.
>
>73
>Gary K4FMX

I have at 2400mhz too! Down around DC (sub 30mhz) your "pin"
is a short and the effects are mostly (though measurable) a shorted
coax with all the effects as expected. As you get up there in
frequency the "short" as described doesn't behave as it did at DC.

The problem is similar to another thread concerning real world
components where the discussion finally recognized that like other
real world components a short is not always what it may look like.

Allison

5102. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 21:22:39 UTC
From: dplatt@radagast.org
Message-ID: <11qu3cv7eu6t505@corp.supernews.com>
Source record: 66049

In article <lautq19pjov0ulgn31fn8jd59j7qk3islh@4ax.com>,
Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk> wrote:

>>I have at 2400mhz too! Down around DC (sub 30mhz) your "pin"
>>is a short and the effects are mostly (though measurable) a shorted
>>coax with all the effects as expected. As you get up there in
>>frequency the "short" as described doesn't behave as it did at DC.

>>The problem is similar to another thread concerning real world
>>components where the discussion finally recognized that like other
>>real world components a short is not always what it may look like.

>Sigh...

>I can't differentiate between you and that other chap on this issue.
>You both cite perfectly legitimate grounds and come to entirely
>separate conclusions. You can't both be right, but neither of you seem
>to be wrong!

>Can we focus down on *one* issue to avoid disappearing up our own
>backsides: as far as the tx is concerned, is the portion of the feed
>line beyond the pin relevant at all or does it effectively cease to
>exist, as would be the case at VLF/DC?

It's really a question of the problem domain - that is, what are the
frequencies involved, and what are the sizes of the feedline and the
"width" of the shorting bar/pin? Allison and I have been talking
about rather different sets of test conditions. I think we're
actually in "violent agreement" about what actually goes on.

At upper-UHF and microwave frequencies, I agree that Allison is correct.
The length of the pin is a significant fraction of a wavelength, and
it thus does not behave as a true short circuit - rather, it's an
inductor of significant value shunted across the transmission line.
At these frequencies, in this problem domain, you have to consider the
shunt combination of two non-zero impedances. "Shorting" the feedline
with this 'straight pin' inductor will probably have a significant
effect on the impedance seen by the transmitter, but it won't be as
simple as I had portrayed.

At HF (and, I think, VHF up through the 2-meter frequency range) a
shorting pin of perhaps 1/4" in length is a negligible fraction of a
wavelength long. Whatever small amount of inductance it introduces
will have a reactive impedance whose magnitude is far below that of
the 50-ohm load, and its very high admittance will swamp the lower
admittance of the load. Hence, the load impedance will be of
negligible importance in deciding what the transmitter "sees" at these

frequencies, under these conditions... the transmitter "sees" only the impedance of the short itself, transformed by however much line is between transmitter and short.

If I can find a scrap BNC male connector, and make a shorting-plug out of it, I'll run the coax-and-T experiment I suggested, and post some actual numbers for the systems's behavior at those frequencies I can coerce out of my MFJ-269.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

5103. Re: PAR EF-SWL Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 22:00:55 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <m75uq1lme8kp3mbfo83ld20ivd3mn57smn@4ax.com>
Source record: 66050

On Sat, 24 Dec 2005 09:58:23 -0500, "Robert11" <rgsros@notme.com>
wrote:

>Hello:
>
>Really don't want to bother everyone in the forum with all my beginner type
>questions as relating
>to the PAR EF-SWL antenna.
>
>Anyone who is familiar with it, or has one, care to chat off-line with me, a
>bit, on it ?
>
>Thanks,
>Bob
>

I notice it is a 45-foot end-fed wire. That would make it 1/4-wave
long at about 5.2 Mhz. They claim it is optimally designed for
reception from 1 to 30 Mhz. Not sure how thay arrived at that claim.
It should work fine, but just about any random length wire will work
if you have a decent receiver :-)

bob
k5qwg

5104. Antenna coupling at 915 Mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 22:09:56 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <7eda3$43af18c9$18d64eeb$16022@KNOLOGY.NET>
Source record: 66051

Hi,
I have recently put a cordless phone on my boat. The boat is docked
and I would like the handheld to ring when I'm on the marina.The boat
is all aluminum and limits the distance the phone base will transmit
to the handheld. The distance is down to about 1/3. If it was only
limited to 2/3 of it's normal range I wouldn't have any problem!
I would like to put an antenna outside the boat to get the range up.
Any suggestions on how to couple the signal to an external antenna?
I have a picture on abse with the subjuct "915 Mhz antenna" See the
antenna with the coil, (ignore the short one, the is a 5.8Ghz antenna)
Any chance the antenna is 50ohm and I could remove it, attach a coax
and put the antenna back on the other end? :-/

Mike

5105. Re: Antenna reception theory

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 22:15:58 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ySErf.37398$dO2.23619@newssvr29.news.prodigy.net>
Source record: 66052

Amos Keag wrote:
> The sum of forces
> on the moon keep it from flying into space or from falling to earth.

Actually, that's only short term. The moon is presently receeding
and will someday reverse that trend and indeed fall to earth.
--
73, Cecil http://www.qsl.net/w5dxp

5106. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 22:24:20 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <o_Erf.37400$dO2.17697@newssvr29.news.prodigy.net>
Source record: 66053

Owen Duffy wrote:
> There is nothing in what you have said that suggests to me that VSWR
> is the cause of TVI (or feedline radiation in the more general case).

Please reference "Baluns: What They Do and How They Do It" by W7EL.
VSWR causes impedance transformation. Impedance transformation
varies the impedance. Baluns work better with some impedances than
they do with others. Therefore, VSWR can cause balun malfunction
accompanied by feedline radiation. All it takes is one time. And a
possible cause is not necessarily a probable cause.

There is nothing to suggest that you will be injured every time you
ride your motorcycle at 120 mph. All it takes is one time.
--
73, Cecil http://www.qsl.net/w5dxp

5107. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 22:31:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <N4Frf.37401$dO2.32134@newssvr29.news.prodigy.net>
Source record: 66054

Crazy George wrote:
> Those antennas aren't flat, and
> there are 2 transmitters, visual and aural.

The audio is not mixed with the main carrier?
--
73, Cecil http://www.qsl.net/w5dxp

5108. vertload.exe versus loadcoil.exe ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 22:55:39 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <J8KdnYXx0dnwvjLeRVn-uQ@comcast.com>
Source record: 66055

The programs vertload.exe and loadcoil.exe produce similar results for radiation efficiency and radiation resistance. In both cases the antenna is configured as a 6 meter vertical with a 10 cm long, 75 mm diameter coil in the middle.

However the coil dimensions or the input impedance do not match between the programs. Vertload predicts a 50 turn coil with an ATU capacitor of 1289 pf. While loadcoil predicts a 31 turn coil and 0 feedpoint reactance.

What causes the difference? Which one is the better model?

Thanks - Dan kb0qil

5109. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 22:59:02 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <qq7uq1549c0847101ni4369vcce55paijv@4ax.com>
Source record: 66056

On Sun, 25 Dec 2005 22:24:20 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Owen Duffy wrote:
>> There is nothing in what you have said that suggests to me that VSWR
>> is the cause of TVI (or feedline radiation in the more general case).
>
>Please reference "Baluns: What They Do and How They Do It" by W7EL.
>VSWR causes impedance transformation. Impedance transformation
>varies the impedance. Baluns work better with some impedances than
>they do with others. Therefore, VSWR can cause balun malfunction
>accompanied by feedline radiation.

Your example depends on the (mis)behaviour of a component (the balun)
external to the feedline as a vital link in the asserted relationship
between high VSWR and feedline radiation (both properties of the
feedline itself).

As you describe it the balun was not suited to the application, and it
is the interaction of the unsuited balun in the whole topology that
gives rise to feedline radiation.

In addressing the suitability issue, you could:
- change the environment external to the balun until the balun was
suitable; or
- replace the balun with one that suits the external environment.

If the balun were replaced with a balun that was effective, then
feedline radiation would be reduced sufficiently, without needing to
reduce the high VSWR on the feedline.

Excessive feedline radiation is not a necessary outcome of high VSWR,
high VSWR does not, of itself, cause feedline radiation.

If high VSWR does not, of itself, cause excessive feedline radiation,
then finding the root cause of feedline radiation means looking beyond
the myth that high VSWR feedlines radiate.

Owen
--

5110. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 23:06:32 UTC
From: dplatt@radagast.org
Message-ID: <11qu9fossjcp3a7@corp.supernews.com>
Source record: 66057

>If I can find a scrap BNC male connector, and make a shorting-plug out
>of it, I'll run the coax-and-T experiment I suggested, and post some
>actual numbers for the systems's behavior at those frequencies I can
>coerce out of my MFJ-269.

OK, I ran the test, and the results are pretty much as I had anticipated. Although the test arrangement and gear isn't lab-standard, I think it's good enough to confirm the basic principles.

Test equipment: MFJ-259 antenna analyzer, with an N-to-BNC adapter.

Transmission line and load: 12' length of RG-58 coax, with a 50-ohm Ethernet terminator attached to the end.

Shorting insertion: an additional 6' length of RG-58, with a couple of BNC "T" adapters, which can be inserted between the analyzer and the T-line-and-load. If the shorting plug is inserted it'll be 6' from the analyzer and 12' from the load.

Short circuit: a male BNC plug, with a short inserted between center pin and shell as far down inside the shell as possible.

First test: check quality of T-line and load, using only the 12' section of RG-58 between analyzer and load. Note that the Imag(load) numbers do not indicate the sign of the reactance... the MFJ won't do that, alas.

Frequency Real(load) Imag(load) Indicated SWR
2.5 52 4 1.0
5 58 6 1.2
10 57 7 1.2
15 49 1 1.0
20 56 6 1.1
50 54 2 1.1
144 51 4 1.0
166 59 8 1.2
440 1.4

Impression: either the RG-58 or the Ethernet terminator isn't exactly 50 ohms (not unexpected) or the MFJ's calibration isn't perfect (likewise) but the figures are good enough to let us draw some reasonable conclusions.

Second test: insert the 6' RG-58 and its T connectors between the analyzer and the 12' section. See how much this additional length of line, and the parasitics of the T connectors, affect the load and SWR.

Frequency Real(load) Imag(load) Indicated SWR
2.5 54 4 1.1
5 59 5 1.2
10 50 10 1.2
15 49 1 1.0
20 51 8 1.1
50 48 5 1.1
144 50 4 1.0
166 40 2 1.2
440 1.1

Impression: the measured values change a bit, but the SWRs are close or identical (save for the 440 measurement). The additional length of line, and the parasitics from the T connectors, are shifting things around a bit (especially at 440)... not unexpected.

Third test: connect the shorting plug to one of the T connectors. See what "pinning the line" does to the analyzer's view of the load.

Frequency Real(load) Imag(load) Indicated SWR
2.5 0 6 >31
5 0 12 >31
10 1 26 >31
15 1 43 >31
20 2 70 >31
50 0 44 28.7
144 7 33 15.4
166 166 353 13.0
440 >5

Impression: yeah, that looks like a short circuit, transformed via a feedline. Nothing close to a 50-ohm-resistive load shows up at any of the test frequencies.

Fourth test: disconnect the 50-ohm load from the end of the 12' line, creating an abrupt change in the load impedance. See what this does to the figures from the third test - how much of the antenna load change gets back "around" the short?

Frequency Real(load) Imag(load) Indicated SWR
2.5 0 6 >31
5 0 12 >31
10 1 25 >31
15 1 43 >31
20 2 70 >31
50 6 44 29.0
144 6 30 18.5
166 133 317 14.1
440 >5

Impression: changing the antenna load from 50-ohms-resistive to near-infinite made a slight change in the impedance seen by the analyzer, but not much at all at any frequency. The presence of the

short circuit 6 feet from the analuzer is still dominating the load that the analyzer "sees".

Special-distance test: with the short, and the 50-ohm load both in place, sweep the analyzer frequency around the ranges at which the analyzer-to-short distance is around 1/4 and 1/2 wavelength. See if we can "see past" the short under these conditions.

Measurements: with the short circuit in place, and a 50-ohm load at the end of the 12' line, an impedance peak (Z>1500 ohms) is noted when sweeping between 32.14 MHz and 32.94 MHz. An impedance minimum (Real(load) of 2-3 ohms, Imag(load) of 0 ohms) is noted between 65.7 MHz and 65.85 MHz. The indicated SWR remains high (22 or above) at all frequencies between the impedance maximum and impedance minimum... there's no point at which the load resembles anything like "50 ohms resistive, little reactive component".

Removing the 50-ohm load, and thus open-circuiting the antenna feedline, has no significant effect on the impedance as seen at the quarter-wavelength maximum, at the half-wavelength minimum, or at points in between.

Impression: we cannot "see past" the short circuit, no matter whether it's a quarter-wavelength from the transmitter, a half-wavelength, or some distance in between these two. The analyzer "sees" only what would be expected for a short circuit, transformed by 6' of coax.

Short-circuit quality test: measure impedance of the shorted BNC plug.

At 16 MHz and below, the MFJ-269 shows it as 0+0j. Above 16 MHz, some reactance shows up... 2 ohms at 28 MHz, 3 ohms at 42 MHz, 4 ohms and 55 MHz, 8 ohms at 112 MHz, 10 ohms at 144 MHz, 12 ohms at 169 MHz. The inductance of the shorted plug itself, and/or the length of the N-to-BNC adapter on the analyzer, is having some effect. SWR remains unreadably high: >31 up through VHF and >5 on 440. It's not the highest-quality "short circuit" in the world, for certain, but at HF and VHF it's close enough for our purposes here.

So... what do I conclude from this?

I conclude that at HF and VHF frequencies, if you accidentally short your transmitter-to-antenna coaxial feedline (with a pin, nail, or a loose strand of coax braid which "gets loose" inside a connector), you're going to present your transmitter with an unrealistic load (high, low, or nastily reactive) and that the power flow up the feedline is going to stop at the short circuit.

Since no "short circuit" in the real world is going to have 0+0j impedance, this isn't *absolutely* true, but you can probably consider it to be *practically* true and correct at these frequencies, with this sort of shorting.

I further conclude that with respect to the above, there's no 'magic' about shorts which happen to occur at a quarter-wavelength distance from the transmitter. In this situation, the transmitter will 'see' something which behaves like a quarter-wavelength shorted stub... the load further up the transmission line at the antenna remains 'invisible' to the transmitter.

At high-UHF and SHF/microwave frequencies, where a direct "short" is likely to be a significant fraction of a wavelength, then the additional reactance of the "short" will certainly affect how the undesired connection affects what the transmitter "sees". It may hurt, or help (helping to "tune out" reactance from the antenna itself), or may be completely invisible. Allison is entirely correct on this point, under these particular conditions.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

5111. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 23:31:49 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <q4auq1to8rbtoessssrpfk6m57ntncrldp@4ax.com>
Source record: 66058

On Sun, 25 Dec 2005 23:06:32 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>Second test: insert the 6' RG-58 and its T connectors between the
>analyzer and the 12' section. See how much this additional length of
>line, and the parasitics of the T connectors, affect the load and SWR.
>
>Frequency Real(load) Imag(load) Indicated SWR
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>5 59 5 1.2
>10 50 10 1.2
>15 49 1 1.0
>20 51 8 1.1
>50 48 5 1.1
>144 50 4 1.0
>166 40 2 1.2
>440 1.1

As expected.

>Impression: the measured values change a bit, but the SWRs are close or
>identical (save for the 440 measurement). The additional length of
>line, and the parasitics from the T connectors, are shifting things
>around a bit (especially at 440)... not unexpected.
>
>Third test: connect the shorting plug to one of the T connectors. See
>what "pinning the line" does to the analyzer's view of the load.
>
>Frequency Real(load) Imag(load) Indicated SWR
>2.5 0 6 >31
>5 0 12 >31
>10 1 26 >31
>15 1 43 >31
>20 2 70 >31
>50 0 44 28.7
>144 7 33 15.4
>166 166 353 13.0
>440 >5
>
>Impression: yeah, that looks like a short circuit, transformed via a
>feedline. Nothing close to a 50-ohm-resistive load shows up at any of
>the test frequencies.

Key thing is somewhere bwtween 144 and 440mhz something is happening
that is not a short circuit but, not tested either. Also a SWR of 5

while high tells us that collective losses (RG58) and instrument
limitations are hiding information.

>Fourth test: disconnect the 50-ohm load from the end of the 12' line,
>creating an abrupt change in the load impedance. See what this does
>to the figures from the third test - how much of the antenna load
>change gets back "around" the short?
>
>Frequency Real(load) Imag(load) Indicated SWR
>2.5 0 6 >31
>5 0 12 >31
>10 1 25 >31
>15 1 43 >31
>20 2 70 >31
>50 6 44 29.0
>144 6 30 18.5
>166 133 317 14.1
>440 >5
>
>Impression: changing the antenna load from 50-ohms-resistive to
>near-infinite made a slight change in the impedance seen by the
>analyzer, but not much at all at any frequency. The presence of the
>short circuit 6 feet from the analuzer is still dominating the load
>that the analyzer "sees".

Again at the spot frequencies tested. Lossy coax becomes a factor
at >200mhz (12ft at 440 is >1db loss).

>Special-distance test: with the short, and the 50-ohm load both in
>place, sweep the analyzer frequency around the ranges at which the
>analyzer-to-short distance is around 1/4 and 1/2 wavelength. See if
>we can "see past" the short under these conditions.
>
>Measurements: with the short circuit in place, and a 50-ohm load at
>the end of the 12' line, an impedance peak (Z>1500 ohms) is noted when
>sweeping between 32.14 MHz and 32.94 MHz. An impedance minimum
>(Real(load) of 2-3 ohms, Imag(load) of 0 ohms) is noted between 65.7
>MHz and 65.85 MHz. The indicated SWR remains high (22 or above) at
>all frequencies between the impedance maximum and impedance minimum...
>there's no point at which the load resembles anything like "50 ohms
>resistive, little reactive component".

Try it again using shorter (by 1/4) cables at 4x the frequency.

>Removing the 50-ohm load, and thus open-circuiting the antenna
>feedline, has no significant effect on the impedance as seen at the
>quarter-wavelength maximum, at the half-wavelength minimum, or at
>points in between.
>
>Impression: we cannot "see past" the short circuit, no matter whether
>it's a quarter-wavelength from the transmitter, a half-wavelength, or
>some distance in between these two. The analyzer "sees" only what

>would be expected for a short circuit, transformed by 6' of coax.
>
>Short-circuit quality test: measure impedance of the shorted BNC plug.
>
>At 16 MHz and below, the MFJ-269 shows it as 0+0j. Above 16 MHz, some
>reactance shows up... 2 ohms at 28 MHz, 3 ohms at 42 MHz, 4 ohms and
>55 MHz, 8 ohms at 112 MHz, 10 ohms at 144 MHz, 12 ohms at 169 MHz.
>The inductance of the shorted plug itself, and/or the length of the
>N-to-BNC adapter on the analyzer, is having some effect. SWR remains
>unreadably high: >31 up through VHF and >5 on 440. It's not the
>highest-quality "short circuit" in the world, for certain, but at HF
>and VHF it's close enough for our purposes here.
>
>So... what do I conclude from this?
>
>I conclude that at HF and VHF frequencies, if you accidentally short
>your transmitter-to-antenna coaxial feedline (with a pin, nail, or a
>loose strand of coax braid which "gets loose" inside a connector),
>you're going to present your transmitter with an unrealistic load
>(high, low, or nastily reactive) and that the power flow up the
>feedline is going to stop at the short circuit.

Definatly at HF, likely at low VHF. As we get to 300mhz we don't
know but, likely not good at all.

>Since no "short circuit" in the real world is going to have 0+0j
>impedance, this isn't *absolutely* true, but you can probably consider
>it to be *practically* true and correct at these frequencies, with
>this sort of shorting.
>
>I further conclude that with respect to the above, there's no 'magic'
>about shorts which happen to occur at a quarter-wavelength distance
>from the transmitter. In this situation, the transmitter will 'see'
>something which behaves like a quarter-wavelength shorted stub... the
>load further up the transmission line at the antenna remains
>'invisible' to the transmitter.

The last two tests suggests or at lest hints something is going on and
measurable.

>At high-UHF and SHF/microwave frequencies, where a direct "short" is
>likely to be a significant fraction of a wavelength, then the
>additional reactance of the "short" will certainly affect how the
>undesired connection affects what the transmitter "sees". It may
>hurt, or help (helping to "tune out" reactance from the antenna
>itself), or may be completely invisible. Allison is entirely correct
>on this point, under these particular conditions.

We do agree, if the conditions are unspecified are also likely
meaningless. If the conditions are specified we will likely agree.
I know it sounds picky to no end but it's about those little second
and third order things often ignored and renders answers that are

more lore than tested fact.

Allison

5112. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-25 23:36:30 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <22Grf.1055$UF3.831@newssvr25.news.prodigy.net>
Source record: 66059

Owen Duffy wrote:
> In addressing the suitability issue, you could:
> - change the environment external to the balun until the balun was
> suitable; or
> - replace the balun with one that suits the external environment.

So if TVI can be fixed, it never existed in the first place?
--
73, Cecil http://www.qsl.net/w5dxp

5113. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 00:08:37 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ipcuq1tc8t7g79gqjhb89n9gfat5eng2pt@4ax.com>
Source record: 66060

On Sun, 25 Dec 2005 22:31:09 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Crazy George wrote:
>> Those antennas aren't flat, and
>> there are 2 transmitters, visual and aural.
>
>The audio is not mixed with the main carrier?
It can be either way.

If you choose to use separate transmitters the demands on antenna
bandwidth are greatly reduced.
John Ferrell W8CCW

5114. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 00:17:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <QEGrf.1058$UF3.383@newssvr25.news.prodigy.net>
Source record: 66061

John Ferrell wrote:

> Cecil Moore <mycall@arrl.net> wrote:
>>The audio is not mixed with the main carrier?
>
> It can be either way.
>
> If you choose to use separate transmitters the demands on antenna
> bandwidth are greatly reduced.
> John Ferrell W8CCW

Thanks John, my IC-706 will receive the TV frequencies, but since I have never heard any audio, I assumed the audio and video were mixed to an IF frequency and then mixed to the TV frequency. (I have a reference book on TV but haven't looked at it in a long time).
--
73, Cecil http://www.qsl.net/w5dxp

5115. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 00:57:32 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43AF3FFC.8060502@comcast.net>
Source record: 66062

No. They are separate. Audio is FM and video is AM. Dan

Cecil Moore wrote:
> John Ferrell wrote:
>
>> Cecil Moore <mycall@arrl.net> wrote:
>>
>>> The audio is not mixed with the main carrier?
>>
>>
>> It can be either way.
>>
>> If you choose to use separate transmitters the demands on antenna
>> bandwidth are greatly reduced. John Ferrell W8CCW
>
>
> Thanks John, my IC-706 will receive the TV frequencies, but since
> I have never heard any audio, I assumed the audio and video were
> mixed to an IF frequency and then mixed to the TV frequency. (I
> have a reference book on TV but haven't looked at it in a long
> time).

5116. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 01:05:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <MlHrf.45274$tV6.281@newssvr27.news.prodigy.net>
Source record: 66063

dansawyeror wrote:
> No. They are separate. Audio is FM and video is AM. Dan

I can receive the commercial FM band just fine on my IC-706.
Why can't I receive TV audio on it?
--
73, Cecil http://www.qsl.net/w5dxp

5117. minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 01:28:15 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <Y5qdnWLjC5uu2jLenZ2dnUVZ_s2dnZ2d@comcast.com>
Source record: 66064

Is minimum Z, across a frequency scan, 'resonance' on a 1/4 wave vertical?

Is it resonance on a center loaded vertical?

Thanks - Dan kb0qil

5118. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 01:32:45 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <ilhuq19f0464c4i2r4229jle164p7t1o75@4ax.com>
Source record: 66065

On Thu, 22 Dec 2005 13:57:06 GMT, Jim Higgins
<invalid@invalid.invalid> wrote:

>On Thu, 22 Dec 2005 06:51:08 GMT, bpl_just_say_NO
><bpl_dude@nobplforme.com> wrote:
>
>>150 Million for ten years. that is a lot of money for nothing.
>>
>>DQE will also have a pilot program in Monroeville PA
>>
>>http://biz.yahoo.com/prnews/051215/cgth037.html?.v=44
>>
>>I don't think they can compete with the newer intel and
>>motorola technology for wireless.
>
>If the common folk play their cards right BPL can't compete with
>anyone anywhere. If rollout is inevitable it's time (past time

The PUCs want it for grid control and monitoring. The BPL marketers
have made it look like they can do that (which they can) plus have an
revenue stream from their costomers.

>actually) to go to the PUC and ask that everything related to BPL only
>be paid for from revenue gained from BPL. No shifting of revenue from
>power sales to support BPL - strictly separate. Also ask that service

They will just state they are running the service for monitoring and
control anyway so it'll be handy if any one wants to sign up.

>be provided promptly to anyone asking for it and everyone at the same
>price regardless of whether in a large city or one with a population
>of 22 at the end of 150 miles of dead-end power line. After all, BPL
>promises high speed Internet access to EVERYONE and you can be sure

Some implented forms of BPL can't even deliver high speed with very
many customers before running into packet collisions which means wider
bandwidth or slower service.

>that at some point that was said. Hold them to it now, not 20 years
>from now. The result? BPL economics absolutely cannot support the
>promises made for it. If they have to fulfill the promises it's dead
>before it starts.

If they can be held off just two years regular broad band will be
widely available and cheaper. Rather than out in the country where
it's expensive to implement, they are finding the prime candidate are
offices and apartment buildings. OTOH once those offices and

apartments are up and running I wonder what kind of track record they'll have? Add a few real time gamers, VoIP, and some streaming video.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

5119. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 02:06:20 UTC
From: larry d clark <buddycl@swbell.net>
Message-ID: <welrf.1063$UF3.9@newssvr25.news.prodigy.net>
Source record: 66066

dansawyeror wrote:
> Is minimum Z, across a frequency scan, 'resonance' on a 1/4 wave vertical?
>
> Is it resonance on a center loaded vertical?
>
> Thanks - Dan kb0qil

resonance is defined as XL = XC

5120. Harry E. Landsberg, Jr., CIA Maltese Falcon: Kennedy assassination, IRAN/CONTRA, UFO's

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 03:37:21 UTC
From: Laura <lhann10243@earthlink.net>
Message-ID: <1135568241.709698.30700@o13g2000cwo.googlegroups.com>
Source record: 66067

Harry E. Landsberg, Jr., CIA Maltese Falcon: Kennedy assassination,
IRAN/CONTRA, UFO's

My late father, Harry E. Landsberg, Jr. is apparently one of the 35 CIA
Officers memorialized on the north wall of the Original Headquarters
Building lobby whose "names ... must remain secret, even in death."

Please see:

http://www.angelfire.com/journal2/landsbergphotos2/maltese_falcon_search_terms_maltese_falcon_cia_dot_gov.jpg

taking note of the search terms "maltese+falcon."

Then:

http://www.angelfire.com/journal2/landsbergphotos2/maltese_falcon_cia_dot_gov_memorial_wall.jpg

and

http://www.angelfire.com/journal2/landsbergphotos2/maltese_falcon_cia_dot_gov_memorial_wall_2.jpg

---

I was discredited as being mentally ill in 1981 and again in 1985. As
a result I was motivated to research family matters.

In 2004 I learned that my husband, Richard Hanning, Jr., was a
Marine/covert operator assigned to me. We met in 1985 and I knew I was
a target when I met him. I just didn't know I was his target.

We are divorced. My life has been in danger and I have been revealing
information about my family and their associates as a result.

Please see:

"Harry E. Landsberg, Jr. -- resemblance to man in photo with Specter"
http://home.earthlink.net/~lhann10243/index.html

and

"IRAN/CONTRA: Fleming O. Landsberg, Fleming Landsberg, U.S. Ordinance
[sic] Inc."
http://home.earthlink.net/~lhann10243/id85.html

and

"Landsbergs and Maddens -- Mirror" (UFO's)
http://www.angelfire.com/journal2/landsbergphotos/Landsbergs_and_Maddens_mirror.html

---

I am a survivor of satanic ritual abuse and mind control.

Please see:

"The Love Game"
http://home.earthlink.net/~sammark4/id2.html

and

"Scars and other signs of mind control"
http://home.earthlink.net/~sammark4/id5.html

My legal mother, Donna Jean Volkmer Landsberg, worked as secretary to
the Undersecretary of the Navy in the 1940's, likely James Forrestal.

He died under mysterious circumstances. Please see:

"The Death of James Forrestal" by Richard M. Dolan
http://keyholepublishing.com/Death%20of%20James%20Forrestal.htm

---

I had a vision of Donna as a three-headed bird (black heads.)

I was searching for photos of Vanessa Redgrave and found this photo
which was similar to the bird in my vision:

http://www.angelfire.com/journal2/landsbergphotos2/donnas_bird_head_more_like_this.jpg

Then searching on "Maltese Falcon" I came across "The Virtual Tour of
the CIA:"

http://images.google.com/imgres?imgurl=http://www.cia.gov/cia/information/
tour/83stars_lg.jpg&imgrefurl=http://www.cia.gov/cia/information/tour/
stars.html&h=465&w=600&sz=184&tbnid=fQ8WESE-YHkpWM:&tbnh=103&tbnw
=133&hl=en&start=130&prev=/images%3Fq%3D%2522maltese%2Bfalcon
%2522%26start%3D120%26svnum%3D10%26hl%3Den%26lr%3D%26sa%3DN

or

http://www.cia.gov/cia/information/tour/stars.html

There is no mention of the words "Maltese Falcon" on the page.

There was a Divine Intervention in late 2003 and I have been protected
as I have been enduring harassment in the astral plane.

Please see:

"Mystical Journey"
http://home.earthlink.net/~sammark4/id157.html

"Mystical Journey -- more"
http://home.earthlink.net/~silent_no_more99/id41.html

"Mystical Journey -- more ii"
http://home.earthlink.net/~sammark4lhann/id17.html

"Mystical Journey -- more iii"
http://home.earthlink.net/~twainablelhann/id17.html

and

"To My Friend"
http://home.earthlink.net/~sammark4/id214.html

"To My Friend -- more"
http://home.earthlink.net/~sammark4lhann/id33.html

"To My Friend -- more ii"
http://home.earthlink.net/~twainablelhann/id12.html

"To My Friend -- more iii"
http://home.earthlink.net/~twainable2lhann/id7.html

Laura Landsberg
305 Linden St., Apt. B
Fond du Lac, WI 54935
(920) 922-2599

5121. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 03:46:59 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1135568819.591648.37770@z14g2000cwz.googlegroups.com>
Source record: 66068

If the meter is misapplied, it's misapplied. If my transmitter is designed to operate optimally into a 300 ohm load and I use an "SWR" meter calibrated to 50 ohms, it's not going to do any better job indicating proper transmitter matching than indicating SWR on a 300 ohm line.

I will continue happily to call my SWR meter an SWR meter, and know enough about what's going on inside it to apply it appropriately--whether it's to the task of giving me an indication of SWR on a transmission line or the task of indicating proper loading on a source.

I suppose there are many who will continue to happily call them SWR meters and NOT understand how to properly apply them. I'd much rather work on educating them to understand how the meter works and how to apply it properly than to insist they call it by some other name. I've been at the task since B.R.E.

But of course, not everyone sees it that way.

Cheers--and Merry Christmas,
Tom

5122. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 03:58:23 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <bRJrf.52562$k76.13104@bignews6.bellsouth.net>
Source record: 66069

> Make that Scotch #33+ pelase....

Negative
Scotchfil insulation putty, followed by Scotch 88+ (as opposed to 33+)
scotch 88 is weatherproof.
Then a little Scotchkote insulating varnish.
Then take it all to a motor repair shop and send it through the VPI process.

no to welding
no to loctite and RTV

5123. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 03:59:49 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <d8cfa$43af6aec$97d55fa7$2656@ALLTEL.NET>
Source record: 66070

You can if you tune to the audio offset.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:MlHrf.45274$tV6.281@newssvr27.news.prodigy.net...
> dansawyeror wrote:
> > No. They are separate. Audio is FM and video is AM. Dan
>
> I can receive the commercial FM band just fine on my IC-706.
> Why can't I receive TV audio on it?
> --
> 73, Cecil http://www.qsl.net/w5dxp

5124. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 04:09:02 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <nMadnTc3p6FH8TLeRVn-iA@adelphia.com>
Source record: 66071

Hal Rosser wrote:
>>Make that Scotch #33+ pelase....
>
>
> Negative
> Scotchfil insulation putty, followed by Scotch 88+ (as opposed to 33+)
> scotch 88 is weatherproof.
> Then a little Scotchkote insulating varnish.
> Then take it all to a motor repair shop and send it through the VPI process.
>
> no to welding
> no to loctite and RTV
>
>

So anyhow, why are crimps inferior to soldering?

- 73 de Mike KB3EIA -

5125. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 04:15:22 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <1aruq1hvfibcbanikv8vs5cfbv00fkn01n@4ax.com>
Source record: 66072

On Sun, 25 Dec 2005 22:59:49 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>You can if you tune to the audio offset.
>
>"Cecil Moore" <mycall@arrl.net> wrote in message
>news:MlHrf.45274$tV6.281@newssvr27.news.prodigy.net...
>> dansawyeror wrote:
>> > No. They are separate. Audio is FM and video is AM. Dan
>>
>> I can receive the commercial FM band just fine on my IC-706.
>> Why can't I receive TV audio on it?

Fred, is the correct answer because although analogue TV sound in
frequency modulated on a sub carrier of the composite signal, the sub
carrier is not transmitted in the "commercial FM band".

Cecil's IC-706 may not cover the entire TV broadcast bands, he only
asked why, when he can receive the commercial fm band just fine, can
he not receive TV sound in general.

Cecil probably knows the answer.

Owen

>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
--

5126. No link attitude!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 04:22:04 UTC
From: n9zle <NoSpam@nospam.com>
Message-ID: <MdKrf.37455$dO2.5960@newssvr29.news.prodigy.net>
Source record: 66073

No link attitude!

http://www.n9zle.com/forum/

What is it with this no-link to other site attitude?
Years ago when the internet was in its infancy just about any site would add your site as a link from theirs. In return you would do the same. But now it has come to NO-LINKS. Not even in the forums. I have had a website located on tripod for about 9 years over those nine years I had a link to qrz dot com That site received over a million hits. And many users went from that site to qrz and on-to Icomamerica dot com. I have always supported Icom. They have never given a link on their site to mine. I have always supported qrz. But of course he(AA7BQ) never put a link on his site to mine. Well you may say that "I never asked". And that is true. But recently I have noticed he has been deleting my posts. ALL OF THEM. He never contacted me telling me why. AA7BQ just deleted them. I build CIV cables and sell a few of them every week to amateur operators who want them. When I posted one on his site. I found he deleted the post soon after it was placed there.

My beliefs are.
1. QRZ AKA AA7BQ no longer has the amateur radio attitude.
2. AA7BQ has gone fully commercial but calls his site "The Ham Radio Super Site"
3. AA7BQ does not have your best interest in mind.

I can also prove what I am writing here.
For one if he claims he is nothing but a commercial site then why does he ask for donations?
If he is not a commercial site than why will he not allow me to post my CIV cables on his site?

That takes care of number 2
Now for number 1 and 3. If some one knows the truth about something but keeps it from you he is a liar.
No mater how you put it, he is a liar. On the QRZ site Fred is there to help you renew your license. Or so he leads you to believe so. He charges you for it. Mr. Lloyd has never revealed it to any amateurs that you can renew your license or do an address change at the fcc.gov web site for FREE. Yes TOTAL FREE at the FCC web site.
The forms at the FCC web site or no harder to fill out than his.

His CD. He charges 24.95 plus tax and shipping. On that CD is data he obtained from the FCC and got it for FREE, he sales it to you. Also he has software, created by programmers like MYSELF. And MODS that have been made available from the manufactures and other HAMS like ME! I have been contributing to Amateur Radio community for greater than 10 years, and have

received very little for software I created. Never complained when it was copied. I have performed and created several of the MODS for various transceivers. Never asked a penny for it. I never commercialized HAM RADIO. And NEVER took money from some one for something they could get FREE else where.

I am sure many of you would like to ask me "what I am going to do about it?" Here is my answer.

I have created an open forum on my web site http://www.n9zle.com/forum/

There you can post a link to your own site even if it is a commercial site. You can post any ham radio equipment you have for sell on the site.

You can do a callsign lookup at my site from the FCC database, not that stupid qrz thing.
I will soon put together an open source database that I will sell for the price of the CD plus the true cost of shipping. About two bucks total. Once you install the database on your system, you will be able to download updates for FREE. I will make drivers available to programmers to access the database in several different languages and operating systems. I will also attempt to make the database available on the internet for FREE to download.

I only ask for a little help from other HAMS like myself. I need a few elmers that are willing to moderate some of the forums. It is easy and you will find it fun. If you have any suggestions on new forums or sections please logon to my site and make a post.

73s N9ZLE

5127. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 05:26:11 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <T8adne2UmIVy4zLeRVn-sA@adelphia.com>
Source record: 66074

alex wrote:
> Crimp is also very common in aerospace
> and military.

And probably for a reason! ;^)

- 73 de Mike KB3EIA -

5128. Re: No link attitude!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 05:57:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <fDLrf.4483$4o7.4087@newssvr24.news.prodigy.net>
Source record: 66075

...or maybe he's just tired of all the garbage being linked to his site (intentionally or not). Not a 'ham' attitude anymore, or just maybe not the same kind of ham you are? Get over it...
- 'Doc

5129. Re: Harry E. Landsberg, Jr., CIA Maltese Falcon: Kennedy assassination, IRAN/CONTRA, UFO's

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 05:58:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <pELrf.4484$4o7.2910@newssvr24.news.prodigy.net>
Source record: 66076

```
> Laura Landsberg
> 305 Linden St., Apt. B
> Fond du Lac, WI 54935
> (920) 922-2599
>

You just made the 'junk' list.
- 'Doc
```

5130. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:06:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <kLLrf.45853$tV6.6004@newssvr27.news.prodigy.net>
Source record: 66077

Fred W4JLE wrote:
> You can if you tune to the audio offset.

I have run the IC-706 all up and down the channel 3
60-66 MHz frequencies while in College Station, TX
and cannot hear the audio anywhere.
--
73, Cecil http://www.qsl.net/w5dxp

5131. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:24:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <B0Mrf.46071$tV6.14621@newssvr27.news.prodigy.net>
Source record: 66078

Owen Duffy wrote:
> Cecil probably knows the answer.

Actually, I don't. My IC-706 certainly covers 60-66 MHz which
is channel 3 in College Station, TX. I jumped to the conclusion
that since I couldn't hear WFM audio anywhere on that band, that
the audio wasn't detectable until down-converted to the
intercarrier. It is possible that I hit some dead air time and
gave up too soon.

I just cracked open my TV reference book and it indicates there
are two ways to detect the sound, split IF reception and intercarrier
reception. What now seems most likely is that I didn't tune high
enough up to the 65.75 MHz sound carrier frequency or if I did
tune that high, I hit some dead air time with no modulation.

Next time I'm over there, I will try again.
--
73, Cecil http://www.qsl.net/w5dxp

5132. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:24:58 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <bs2vq11fdk7g5uvr13e6ec5g2p2atrnb5p@4ax.com>
Source record: 66079

On Mon, 26 Dec 2005 06:06:08 GMT, Cecil Moore <mycall@arrl.net> wrote:

>Fred W4JLE wrote:
>> You can if you tune to the audio offset.
>
>I have run the IC-706 all up and down the channel 3
>60-66 MHz frequencies while in College Station, TX
>and cannot hear the audio anywhere.

Is the sound subcarrier supposed to be at 65.75MHz for your Ch3?
--

5133. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:30:03 UTC
From: dplatt@radagast.org
Message-ID: <11qv3fbeossj9cb@corp.supernews.com>
Source record: 66080

In article <kLLrf.45853$tV6.6004@newssvr27.news.prodigy.net>,
Cecil Moore <mycall@arrl.net> wrote:

>I have run the IC-706 all up and down the channel 3
>60-66 MHz frequencies while in College Station, TX
>and cannot hear the audio anywhere.

For what it's worth, I'm able to use my Kenwood TS-2000 to tune in the audio carrier of our local Channel 2 station. According to my cheat sheet, 2's video carrier is at 55.25, with audio carrier 4.5 MHz higher... hence 59.75 MHz. It seems to tune in best on my radio at 59.745.

Your channel 3 audio carrier ought to be at 61.25 + 4.5 = 65.75 MHz.

I don't have my service monitor handy so I can't tell for certain what the peak FM carrier deviation is, but it's definitely broad enough to cause serious distortion on my TS-2000 (which is set up for ham FM deviations of around 5 KHz). My recollection is that TV audio carrier deviation is similar to that of commercial FM broadcasts.

It's possible that your IC-706 isn't willing/able to lock onto a carrier with such a high deviation, perhaps? or perhaps it needs to be switched manually to a "wide FM" mode to do so in this frequency range?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

5134. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:36:45 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <1cMrf.46192$tV6.28306@newssvr27.news.prodigy.net>
Source record: 66081

dansawyeror wrote:
> Is minimum Z, across a frequency scan, 'resonance' on a 1/4 wave vertical?

The Xc=XL frequency is not always minimum Z and
is also not always minimum SWR according to my
MFJ-259B.
--
73, Cecil http://www.qsl.net/w5dxp

5135. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:39:53 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ZeMrf.46228$tV6.34143@newssvr27.news.prodigy.net>
Source record: 66082

Owen Duffy wrote:
> Is the sound subcarrier supposed to be at 65.75MHz for your Ch3?

I think that's a valid assumption. It's possibly a cockpit
error of some kind. I will have to try again.
--
73, Cecil http://www.qsl.net/w5dxp

5136. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:41:40 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <EgMrf.46246$tV6.13668@newssvr27.news.prodigy.net>
Source record: 66083

Dave Platt wrote:
> It's possible that your IC-706 isn't willing/able to lock onto a
> carrier with such a high deviation, perhaps? or perhaps it needs to
> be switched manually to a "wide FM" mode to do so in this frequency
> range?

It's also possible that I am senile and need to try again.
--
TNX & 73, Cecil http://www.qsl.net/w5dxp

5137. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 06:51:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <hqMrf.46343$tV6.37478@newssvr27.news.prodigy.net>
Source record: 66084

Dave Platt wrote:
> It's possible that your IC-706 isn't willing/able to lock onto a
> carrier with such a high deviation, perhaps?

I just drug out the IC-706 manual. It receives channel 2
on the HF antenna and channel 3 on the VHF antenna. :-)
--
73, Cecil http://www.qsl.net/w5dxp

5138. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 07:06:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11qv5juldpa5pe9@corp.supernews.com>
Source record: 66085

The point of minimum Z (that is, minimum magnitude of Z) will probably be close to resonance. Resonance is the frequency at which the reactance is zero. In a typical antenna near resonance, the reactance changes much faster than resistance with frequency. This causes the magnitude of the impedance, and the SWR, to be minimum near the resonant frequency. It should be true for the antennas you asked about. It isn't true for all antennas, however.

Roy Lewallen, W7EL

dansawyeror wrote:
> Is minimum Z, across a frequency scan, 'resonance' on a 1/4 wave vertical?
>
> Is it resonance on a center loaded vertical?
>
> Thanks - Dan kb0qil

5139. More connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 08:34:02 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <FVNrf.44409$ih5.2056@dukeread11>
Source record: 66086

Tell me why can't one place stock and sale all the connectors I want?
What a pain. I'm curious if someone knows of an online source that
stocks all of the following

Cable Ends
N Male crimp for LMR 240
N Female crimp for LMR 240
N Male crimp for LMR 400
N Female crimp for LMR 400
N Male crimp for LMR 600
N Female crimp for LMR 600
SMA Male Crimp for LMR 240
SMA Female Bulkhead Crimp for LMR 240

Adapters
N Male to UHF Female
N Female to UHF Male
N Male to SMA Female

BTW, who is the inept clueless moron that decided UHF Female should be
called SO-239 and UHF Male should be called PL-259? And why do people
still call them that? While I'm ranting, they should rename it to VHF
or maybe even HF, it certainly shouldn't be called a UHF connector.

--
Chris W
KE5GIX

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give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

5140. Re: More connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 08:50:59 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <74-dnfRH9JqOMzLeRVn-rA@adelphia.com>
Source record: 66087

Chris W wrote:
(snip)
> BTW, who is the inept clueless moron that decided UHF Female should be
> called SO-239 and UHF Male should be called PL-259? And why do people
> still call them that? While I'm ranting, they should rename it to VHF
> or maybe even HF, it certainly shouldn't be called a UHF connector.

The SOcket-239 is obviously the female half and the PLug-239 is the
male half, if you are into innies and outies.

This page has a pretty good description of various connectors:
http://ece-www.colorado.edu/~kuester/Coax/connchart.htm
and more:
http://en.wikipedia.org/wiki/RF_connector

5141. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 12:45:20 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <966dnWzkCP5_eDLenZ2dnUVZ_tednZ2d@comcast.com>
Source record: 66088

Chris W wrote:
> I am new in ham radio and want to get set up to make the coax assemblies
> I will inevitably be needing in the future. I am planing on using only
> LMR style coax 240, 400, 600 and maybe some 900 if I get into the 1.2ghz
> stuff. So is it better to use the crimp, clamp or solder on
> connectors. In the case of the center conductor, there are some where
> that is solder and the outer is crimp or clamp so is crimp and or clamp
> ok for the outer conductor and solder better for the inner? I welcome
> all points of view on this. Thanks for you input.
>

USA DOD and NASA [DOD STD 454 et al] specifications insist that both a secure and stable mechanical connection, crimp or clamp, be used for strength, temperature and fatigue stability; and, that solder or weld be used, occassion appropriate, for electrical connectivity.

In the typical amateur usage that would include a strain relief [crimp or clamp] for those connections where a mechanical stress [bend or weight] and solder.

5142. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 13:00:12 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43afe89d$1_4@newsfeed.slurp.net>
Source record: 66089

Isn't it necessary to define an impedance against which the antenna input impedance and SWR is referenced? It may not always be 50 ohms or some other "standard" impedance.

For example, a self-resonant 1/2-wave dipole in free space has an input Z of about 65 +j0 ohms, but will not constitute a 1:1 SWR to an r-f system that otherwise is 50 ohms, even though antenna reactance is zero.

RF

"Roy Lewallen" wrote:
> The point of minimum Z (that is, minimum magnitude of Z) will probably be
> close to resonance. Resonance is the frequency at which the reactance is
> zero. In a typical antenna near resonance, the reactance changes much
> faster than resistance with frequency. This causes the magnitude of the
> impedance, and the SWR, to be minimum near the resonant frequency. It
> should be true for the antennas you asked about. It isn't true for all
> antennas, however.
>
> Roy Lewallen, W7EL
>
> dansawyeror wrote:
>> Is minimum Z, across a frequency scan, 'resonance' on a 1/4 wave
>> vertical?
>>
>> Is it resonance on a center loaded vertical?
>>
>> Thanks - Dan kb0qil

5143. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 13:36:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <doork9$ba7$1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66090

SWR is the dimensionless ratio of two voltages, a maximum and a minimum, which may be measured along a transmission line, spaced apart by 1/4-wavelength of line.

Or it can be the ratio of two similarly displaced currents.

It is fully described without reference to line impedance, source impedance, terminating impedance, line length, or where the max and min volts are located.

Incidentally, before it can be used for anything, extra information is needed.

==========

"Richard Fry" <rfry@adams.net> wrote in message news:43afe89d$1_4@newsfeed.slurp.net...
> Isn't it necessary to define an impedance against which the antenna input
> impedance and SWR is referenced? It may not always be 50 ohms or some other
> "standard" impedance.

5144. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 13:48:19 UTC
From: Paul Burridge <pb@shove.your.spam.up.your.arse.atlanticstar.co.uk>
Message-ID: <g1tvq1h1gdc3mvi4jmqfkc4jm7hpqqrktl@4ax.com>
Source record: 66094

On Mon, 26 Dec 2005 08:04:02 -0600, "Richard Fry" <rfry@adams.net>
wrote:

><Allison-nospam@nouce.bellatlantic.net> wrote
>>
>> At VHF and up it's common to use a shorted 1/4 wave section for
>> second harmonic suppression at the output. Very effective and dirt
>> cheap. The finals are not the least bit bothered.
>__________
>
>Yes, and in typical configuration it is an electrical 1/4-wave coaxial
>section connected in parallel with both conductors of the main transmission
>line. It does not terminate the main transmission line, so this
>application/example is not very relevant to the "pin through the coax"
>question of the OP. And it would not result in a dead short at the carrier
>frequency, no matter where it is located in the output system. Some FM
>broadcast antennas also include them to supply a DC short from inner to
>outer conductors of the antenna coax to provide some protection from
>lightning.
>
>A 1/4-wave shorted stub is used at frequencies as low as the MW broadcast
>band. The need there is to add a deep notch at stations whose 2nd harmonic
>falls in the broadcast band. This stub is used to add to the attenuation of
>the already compliant 2nd harmonic level coming out of the tx, but which,
>without the stub can be heard on broadcast receivers within a short distance
>from the broadcast antenna site. WJR (760 kHz) is one station using this
>technique.

That just strikes me as plain stoopid. At MW, such filtering would be
far better achieved by lumped elements. A quarter wave stub at such
frequencies appears impractical, unwieldy and rather expensive!
--

"What is now proved was once only imagin'd" - William Blake

5145. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 14:04:02 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43aff794_5@newsfeed.slurp.net>
Source record: 66091

<Allison-nospam@nouce.bellatlantic.net> wrote
>
> At VHF and up it's common to use a shorted 1/4 wave section for
> second harmonic suppression at the output. Very effective and dirt
> cheap. The finals are not the least bit bothered.

Yes, and in typical configuration it is an electrical 1/4-wave coaxial section connected in parallel with both conductors of the main transmission line. It does not terminate the main transmission line, so this application/example is not very relevant to the "pin through the coax" question of the OP. And it would not result in a dead short at the carrier frequency, no matter where it is located in the output system. Some FM broadcast antennas also include them to supply a DC short from inner to outer conductors of the antenna coax to provide some protection from lightning.

A 1/4-wave shorted stub is used at frequencies as low as the MW broadcast band. The need there is to add a deep notch at stations whose 2nd harmonic falls in the broadcast band. This stub is used to add to the attenuation of the already compliant 2nd harmonic level coming out of the tx, but which, without the stub can be heard on broadcast receivers within a short distance from the broadcast antenna site. WJR (760 kHz) is one station using this technique.

RF (WJR engr in mid-1960s)

5146. Re: More connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 14:21:06 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <vruvq1p9so9sgjosac63hj3mu6ikp7ng1m@4ax.com>
Source record: 66092

On Mon, 26 Dec 2005 02:34:02 -0600, Chris W <1qazse4@cox.net> wrote:

>Tell me why can't one place stock and sale all the connectors I want?
>What a pain. I'm curious if someone knows of an online source that
>stocks all of the following
>
>Cable Ends
>N Male crimp for LMR 240
>N Female crimp for LMR 240
>N Male crimp for LMR 400
>N Female crimp for LMR 400
>N Male crimp for LMR 600
>N Female crimp for LMR 600
>SMA Male Crimp for LMR 240
>SMA Female Bulkhead Crimp for LMR 240
>
>Adapters
>N Male to UHF Female
>N Female to UHF Male
>N Male to SMA Female

http://www.thewireman.com

Call their phone number, and they should have whatever you need.

They also have a nice little book, The Wirebook IV, that explains a
lot of history about connectors, coax and wire.

bob
k5qwg

>
>BTW, who is the inept clueless moron that decided UHF Female should be
>called SO-239 and UHF Male should be called PL-259? And why do people
>still call them that? While I'm ranting, they should rename it to VHF
>or maybe even HF, it certainly shouldn't be called a UHF connector.

5147. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 14:25:57 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43affcb7_2@newsfeed.slurp.net>
Source record: 66093

"Reg Edwards" :
> SWR is the dimensionless ratio of two voltages, a maximum and a
> minimum, which may be measured along a transmission line,
> spaced apart by 1/4-wavelength of line.
> It is fully described without reference to line impedance, source
> impedance, terminating impedance, line length, or where the max and
> min volts are located.

SWR may be calculated as (A+B)/(A-B), where A & B are square roots of expressions containing both the complex load impedance, and the reference impedance against which the SWR is referred.

RF

5148. Re: More connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 16:47:01 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <R7Vrf.44546$ih5.34081@dukeread11>
Source record: 66095

John Popelish wrote:

> Chris W wrote:
> (snip)
>
>> BTW, who is the inept clueless moron that decided UHF Female should
>> be called SO-239 and UHF Male should be called PL-259? And why do
>> people still call them that? While I'm ranting, they should rename
>> it to VHF or maybe even HF, it certainly shouldn't be called a UHF
>> connector.
>
>
> The SOcket-239 is obviously the female half and the PLug-239 is the
> male half, if you are into innies and outies.

Sounds like a reasonable explanation for SO and PL, but it doesn't
explain the 239 vs 259

>
> This page has a pretty good description of various connectors:
> http://ece-www.colorado.edu/~kuester/Coax/connchart.htm
> and more:
> http://en.wikipedia.org/wiki/RF_connector

Thanks for the links

--
Chris W
KE5GIX

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One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

5149. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 16:59:27 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <PjVrf.38263$7h7.20720@newssvr21.news.prodigy.com>
Source record: 66096

Reg Edwards wrote:

> SWR is the dimensionless ratio of two voltages, a maximum and a
> minimum, which may be measured along a transmission line, spaced apart
> by 1/4-wavelength of line.

Or (|Vfor|+|Vref|)/(|Vfor|-|Vref|)

> Or it can be the ratio of two similarly displaced currents.

Or (|Ifor|+|Iref|)/(|Ifor|-|Iref|)

Or at an (antenna feedpoint) impedance of (R +/- jX) and a resistive Z0

SQRT[(R+Z0)^2+X^2] + SQRT[(R-Z0)^2+X^2] divided by
SQRT[(R+Z0)^2+X^2] - SQRT[(R-Z0)^2+X^2]

Or (1+rho)/(1-rho) if the reflection coefficient is known.

Or it can be [SQRT(Pfor)+SQRT(Pref)]/[SQRT(Pfor)-SQRT(Pref)]
which is the indirect one a typical MFJ dual-needle SWR meter
uses.
--
73, Cecil http://www.qsl.net/w5dxp

5150. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 17:03:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <AnVrf.38264$7h7.2029@newssvr21.news.prodigy.com>
Source record: 66098

Richard Fry wrote:
> SWR may be calculated as (A+B)/(A-B), where A & B are square roots of
> expressions containing both the complex load impedance, and the
> reference impedance against which the SWR is referred.

I have an EXCEL spreadsheet that calculates SWR seven different
ways, if I remember correctly.
--
73, Cecil http://www.qsl.net/w5dxp

5151. Re: More connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 17:07:04 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <xLednQscQNbFvy3enZ2dnUVZ_t6dnZ2d@adelphia.com>
Source record: 66097

Chris W wrote:
> John Popelish wrote:
>
>> Chris W wrote:
>> (snip)
>>
>>> BTW, who is the inept clueless moron that decided UHF Female should
>>> be called SO-239 and UHF Male should be called PL-259? And why do
>>> people still call them that? While I'm ranting, they should rename
>>> it to VHF or maybe even HF, it certainly shouldn't be called a UHF
>>> connector.
>>
>>
>>
>> The SOcket-239 is obviously the female half and the PLug-239 is the
>> male half, if you are into innies and outies.
>
>
> Sounds like a reasonable explanation for SO and PL, but it doesn't
> explain the 239 vs 259

I didn't even see that there were two numbers. These part numbers
were originally in a list of many variations in military part numbers.
Perhaps these two examples were just the most popular ones in that
list of variations.

5152. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 17:54:12 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b02d86_1@newsfeed.slurp.net>
Source record: 66099

"John Ferrell" wrote
>>Crazy George wrote:
>>The audio is not mixed with the main carrier?
> It can be either way.

TV aural uses a separate transmitter from TV visual, because the visual amplifier in a TV tx is not linear enough to amplify both the aural and visual waveforms while maintaining r-f intermods sufficiently low (to FCC spec). The aural and visual signals are combined with mutual isolation of the txs, and radiated by a single antenna, typically.

In an emergency, TV stations sometimes combine A&V at exciter level and pipe them through the visual PA, which is operated at reduced power to minimize r-f intermods. Typically the TV station is not meeting spec then, however.

> If you choose to use separate transmitters the demands
> on antenna bandwidth are greatly reduced.

Reducing antenna bandwidth needed also would require separate antenna systems for the aural and visual transmitters. That is done, occasionally - but not often. This doesn't reduce the bandwidth needed by the visual tx by very much, however. Generally it's more cost-effective to use a single antenna to radiate both A&V.

RF (RCA Broadcast systems field engineer, 1965-1980)

5153. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 18:10:47 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b03169$1_5@newsfeed.slurp.net>
Source record: 66100

US TV aural is frequency modulated, with +/-25 kHz deviation defined as 100% modulation. Pre-emphasis of 75 microseconds is applied to program audio.

It is transmitted as a discrete r-f waveform about 250 kHz below the upper edge of the TV channel. TV receivers typically demodulate it using an FM detector tuned to the 4.5 MHz intercarrier product present in the output signal of its video detector. Therefore if the TV visual carrier (only) goes off the air, no audio will be heard at the TV set, either.

Any communications-type receiver capable of tuning to, and demodulating the TV aural carrier will enable listening to it. Even some little "pocket" AM/FM radio receivers have that ability.

RF

5154. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 18:21:56 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b03407_5@newsfeed.slurp.net>
Source record: 66101

"Reg Edwards" wrote
> Who cares what is the SWR on the transmission line provided the
> transmitter is loaded with its correct load resistance?

Probably most people who don't want to destroy their transmission line.

Apparently this does not include your esteemed self.

RF

5155. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 18:43:30 UTC
From: dplatt@radagast.org
Message-ID: <11r0eeir3pvs40e@corp.supernews.com>
Source record: 66102

In article <hqMrf.46343$tV6.37478@newssvr27.news.prodigy.net>,
Cecil Moore <mycall@arrl.net> wrote:

>> It's possible that your IC-706 isn't willing/able to lock onto a
>> carrier with such a high deviation, perhaps?
>
>I just drug out the IC-706 manual. It receives channel 2
>on the HF antenna and channel 3 on the VHF antenna. :-)

#splorf#

Well, I suppose it does make sense in a way, but it sorta seems to
violate the Law of Least Astonishment!

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

5156. Re: Shorting out a transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 18:57:23 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b03c56_3@newsfeed.slurp.net>
Source record: 66103

"Paul Burridge" wrote >>
>>A 1/4-wave shorted stub is used at frequencies as low as the MW broadcast
>>band. The need there is to add a deep notch at stations whose 2nd
>>harmonic
>>falls in the broadcast band. This stub is used to add to the attenuation
>>of
>>the already compliant 2nd harmonic level coming out of the tx, but which,
>>without the stub can be heard on broadcast receivers within a short
>>distance
>>from the broadcast antenna site. WJR (760 kHz) is one station using this
>>technique. (RF quote)
>
> That just strikes me as plain stoopid. At MW, such filtering would be
> far better achieved by lumped elements. A quarter wave stub at such
> frequencies appears impractical, unwieldy and rather expensive!

It also provides a low-impedance and fairly wideband path to ground for the insulated, series-fed tower used by most broadcast stations -- which drains off any static charges that may collect on the tower, and so reduces the probability of lightning strikes.

Lumped elements are less effective at this.

RF

5157. Physically short multi band HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 20:03:41 UTC
From: SWArmory <swarmory@comcast.net>
Message-ID: <x0Yrf.131652$%X.50503@fe07.news.easynews.com>
Source record: 66104

I am looking for information on construction a small (physically) multi band
HF beam/yagi type antenna. Any input is welcomed

Thanks

ED
KA4LQI

5158. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 20:32:49 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-2F4648.12324926122005@morgoth.sfu.ca>
Source record: 66105

In article <11qv3fbeossj9cb@corp.supernews.com>,
dplatt@radagast.org (Dave Platt) wrote:

> For what it's worth, I'm able to use my Kenwood TS-2000 to tune in the
> audio carrier of our local Channel 2 station. According to my cheat
> sheet, 2's video carrier is at 55.25, with audio carrier 4.5 MHz
> higher... hence 59.75 MHz. It seems to tune in best on my radio at
> 59.745.
>
> Your channel 3 audio carrier ought to be at 61.25 + 4.5 = 65.75 MHz.

The normal video carrier frequency for US TV stations is 1.25 MHz above the low frequency end of the channel, and the audio carrier frequency is 4.5 MHz higher than that. But some station assignments specify that the video carrier should be a small number of kHz above or below the frequency described above, with the audio carrier still 4.5 MHz above the (displaced) video carrier so that when the TV receiver is properly (mis)tuned, both carriers will be converted to the expected intermediate frequencies. Perhaps your channel 2 station has been moved downhill 5 kHz. In any case the +/- 25 kHz deviation for 100% modulation would make the audio sound pretty ugly on a narrow band ham receiver.

David, ex-W8EZE

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

5159. Re: Physically short multi band HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 21:00:25 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <JRYrf.1249$UF3.831@newssvr25.news.prodigy.net>
Source record: 66106

"SWArmory" <swarmory@comcast.net> wrote in message
news:x0Yrf.131652$%X.50503@fe07.news.easynews.com...
>I am looking for information on construction a small (physically) multi
>band
> HF beam/yagi type antenna. Any input is welcomed
>
> Thanks
>
> ED
> KA4LQI

You might want to look into a multiband Hexbeam. A 10, 15 and 20 meter multiband Hexbeam would weigh in at under 15-20 pounds and less than 20 feet in diameter. Optimum height is 30 feet and a medium size TV rotor will handle one. Spiderbeams are similar but a little larger spacewise.

Harold
KD5SAK

5160. Re: vertload.exe versus loadcoil.exe ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 21:06:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dopm0micr1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66107

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:J8KdnYXx0dnwvjLeRVn-uQ@comcast.com...
> The programs vertload.exe and loadcoil.exe produce similar results
for radiation
> efficiency and radiation resistance. In both cases the antenna is
configured as
> a 6 meter vertical with a 10 cm long, 75 mm diameter coil in the
middle.
>
> However the coil dimensions or the input impedance do not match
between the
> programs. Vertload predicts a 50 turn coil with an ATU capacitor of
1289 pf.
> While loadcoil predicts a 31 turn coil and 0 feedpoint reactance.
>
> What causes the difference? Which one is the better model?
>
> Thanks - Dan kb0qil

==========
Hello Dan,

Both programs will accept input parameters for a short coil-loaded
resonant vertical above ground. But they are designed to output
different computed parameters and do not use exactly the same models
or calculating methods.

The input parameters are stated in different forms and when comparing
one program with the other it is important to ensure the correct
antenna dimensions are entered. In particular, the overall heights
should be the same and the centre of the loading coil must be at the
same height above ground on both models.

I am unable to check your figures. You have given me insufficient
information. The resonant frequency is essential.

But to satisfy myself there is not a bug I have modelled the following
antenna using both programs -

Using program LOADCOIL

Overall height = 6 metres.
Mast diameter = 10 mm.
Rod diameter = 5 mm.
Coil Length = 100 mm.
Coil Diameter = 75 mm.

Location of coil center = 59.5% of overall height.
Ground loss resistance = 5 ohms.
Resonant frequency = 3.8 MHz.

Using program VERTLOAD

Mast height = 3.52 metres.
Mast diameter = 10 mm.
Coil length = 0.1 metres.
Coil diameter = 75 mm.
Rod length = 2.38 metres.
Rod diameter = 5 mm.
Ground loss resistance = 5 ohms.
Resonant frequency = 3.8 MHz.

The height of the coil above ground is that which maximises radiating
efficiency for a given physical size of coil.

As a check on agreement between the two programs, compare the few
computed output parameters which are common to both -

Programs VERTLOAD and LOADCOIL

Radiation resistances = 5.6 and 5.1 ohms.
Feedpoint resistances = 12 and 14 ohms.
Efficiencies = 47% and 35.1%.
Turns on coil = 43 and 40 turns.
Coil wire diameters, 1.63 and 1.64 mm.

The difference between efficiencies is 1.3 dB.

I think the some of the differences can be due to program Vertload
neglecting the increase in effective coil diameter due to being wound
on a former of nominal diameter.

For different frequencies and antenna heights there will be different
sets of differences but of similar magnitudes.

The more accurate program is probably Loadcoil because it was
specially designed to find maximum efficiency by sliding the coil up
and down the antenna. The effect of the length of the coil on
radiation resistance is probably more accurately taken into account.
It is also a more recent program.

In practice there's nothing to choose between them. The uncertainty
in results will be controlled by the uncertainty in input data,
particularly the uncertainty in ground loss resistance.

Reg, G4FGQ.

5161. measurement error or bad coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 21:43:05 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <N7ednVZ2xdN3_i3enZ2dnUVZ_vydnZ2d@comcast.com>
Source record: 66108

I have a section of air core Beldin coax, with the center feed separated by a single wind of plastic insulator. The section is about 65 meters long. I added enough RG58 to the feed end to get a full wave length. I then measured the impedance using aa Autek analyzer. It read 30 Ohms.

The coaxpair program predicts for coax with a loss of about 10 db per km an impedance of about 11.5 Ohms. The cable should be better then this.

Is this difference leaky or bad coax? Is it reasonable to assume water in the cable? If it is water is there a practical way to get it out?

Thanks - Dan

5162. Re: vertload.exe versus loadcoil.exe ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 21:54:46 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43B066A6.908@comcast.net>
Source record: 66109

Thank you very much.

Can you speak to the calculated ATU value in VertLoad? Is it the value to match to a 50 Ohm coax?

One of the program set simulates a dipole with a base coil centered between the elements. Is there a program to simulate a dipole with each of the arms center loaded? I was trying to approximate this by vertload/loadcoil simulations. They should be pretty close.

Thanks - Dan kb0qil

Reg Edwards wrote:
> "dansawyeror" <dansawyeror@comcast.net> wrote in message
> news:J8KdnYXx0dnwvjLeRVn-uQ@comcast.com...
>
>>The programs vertload.exe and loadcoil.exe produce similar results
>
> for radiation
>
>>efficiency and radiation resistance. In both cases the antenna is
>
> configured as
>
>>a 6 meter vertical with a 10 cm long, 75 mm diameter coil in the
>
> middle.
>
>>However the coil dimensions or the input impedance do not match
>
> between the
>
>>programs. Vertload predicts a 50 turn coil with an ATU capacitor of
>
> 1289 pf.
>
>>While loadcoil predicts a 31 turn coil and 0 feedpoint reactance.
>>
>>What causes the difference? Which one is the better model?
>>
>>Thanks - Dan kb0qil
>
>
> ==
> Hello Dan,

>
> Both programs will accept input parameters for a short coil-loaded
> resonant vertical above ground. But they are designed to output
> different computed parameters and do not use exactly the same models
> or calculating methods.
>
> The input parameters are stated in different forms and when comparing
> one program with the other it is important to ensure the correct
> antenna dimensions are entered. In particular, the overall heights
> should be the same and the centre of the loading coil must be at the
> same height above ground on both models.
>
> I am unable to check your figures. You have given me insufficient
> information. The resonant frequency is essential.
>
> But to satisfy myself there is not a bug I have modelled the following
> antenna using both programs -
>
> Using program LOADCOIL
> ----------------------------------
> Overall height = 6 metres.
> Mast diameter = 10 mm.
> Rod diameter = 5 mm.
> Coil Length = 100 mm.
> Coil Diameter = 75 mm.
> Location of coil center = 59.5% of overall height.
> Ground loss resistance = 5 ohms.
> Resonant frequency = 3.8 MHz.
>
> Using program VERTLOAD
> ----------------------------------
> Mast height = 3.52 metres.
> Mast diameter = 10 mm.
> Coil length = 0.1 metres.
> Coil diameter = 75 mm.
> Rod length = 2.38 metres.
> Rod diameter = 5 mm.
> Ground loss resistance = 5 ohms.
> Resonant frequency = 3.8 MHz.
>
> The height of the coil above ground is that which maximises radiating
> efficiency for a given physical size of coil.
>
> As a check on agreement between the two programs, compare the few
> computed output parameters which are common to both -
>
> Programs VERTLOAD and LOADCOIL
> --
> Radiation resistances = 5.6 and 5.1 ohms.
> Feedpoint resistances = 12 and 14 ohms.

> Efficiencies = 47% and 35.1%.
> Turns on coil = 43 and 40 turns.
> Coil wire diameters, 1.63 and 1.64 mm.
>
> The difference between efficiencies is 1.3 dB.
>
> I think the some of the differences can be due to program Vertload
> neglecting the increase in effective coil diameter due to being wound
> on a former of nominal diameter.
>
> For different frequencies and antenna heights there will be different
> sets of differences but of similar magnitudes.
>
> The more accurate program is probably Loadcoil because it was
> specially designed to find maximum efficiency by sliding the coil up
> and down the antenna. The effect of the length of the coil on
> radiation resistance is probably more accurately taken into account.
> It is also a more recent program.
>
> In practice there's nothing to choose between them. The uncertainty
> in results will be controlled by the uncertainty in input data,
> particularly the uncertainty in ground loss resistance.
> ----
> Reg, G4FGQ.
>
>

5163. Re: measurement error or bad coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 22:02:47 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <srp0r19sfha9fmqiubblqaoalo3deaa52s@4ax.com>
Source record: 66110

On Mon, 26 Dec 2005 13:43:05 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>I have a section of air core Beldin coax, with the center feed separated by a
>single wind of plastic insulator. The section is about 65 meters long. I added
>enough RG58 to the feed end to get a full wave length. I then measured the
>impedance using aa Autek analyzer. It read 30 Ohms.
>
>The coaxpair program predicts for coax with a loss of about 10 db per km an
>impedance of about 11.5 Ohms. The cable should be better then this.
>
>Is this difference leaky or bad coax? Is it reasonable to assume water in the
>cable? If it is water is there a practical way to get it out?
>
>Thanks - Dan

Dan, you are a master of asking questions with partial / unreliable
information... and you have done it again!

Doesn't the Belden cable have a legible type marking?

How much RG58 did you add? (Why?)

What frequency did you make the measurement?

Was it 30+j0?

What was the objective of the measurement? If it was to determine
cable loss, does the Autek book give you a procedure for doing that?

Owen
--

5164. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 23:05:38 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <527e$43b0776a$97d55fa7$15010@ALLTEL.NET>
Source record: 66111

65.75 is the magic frequency. It does appear the WFM mode can not be used on this frequency on the 706 MKIIG I have. In the FM position, while distorted it is copyable. The radio shows WFM mode, but it certainly isn't in the wide mode.

Now I have to get in the circuitry and see why the WFM is not operable on this band.

"Cecil Moore" <mycall@arrl.net> wrote in message news:kLLrf.45853$tV6.6004@newssvr27.news.prodigy.net...
> Fred W4JLE wrote:
> > You can if you tune to the audio offset.
>
> I have run the IC-706 all up and down the channel 3
> 60-66 MHz frequencies while in College Station, TX
> and cannot hear the audio anywhere.
> --
> 73, Cecil http://www.qsl.net/w5dxp

5165. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-26 23:53:02 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <yn%rf.47581$6e1.26@newssvr14.news.prodigy.com>
Source record: 66112

Fred W4JLE wrote:
> 65.75 is the magic frequency. It does appear the WFM mode can not be used on
> this frequency on the 706 MKIIG I have. In the FM position, while distorted
> it is copyable. The radio shows WFM mode, but it certainly isn't in the wide
> mode.

My original problem was with an original IC-706 which I sold.
I'm now mobile with an IC-706MKII with DSP. But my mode switch
switches from FM to AM to FM ... and never shows WFM at all,
not even when tuned to 88-108 MHz so commercial FM or TV is not
worth listening to. I have a Sony Walkman that does receive VHF
TV audio and my CCRadio+ does also.
--
73, Cecil http://www.qsl.net/w5dxp

5166. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 00:19:21 UTC
From: Paul Johnson <baloo@ursine.ca>
Message-ID: <9td683-rpv.ln1@ursine.ca>
Source record: 66113

Top posting reduces readability and destroys context. It is harmful.
http://ursine.ca/Top_Posting

Bob Bob wrote:

> Do you actually have any hard data on this Paul? Not that I dont believe
> you, just would like to know how many dB we are talking about. "sucked"
> doesnt translate very well...

Alas, none that I can share except in the abstract due to nondisclosure
agreements.

--
Paul Johnson
Email and Instant Messenger (Jabber): baloo@ursine.ca
Got jabber? http://ursine.ca/Ursine:Jabber

5167. Re: measurement error or bad coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 01:15:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r15cu46m2rc9e@corp.supernews.com>
Source record: 66114

Owen Duffy wrote:
>
> Dan, you are a master of asking questions with partial / unreliable
> information... and you have done it again!
>
> Doesn't the Belden cable have a legible type marking?
>
> How much RG58 did you add? (Why?)
>
> What frequency did you make the measurement?
>
> Was it 30+j0?
>
> What was the objective of the measurement? If it was to determine
> cable loss, does the Autek book give you a procedure for doing that?
>

Three additional questions:

What was connected to the far end of the coax when you made the measurement?

How did you determine that the combination cable was one wavelength long?

What was the angle of the impedance, or the resistive and reactive (R
and X) parts?

Roy Lewallen, W7EL

5168. Re: minimum Z on a center loaded vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 02:09:25 UTC
From: John - kd5yi <groups5MUNGE@verizon.net>
Message-ID: <doq7oq01tqf@enews2.newsguy.com>
Source record: 66116

"Cecil Moore" <mycall@arrl.net> wrote in message
news:AnVrf.38264$7h7.2029@newssvr21.news.prodigy.com...
> Richard Fry wrote:
>> SWR may be calculated as (A+B)/(A-B), where A & B are square roots of
>> expressions containing both the complex load impedance, and the
>> reference impedance against which the SWR is referred.
>
> I have an EXCEL spreadsheet that calculates SWR seven different
> ways, if I remember correctly.
> --
> 73, Cecil http://www.qsl.net/w5dxp

What does the spreadsheet do if you don't remember correctly?

73,
John

5169. N9ZLE.COM forum a success!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 02:21:23 UTC
From: n9zle <NoSpam@nospam.com>
Message-ID: <Dy1sf.40729$q%.35980@newssvr12.news.prodigy.com>
Source record: 66115

N9ZLE.COM forum a success!

After one day up there is now 8 registered users, and 38 posts. We have had
36 guests come by and take a look at the postings.
This forum is slightly different than most internet forums because of the
following.
We are holding to the Amateur Radio ideals and principles.
We have a section for anonymous posts.
You may post a link to your personal or commercial site.
All opinions are appreciated and accepted as long as they are not slanderous
or unclean.
There is a callsign lookup at the top of the forum on every page.
We are dedicated to helping our fellow HAM in what ever his/her needs are.
Please stop by and make a suggestion on any additional forums you believe
the BBS may need,

73s and 88s N9ZLE

5170. Re: More connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 02:39:27 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <zP1sf.8535$7P2.5056@trnddc07>
Source record: 66117

"Chris W" <1qazse4@cox.net> wrote in message
news:R7Vrf.44546$ih5.34081@dukeread11...
> John Popelish wrote:
>
>> Chris W wrote:
>> (snip)
>>
>>> BTW, who is the inept clueless moron that decided UHF Female should be
>>> called SO-239 and UHF Male should be called PL-259? And why do people
>>> still call them that? While I'm ranting, they should rename it to VHF
>>> or maybe even HF, it certainly shouldn't be called a UHF connector.
>>
Perhaps not exclusively UHF- but what do you perceive the problem of
SO-239/PL-259 at UHF- say 70cM? If it is loss, how much is the loss of a
mated pair?

Dale W4OP

5171. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 02:54:25 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <31cca$43b0ad09$97d55fa7$9391@ALLTEL.NET>
Source record: 66118

In the setup menu, you can disable unused modes. Go back in and turn it on.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:yn%rf.47581$6e1.26@newssvr14.news.prodigy.com...
> Fred W4JLE wrote:
> > 65.75 is the magic frequency. It does appear the WFM mode can not be
used on
> > this frequency on the 706 MKIIG I have. In the FM position, while
distorted
> > it is copyable. The radio shows WFM mode, but it certainly isn't in the
wide
> > mode.
>
> My original problem was with an original IC-706 which I sold.
> I'm now mobile with an IC-706MKII with DSP. But my mode switch
> switches from FM to AM to FM ... and never shows WFM at all,
> not even when tuned to 88-108 MHz so commercial FM or TV is not
> worth listening to. I have a Sony Walkman that does receive VHF
> TV audio and my CCRadio+ does also.
> --
> 73, Cecil http://www.qsl.net/w5dxp

5172. Re: measurement error or bad coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 03:31:54 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <fy2sf.16870$wq.12829@bignews7.bellsouth.net>
Source record: 66119

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:N7ednVZ2xdN3_i3enZ2dnUVZ_vydnZ2d@comcast.com...
> I have a section of air core Beldin coax, with the center feed separated
by a
> single wind of plastic insulator. The section is about 65 meters long. I
added
> enough RG58 to the feed end to get a full wave length. I then measured the
> impedance using aa Autek analyzer. It read 30 Ohms.

I don't get it.

5173. Re: Antenna coupling at 915 Mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 03:35:30 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <DB2sf.16884$wq.744@bignews7.bellsouth.net>
Source record: 66120

"amdx" <amdx@worldnet.att.net> wrote in message
news:7eda3$43af18c9$18d64eeb$16022@KNOLOGY.NET...
> Hi,
> I have recently put a cordless phone on my boat. The boat is docked
> and I would like the handheld to ring when I'm on the marina.The boat
> is all aluminum and limits the distance the phone base will transmit
> to the handheld. The distance is down to about 1/3. If it was only
> limited to 2/3 of it's normal range I wouldn't have any problem!
> I would like to put an antenna outside the boat to get the range up.
> Any suggestions on how to couple the signal to an external antenna?
> I have a picture on abse with the subjuct "915 Mhz antenna" See the
> antenna with the coil, (ignore the short one, the is a 5.8Ghz antenna)
> Any chance the antenna is 50ohm and I could remove it, attach a coax
> and put the antenna back on the other end? :-/
>

A passive repeater sounds do-able. run a coax from one antenna to the other
through the bulkhead.

5174. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 03:53:44 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <IS2sf.16936$wq.11817@bignews7.bellsouth.net>
Source record: 66121

Right you are.
Like I said - using a 5/8 wave vertical flattens out the "doughnut of propogation."
And using two - back-to-back as a dipole will exhibit gain as well - over a dipole.

5175. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 04:04:44 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <113sf.16964$wq.9439@bignews7.bellsouth.net>
Source record: 66122

>
> So anyhow, why are crimps inferior to soldering?
>
> - 73 de Mike KB3EIA -

crimps can 'work loose'
Same reason you have 5 lug nuts on your wheel instead of 2 or 3.

5176. Re: measurement error or bad coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 04:07:07 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43B0BDEB.5090203@comcast.net>
Source record: 66123

Roy, thanks.

1. The far end was open.

2. I used an 8405a and a directional coupler connected in reverse. I zeroed the 8405a open stub between the driven signal and the reflected signal. I then added a coax segment and the feedline to bring the the 8405a back to near zero deflection at a frequency near the frequency of interest. I then tweaked the frequency to re-zero the reflected signal.

3. I believe the reading was 30R and 0j. The intention was to tune frequency and the meter to one electrical wave length and reach zero x.

Dan

Roy Lewallen wrote:
> Owen Duffy wrote:
>
>>
>> Dan, you are a master of asking questions with partial / unreliable
>> information... and you have done it again!
>>
>> Doesn't the Belden cable have a legible type marking?
>>
>> How much RG58 did you add? (Why?)
>>
>> What frequency did you make the measurement?
>>
>> Was it 30+j0?
>>
>> What was the objective of the measurement? If it was to determine
>> cable loss, does the Autek book give you a procedure for doing that?
>>
>
> Three additional questions:
>
> What was connected to the far end of the coax when you made the
> measurement?
>
> How did you determine that the combination cable was one wavelength long?
>
> What was the angle of the impedance, or the resistive and reactive (R
> and X) parts?
>
> Roy Lewallen, W7EL

5177. Re: measurement error or bad coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 04:15:22 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <2ud1r1lri3sqppjrmocr30ftms485h4t0t@4ax.com>
Source record: 66124

On Mon, 26 Dec 2005 13:43:05 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>I have a section of air core Beldin coax, with the center feed separated by a
>single wind of plastic insulator. The section is about 65 meters long. I added
>enough RG58 to the feed end to get a full wave length. I then measured the
>impedance using aa Autek analyzer. It read 30 Ohms.
>
>The coaxpair program predicts for coax with a loss of about 10 db per km an
>impedance of about 11.5 Ohms. The cable should be better then this.
>
>Is this difference leaky or bad coax? Is it reasonable to assume water in the
>cable? If it is water is there a practical way to get it out?
>

The hints in this guessing game are:
- this might be the popular Belden 9913, lets proceed on that
assumption;
- that 65m is less than a full wave, so the frequency of the test must
less than 3.87MHz;
- the loss at the frequency of interest might be 10dB/km, implies 7MHz
for 9913 (MLL for 9913 at 3.875MHz is around 7.4dB, and less at
~3.6MHz);

Bzzzt... does not compute, inconsistent input data.

Some trivia:

The input resistance to a 65m shorted stub of 9913 at its half wave
resonance at 3.875MHz should be around 2.8+j0 ohms.

The input resistance to a 65m open stub of 9913 at its half wave
resonance at 3.875MHz should be around 900+j0 ohms.

It is anyone's guess what adding an unspecified piece of RG58 will do.

An accurate SWR meter can be used to roughly assess the loss, measure
the loss into a shorted line at the frequency of interest, and convert
the measurement(s) into return loss. The matched line loss is half the
observed return loss. The SWR looking into a 65m shorted stub of 9913
at 3.6MHz should be around 19:1, rho about 0.90, for a return loss of
~0.92dB, and a MLL of 0.46dB. (If your SWR meter does not read 100%
reflected on a s/c applied to the SWR meter terminals, don't waste
your time doing the test.)

Owen
--

5178. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 04:47:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <DH3sf.37091$BZ5.9892@newssvr13.news.prodigy.com>
Source record: 66125

Fred W4JLE wrote:
> In the setup menu, you can disable unused modes. Go back in and turn it on.

Thanks Fred, success at last. I don't remember ever disabling
WFM mode and, to the best of my memory, I had never accessed
the Q0 setting before. I think I liked my Hallicrafters S-53A
better.
--
73, Cecil http://www.qsl.net/w5dxp

5179. Re: measurement error or bad coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 06:53:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r1p7hf402smbd@corp.supernews.com>
Source record: 65976

I agree with Owen, something here doesn't compute. The only way I can make sense out of it is if your line length is really an odd number of quarter waves, and it's exceptionally lossy. As a first thing to do in resolving the matter, I recommend measuring the velocity factor of the main coax. For best accuracy, short circuit the far end of the line with a low-inductance short circuit, and look for a low Z at the input. (You can even use a scope or diode detector for this.) At low frequencies, a single wire will do for the short; at higher frequencies, use multiple wires radially extending from the center to the shield, or a metal plate. At very low frequencies, the impedance will be low, increasining with frequency. At some point it'll rise and become very high, then drop again as frequency increases. Find the frequency where it's the lowest -- this is the frequency where the line is exactly a half wavelength. Physically measure the line and calculate the velocity factor. For line constructed like you describe, the velocity factor should be around 84%. A significantly lower factor probably means it has water in it. If it comes out about right, let us know and we'll go from there.

Roy Lewallen, W7EL

5180. OT HX-50 schematic please.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 07:33:58 UTC
From: Paul P <paulREMOVE@REMOVEppinyotREMOVE.com>
Message-ID: <G76sf.1128$yx.703@trndny01>
Source record: 65977

I am restoring a Hammarlund HX-50 for a fellow ham. The BAMA schematic is...quite bad. I am having trouble tracing and verifying the components of the unit. The rest of the manual is rather good in DjVu format. The owner has a reproduction manual on order and we hope it has a better schematic.

In the mean time I would like to get started and order caps, resistors, etc. Could a kind soul please email me a copy of the schematic? Also my parts list resistor section starts with R165. There seems to be a missing BAMA page in between pages 43 and 44.

Also, is there a better forum for such a request?

Thanks to all,
Paul
www.ppinyot.com

BTW - if you would like a stand alone (not plug in) DjVu application go to: http://www.tuberadio.it/utils.htm It is slick. I have combined many jpgs and gifs into a single file. The resolution is surprisingly good for the overall compressed file size.

5181. Re: Physically short multi band HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 10:45:38 UTC
From: F4DRH <F4DRH@wanadoo.fr>
Message-ID: <43b11b52$0$29193$8fcfb975@news.wanadoo.fr>
Source record: 65978

Hi ED,

An old-ages HF multi-band antenna called Maria Maluca was made of two elements (7.65 m / 5.05 m / boom length = 1.72 m) feeded by a twin lead. It is a compromise between size en performances.

That antenna was used by south-american stations (that's where the name comes from). Of course, operation was better in hupper HF bands (some says that 80 m operation was possible!!!).

If someone is interested I can scan the description I have (in a french ... but I can translate it)

Best regards

Jean-Marc
F4DRH
www.barbaxoops.com

"SWArmory" <swarmory@comcast.net> a crit dans le message de news:
x0Yrf.131652$%X.50503@fe07.news.easynews.com...
>I am looking for information on construction a small (physically) multi
>band
> HF beam/yagi type antenna. Any input is welcomed
>
> Thanks
>
> ED
> KA4LQI
>
>

5182. Re: Physically short multi band HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 12:15:19 UTC
From: F4DRH <F4DRH@wanadoo.fr>
Message-ID: <43b13057$0$19723$8fcfb975@news.wanadoo.fr>
Source record: 65979

```
.. more information here ... : www.barbaxoops.com
I have added an article on the Maria Maluca antenne.
```

"SWArmory" <swarmory@comcast.net> a €crit dans le message de news:
x0Yrf.131652$%X.50503@fe07.news.easynews.com...
>I am looking for information on construction a small (physically) multi
>band
> HF beam/yagi type antenna. Any input is welcomed
>
> Thanks
>
> ED
> KA4LQI
>
>

5183. Re: vertload.exe versus loadcoil.exe ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 12:31:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dorc7t$9oi$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 65980

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:43B066A6.908@comcast.net...
> Thank you very much.
>
> Can you speak to the calculated ATU value in VertLoad? Is it the
value to match
> to a 50 Ohm coax?
>
> One of the program set simulates a dipole with a base coil centered
between the
> elements. Is there a program to simulate a dipole with each of the
arms center
> loaded? I was trying to approximate this by vertload/loadcoil
simulations. They
> should be pretty close.
>
> Thanks - Dan kb0qil
>
==========

Yes, it's 50-ohm coax. Somewhere the program tells you that.

Two 1/4-wave resonant coil-loaded verticals, back to back, make one
1/2-wave resonant coil-loaded dipole.

But the dipole is more efficient. There is no ground loss resistance.

Reg.

5184. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 13:39:04 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b1433b_4@newsfeed.slurp.net>
Source record: 65981

"Hal Rosser" wrote:
> Right you are.
> Like I said - using a 5/8 wave vertical flattens out the "doughnut of
> propogation."
> And using two - back-to-back as a dipole will exhibit gain as well -
> over a dipole.

If you mean gain over a _ 1/2-wave _ dipole, then all of the single verticals > 90 degrees in the plots I posted earlier (with their "image" components) already have greater peak gain than that.

The peak, intrinsic gain of the 90 degree vertical and its image in my plots exactly matches the free-space peak gain of a self-resonant, 1/2-wave dipole (2.15 dBi).

The fact that all of the radiation from these verticals is confined to a 1/2 hemisphere adds 3 dB h-plane gain to all of the plots.

RF

5185. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 14:11:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dori2i$nu0$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 65982

Just to start an argument, why is it that EZNEC shows zero gain for a
vertical antenna in the horizontal plane? Whereas, all your diagrams
show maximum gain along the horizontal.

Reg.

5186. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 14:21:41 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <18j2r1htui6k0q8en625ouj51jft58v5o6@4ax.com>
Source record: 65983

You guys are testing my gray matter today...
The question: Is it possible to detect an FM subcarrier without
receiving the base carrier?

Perhaps another cup of coffee will help...

On Mon, 26 Dec 2005 18:05:38 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>65.75 is the magic frequency. It does appear the WFM mode can not be used on
>this frequency on the 706 MKIIG I have. In the FM position, while distorted
>it is copyable. The radio shows WFM mode, but it certainly isn't in the wide
>mode.
>
>Now I have to get in the circuitry and see why the WFM is not operable on
>this band.
>
>"Cecil Moore" <mycall@arrl.net> wrote in message
>news:kLLrf.45853$tV6.6004@newssvr27.news.prodigy.net...
>> Fred W4JLE wrote:
>> > You can if you tune to the audio offset.
>>
>> I have run the IC-706 all up and down the channel 3
>> 60-66 MHz frequencies while in College Station, TX
>> and cannot hear the audio anywhere.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
John Ferrell W8CCW

5187. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 14:21:59 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <0bj2r15i9iic4td11aejgpe330g8b07efe@4ax.com>
Source record: 65984

ORIGINAL MESSAGE:

On Mon, 26 Dec 2005 23:04:44 -0500, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>crimps can 'work loose'
>Same reason you have 5 lug nuts on your wheel instead of 2 or 3.

~~~~~~

Nonsense.

Properly crimped, the wire will break before the crimp "works loose".

Your tire has multiple lug nuts to spread the stress, not because a
smaller number will "work loose".

73, Bill W6WRT
~~~~~~

5188. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 15:37:45 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b15f16_3@newsfeed.slurp.net>
Source record: 65986

"Richard Fry"
>... confined to a 1/2 hemisphere adds 3 dB h-plane
> gain to all of the plots.

Sorry, delete the "1/2" in my statement above. My bad.

RF

5189. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 15:43:23 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b1605d_5@newsfeed.slurp.net>
Source record: 65987

"Reg Edwards" wrote
> Just to start an argument, why is it that EZNEC shows zero gain for a
> vertical antenna in the horizontal plane? Whereas, all your diagrams
> show maximum gain along the horizontal.

EZNEC shows the same patterns/gains as in the plots I posted,
when its models are set up correctly.

RF

5190. Interaction between dipole and beam

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 15:43:43 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <%4dsf.6899$L75.2525@fe12.lga>
Source record: 65985

The QST article about the HyGain 40/30 meter rotatable dipole has my interest. (It discussed using relays to change the dipole between 40 and 30 meters.)

My "small gun" station has a 3-el SteppIR on a 55-foor crankup/crankover tower. The mast extends about 5 feet above the top of the tower. If I add the rotatable dipole on the tower, should it be below or above the beam? Will the spacing (about 4 feet) be so close that I degrade the beam? Would a slightly longer mast be a major improvement? (I already have a dipole and half-sloper wires connected near the top of the tower, sloping to about 10' at the ends.)

With all the publications about ham antennas, it seems there is little reference material about antenna interactions. I realize that each situation is unique and it is a complex subject. Nevertheless, there seems to be very little published in this area.

Bill
W2WO

5191. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 15:47:47 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b16164$1_4@newsfeed.slurp.net>
Source record: 65988

"John Ferrell" wrote
> The question: Is it possible to detect an FM subcarrier without
> receiving the base carrier?

If you are still thinking of the broadcast television signal, the audio portion is not a subcarrier -- it is a discrete carrier whose modulation can be detected by any receiver capable of FM demodulation, and able to tune to its r-f center frequency.

RF

5192. 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 16:52:54 UTC
From: Charlie <charlie@play.com>
Message-ID: <11r2sc828n5ri78@news.supernews.com>
Source record: 65989

Currently the top loop is at only 20ft but I am making many contacts. Soon however they will be placed off a sidearm on the tower.
The top loop could then be as high as 80 ft.

I have read and read about this topic. Does anyone have any first hand knowledge of 6M height above ground comparisons especially for stacked loops? Thanks....

--

Charlie-AD5TH

5193. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 17:21:07 UTC
From: gsm@mendelson.com
Message-ID: <slrndr2tsl.3la.gsm@cable.mendelson.com>
Source record: 65990

Jim Higgins wrote:
> On Thu, 22 Dec 2005 14:41:03 +0000 (UTC), gsm@mendelson.com (Geoffrey
> S. Mendelson) wrote:

> And the flaw in your analysis is that they'll make up for a losing
> proposition with sheer volume.

Not at all. My logic is that they will keep pouring money into it until it makes a profit or they give up. Like UPS did with a portion of the 220 MHz band in the U.S. they lobbied for it, convinced everyone it would be in the public good to give it to them and they took it from the hams.

By the time they got it, it was too late, technology passed them by and they never used it. But it was never given back.

As for making a profit, there are lots of ways to recover cost. Maybe you will start seeing "ads by google" in the middle of web pages that did not have them, or a page request will give you an AOL page first before the page you requested.

Haven't you heard? Google just gave AOL $1bn for the privledge of being bought out by them. From now on a Google search will show AOL pages first.

> The thing is that BPL doesn't scale up all that well. The power line
> bandwidth is eaten up far faster than cable bandwidth and they can't
> get more by just adding some new transducers using a different
> wavelength and keep going.

Sort of. BPL uses carrier frequencies like every other digital communications method. If they run out of bandwidth in unocuppied carriers (which don't exist because every HF frequency is in use somewhere), they add more carriers.

If there was a burden upon them to make sure it is not in use, but all they have to do to check that is to listen with a cheap shortwave portable. It's not their fault there is no propigation at that moment or all the hams are asleep. They "checked" and you would have to fight them to get them off it.

> BPL will slow down quickly as subscribers
> are added and it won't be as fast as cable even with only one
> subscriber. The BPL industry has sold the power companies a bill of
> goods and the few who aren't simply abandoning it after initial trials
> need to be fought at a level that doesn't require FCC involvement.

So what? Once it's there it's there. Once given it can never be taken away.

> I'm sick and tired of seeing the ARRL humping the FCC's leg over BPL
> and being ignored. It's time to add another weapon to the arsenal. If

> not an approach involving regulating BPL to death thru the state PUCs,
> what do you suggest?

I really can't say. I'm not in the U.S. BPL died a quick death here for two reasons. One it sucked. Two, Israel Electric (a country wide monopoly) has been quietly running fiber alongside of their wires. Currently they use it for the monitoring and control functions that BPL is supposed to provide, but if the Ministry of Communications would let them, they would sell the bandwith for internet.

As for the ARRL if you are a member, complain. Their attitude is as long as you don't foul my bands, I don't care. Make them care. Deluge Sumner and Hare with emails. (one per member please, not a worthless mail bomb).

> I don't believe for a second that a call to not use Google will have
> any effect on BPL. It will take millions of people cooperating to
> make that approach effective and you'll never get that many to
> cooperate. Getting the attention of state PUCs takes far fewer people
> to accomplish.

Yes, but with 600,000 licensed hams in the U.S., if they and their families each emailed Google seperately and boycotted Google search engines, Google maps and "ads by google" they would get the message pretty quick.

The owner of one popular ham site wrote me that he could not give up his "ads by google" as the money paid for the site. I told him that he was making a mistake and I would also boycott his site and his advertisers.

It's up to you. If you don't do anything, there will be no HF bands in 5-10 years. Morse code tests or not, you simply won't be able to hear anyhting except buzz-buzz-buzz. :-(

Geoff.
--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (07)-7424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
The trouble with being a futurist is that when people get around to believing you, it's too late. We lost. Google 2,000,000:Hams 0.

5194. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 17:34:39 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <5ZydnYAVsMC25izeRVn-jw@adelphia.com>
Source record: 65991

Hal Rosser wrote:
>>So anyhow, why are crimps inferior to soldering?
>>
>>- 73 de Mike KB3EIA -
>
>
> crimps can 'work loose'
> Same reason you have 5 lug nuts on your wheel instead of 2 or 3.
>
>

Why are crimp connections used by some of the outfits who have a
critical interest in the catastrophic effects of a failure?

- 73 de Mike KB3EIA -

5195. Re: OT HX-50 schematic please.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 17:45:41 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <8eednR8-kb5f4CzeRVn-sw@comcast.com>
Source record: 65992

rec.radio.amateur.boatanchors ???

Paul P wrote:
> I am restoring a Hammarlund HX-50 for a fellow ham. The BAMA schematic
> is...quite bad. I am having trouble tracing and verifying the components of
> the unit. The rest of the manual is rather good in DjVu format. The owner
> has a reproduction manual on order and we hope it has a better schematic.
>
> In the mean time I would like to get started and order caps, resistors, etc.
> Could a kind soul please email me a copy of the schematic? Also my parts
> list resistor section starts with R165. There seems to be a missing BAMA
> page in between pages 43 and 44.
>
> Also, is there a better forum for such a request?
>
> Thanks to all,
> Paul
> www.ppinyot.com
>
> BTW - if you would like a stand alone (not plug in) DjVu application go to:
> http://www.tuberadio.it/utils.htm It is slick. I have combined many jpgs
> and gifs into a single file. The resolution is surprisingly good for the
> overall compressed file size.
>
>
>

5196. Re: No link attitude!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 17:50:34 UTC
From: n9zle <NoSpam@nospam.com>
Message-ID: <K9fsf.37196$BZ5.13333@newssvr13.news.prodigy.com>
Source record: 65993

Happy New year to all.

N9ZLE.COM forum a success!, this is where every one is going.

http://www.n9zle.com/forum

After one day up there was 8 registered users, and 38 posts. We have had
36 guests come by and take a look at the postings.
This forum is slightly different than most internet forums because of the
following.
We are holding to the Amateur Radio ideals and principles.
We have a section for anonymous posts.
You may post a link to your personal or commercial site.
All opinions are appreciated and accepted as long as they are not slanderous
or unclean.
There is a callsign lookup at the top of the forum on every page.
We are dedicated to helping our fellow HAM in what ever his/her needs are.
Please stop by and make a suggestion on any additional forums you believe
the BBS may need,

73s and 88s N9ZLE

"'Doc" <w5lz@cwis.net> wrote in message
news:fDLrf.4483$4o7.4087@newssvr24.news.prodigy.net...
> ...or maybe he's just tired of all the garbage being linked to his site
> (intentionally or not). Not a 'ham' attitude anymore, or just maybe not
> the same kind of ham you are? Get over it...
> - 'Doc

5197. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 18:04:47 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3nfsf.47706$6e1.36320@newssvr14.news.prodigy.com>
Source record: 65994

Reg Edwards wrote:

> Just to start an argument, why is it that EZNEC shows zero gain for a
> vertical antenna in the horizontal plane? Whereas, all your diagrams
> show maximum gain along the horizontal.

Sometimes the maximum gain is zero dBi?
--
73, Cecil http://www.qsl.net/w5dxp

5198. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 18:09:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9rfsf.47709$6e1.9495@newssvr14.news.prodigy.com>
Source record: 65995

Richard Fry wrote:
> If you are still thinking of the broadcast television signal, the audio
> portion is not a subcarrier -- it is a discrete carrier whose modulation
> can be detected by any receiver capable of FM demodulation, and able to
> tune to its r-f center frequency.

The confusing part, at least for me, was that the entire passband *can
be* downconverted and then demodulated assuming 4.5 MHz separation. That
doesn't imply a *necessary* condition for demodulation.
--
73, Cecil http://www.qsl.net/w5dxp

5199. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 18:23:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dos0qm$33n$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 65996

"Richard Fry" wrote
> "Reg Edwards" wrote
> > Just to start an argument, why is it that EZNEC shows zero gain
for a
> > vertical antenna in the horizontal plane? Whereas, all your
diagrams
> > show maximum gain along the horizontal.
> ------------
>
> EZNEC shows the same patterns/gains as in the plots I posted,
> when its models are set up correctly.
>
> RF
==========

The model for a simple vertical above ground is simple enough.

Perhaps YOUR way is incorrect if the pattern disagrees so strongly
with EZNEC.

Reg.

5200. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 18:46:45 UTC
From: Fred W4JLE <w4jle@w4jle.com>
Message-ID: <6383f$43b18c3e$471d2513$27459@ALLTEL.NET>
Source record: 65997

TV audio is not a sub-carrier. The audio is an independent transmitter from the aural transmitter.

They may have come up with some other way since I worked at WXEL in the fifties, but as a fifty's TV set still works today, I suspect the result is the same.

"John Ferrell" <johnferrell@sprintmail.com> wrote in message news:18j2r1htui6k0q8en625ouj51jft58v5o6@4ax.com...
> You guys are testing my gray matter today...
> The question: Is it possible to detect an FM subcarrier without
> receiving the base carrier?
>
> Perhaps another cup of coffee will help...
>
>

5201. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 19:00:57 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <Jbgsf.40842$q%.7558@newssvr12.news.prodigy.com>
Source record: 65998

"Bill Turner" <noway@nohow.com> wrote in message
news:0bj2r15i9iic4td11aejgpe330g8b07efe@4ax.com...
> Nonsense.
>
> Properly crimped, the wire will break before the crimp "works loose".
>
> Your tire has multiple lug nuts to spread the stress, not because a
> smaller number will "work loose".
>
> 73, Bill W6WRT

Guess that's right, let's see now. Formula ! car wheels just have one big lug nut, don't they?

Harold
KD5SAK

5202. Re: vertload.exe versus loadcoil.exe ??

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 19:23:11 UTC
From: sailtamarack@yahoo.ca
Message-ID: <1135711391.639439.76220@z14g2000cwz.googlegroups.com>
Source record: 65999

Dan,

If you want to design a shortened dipole with loading coils you should download the freeware package HamCalc. It is a large collection of BASIC programs which run in a DOS window. The package can be downloaded from http://www.cq-amateur-radio.com/HamCalcem.html

There are several programs that deal with shortened, centre and off-centre dipoles. Loading coil design using standard forms such as PVC pipe is included.

Regards - Roger

5203. Re: Crimp, Clamp or Solder?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 20:11:06 UTC
From: W8LNA <W8LNA@arrl.net>
Message-ID: <udhsf.2134$OU3.370@news01.roc.ny>
Source record: 66000

kd5sak wrote:
> "Bill Turner" <noway@nohow.com> wrote in message
> news:0bj2r15i9iic4td11aejgpe330g8b07efe@4ax.com...
>
>>Nonsense.
>>
>>Properly crimped, the wire will break before the crimp "works loose".
>>
>>Your tire has multiple lug nuts to spread the stress, not because a
>>smaller number will "work loose".
>>
>>73, Bill W6WRT
>
>
> Guess that's right, let's see now. Formula ! car wheels just have one big
> lug nut, don't they?

Yes, and six drive pegs
http://www.f1-country.com/f1-engineer/tyres/wheelrim.html

so the nut only holds the wheel to the hub and doesn't take the stresses
of propelling the car.

W8LNA

5204. Re: Physically short multi band HF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 20:14:51 UTC
From: fmmck@aol.com
Message-ID: <fmmck-2712051514510001@acaaa240.ipt.aol.com>
Source record: 66001

In article <x0Yrf.131652$%X.50503@fe07.news.easynews.com>, "SWArmory" <swarmory@comcast.net> wrote:

> I am looking for information on construction a small (physically) multi band
> HF beam/yagi type antenna. Any input is welcomed

ED-

Back in the 80s a popular small antenna was the "Mini Beam". A friend had one and was happy with the way it worked. However, it was quite fragile, and the small rods in the capacity hats would frequently break.

I did a Google search for minibeam and found several different products currently for sale. I also came across a do-it-yourself mini beam at http://www.telusplanet.net/public/ve6vk/minibeam/minibeam.html. It is a single-band antenna using mobile whips, but may give you some ideas.

73, Fred, K4DII

5205. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 20:53:56 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b1a927_1@newsfeed.slurp.net>
Source record: 66002

"Reg Edwards" wrote
> "Richard Fry" wrote
>> "Reg Edwards" wrote
>> > Just to start an argument, why is it that EZNEC shows zero gain
> for a vertical antenna in the horizontal plane? Whereas, all your
> diagrams show maximum gain along the horizontal.
>> ___________
>>
>> EZNEC shows the same patterns/gains as in the plots I posted,
>> when its models are set up correctly.
>>
>> RF
> ======================================
>
> The model for a simple vertical above ground is simple enough.
>
> Perhaps YOUR way is incorrect if the pattern disagrees so strongly
> with EZNEC.
> ----
> Reg.

Reg,

My models agree with theory and measured results, as have been developed and well-proven for 60+ years in the broadcast industry.

If you doubt my plots, why not send them to Roy Lewallen ask for his comments? You might also ask him to tell you how to model these configurations properly using EZNEC.

I'd explain it, but probably that wouldn't be acceptable to you (plus you didn't ask me).

RF

5206. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 21:12:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r3bhdh1gfja72@corp.supernews.com>
Source record: 66003

Reg Edwards wrote:
> Just to start an argument,

Things are even duller than usual in Rowley Regis, I see.

why is it that EZNEC shows zero gain for a
> vertical antenna in the horizontal plane? Whereas, all your diagrams
> show maximum gain along the horizontal.

C'mon Reg, it's only been three months since you last asked this and got it answered(1). The time before that was four years earlier(2), and before that multiple times going back at least to 1998(3). At the rate you're going, you'll be asking it weekly before long. Getting tired of promoting "TLI"s, grumping at "Gurus" (while carefully excluding yourself, of course), grousing about Americans, and asking "Who's Kraus"? C'mon, be original. Surely you can think of a new topic to keep you awake on those long, boring evenings. I've got an idea -- maybe you can use your knowledge to actually help some of the folks who ask serious questions on this newsgroup.

For anyone who wants an answer to Reg's perennial question, use groups.google.com to look up the following threads on this newsgroup, where Reg has asked the same question and where it's been answered:

(1) "best HF antenna system next to a trailer?", Sept. 2005
(2) "40M Delta Loop Advice Needed:", May 2001
(3) "Raised V's burried ground systems." [sic], Feb. 2000
"Ground Radial system comparisons", April 1999
"Is there", Aug. 1998
"Better for DXing: Beam or vertical?", Aug. 1998

Roy Lewallen, W7EL

5207. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 21:22:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r3c4d6j8il978@corp.supernews.com>
Source record: 66004

Richard Fry wrote:
>
> If you are still thinking of the broadcast television signal, the audio
> portion is not a subcarrier -- it is a discrete carrier whose modulation
> can be detected by any receiver capable of FM demodulation, and able to
> tune to its r-f center frequency.
>

You've described how it's commonly generated. But is the end result any different than if it were generated instead by modulation of the main carrier by an ideal modulation system not having the practical problem of intermodulation distortion? That is, isn't the end result identical to a subcarrier?

When I worked in radio broadcasting in the '60s, we generated an FM (SCA) subcarrier in addition to the stereo subcarrier by modulating the transmitter. Some stations had multiple SCA subcarriers.

Roy Lewallen, W7EL

5208. Re: OT HX-50 schematic please.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 22:23:52 UTC
From: Paul P <paulREMOVE@REMOVEppinyotREMOVE.com>
Message-ID: <Y9jsf.1337$yx.439@trndny01>
Source record: 66005

"Amos Keag" <A.K01@comcast.net> wrote in message
news:8eednR8-kb5f4CzeRVn-sw@comcast.com...
> rec.radio.amateur.boatanchors ???

Cool thanks,
Paul

5209. Re: More connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 22:43:30 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <uag3r1d51da14vhd2b92a326d1l7t3b395@4ax.com>
Source record: 66006

On Tue, 27 Dec 2005 02:39:27 GMT, "Dale Parfitt"
<par@parelectronics.com> wrote:

>Perhaps not exclusively UHF- but what do you perceive the problem of
>SO-239/PL-259 at UHF- say 70cM? If it is loss, how much is the loss of a
>mated pair?

Though people often concern themselves about whether UHF connectors
introduce significant impedance mismatch / loss, to my mind the much
greater problem is their reliability.

The 'outer' connection depends on being properly seated and coupling
ring tightened very tight for reliable connection. The connectors work
loose readily and are then unreliable at any frequency.

UHF connectors are an example of a poor design that will probably
never be displaced from the amateur market.

Owen
--

5210. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 23:04:50 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b1c7d3$1_4@newsfeed.slurp.net>
Source record: 66007

"Roy Lewallen" wrote
> Richard Fry wrote:
> You've described how it's commonly generated. But is the end result any
> different than if it were generated instead by modulation of the main
> carrier by an ideal modulation system not having the practical problem of
> intermodulation distortion? That is, isn't the end result identical to a
> subcarrier?

No, in that an aural subcarrier would disappear without a visual carrier to convey it. TV aural via a standalone r-f transmission system would not.

RF

5211. Re: More BPL rollout. sigh...

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 23:26:59 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <11r3jeeg3fqhsa0@corp.supernews.com>
Source record: 66008

Jim Higgins wrote:

> On Thu, 22 Dec 2005 14:41:03 +0000 (UTC), gsm@mendelson.com (Geoffrey
> S. Mendelson) wrote:
>
>
>>Jim Higgins wrote:
>>
>>
>>>The result? BPL economics absolutely cannot support the
>>>promises made for it. If they have to fulfill the promises it's dead
>>>before it starts.
>>
>>The flaw in your logic is that Google invested $100,000,000 on Current
>>Communications. If the trial flops economicaly, they can just keep
>>pouring money into it until they corner the market.
>>
>>The way I figure it is they just raised $4b in a stock offering. If the
>>$3b left over after buying part of AOL isn't enough, they will just
>>sell more stock.
>
>
>
> And the flaw in your analysis is that they'll make up for a losing
> proposition with sheer volume.
>
> The thing is that BPL doesn't scale up all that well. The power line
> bandwidth is eaten up far faster than cable bandwidth and they can't
> get more by just adding some new transducers using a different
> wavelength and keep going. BPL will slow down quickly as subscribers
> are added and it won't be as fast as cable even with only one
> subscriber. The BPL industry has sold the power companies a bill of
> goods and the few who aren't simply abandoning it after initial trials
> need to be fought at a level that doesn't require FCC involvement.
>
> I'm sick and tired of seeing the ARRL humping the FCC's leg over BPL
> and being ignored. It's time to add another weapon to the arsenal. If
> not an approach involving regulating BPL to death thru the state PUCs,
> what do you suggest?
>
>
>
>>Every time you click on an "ads by google", you are supporting BPL.
>>Every time you vist a web site with "ads by google" you are supporting BPL.

>>If you bought Google stock, or invested in a mutual fund that did,
>>you are supporting BPL.
>
>
>
> I don't believe for a second that a call to not use Google will have
> any effect on BPL. It will take millions of people cooperating to
> make that approach effective and you'll never get that many to
> cooperate. Getting the attention of state PUCs takes far fewer people
> to accomplish.
>
Unless you have one like Indiana's. They have stated that if the FCC is
happy there is no reason for them to get involved.

Dave N

5212. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 23:28:16 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <mej3r15eaki71d906bbuojvmm3crav3cfr@4ax.com>
Source record: 66009

I like your answer best, probably because I understand how it works!

On Tue, 27 Dec 2005 13:46:45 -0500, "Fred W4JLE" <w4jle@w4jle.com>
wrote:

>TV audio is not a sub-carrier. The audio is an independent transmitter from
>the aural transmitter.
>
>They may have come up with some other way since I worked at WXEL in the
>fifties, but as a fifty's TV set still works today, I suspect the result is
>the same.
>
>"John Ferrell" <johnferrell@sprintmail.com> wrote in message
>news:18j2r1htui6k0q8en625ouj51jft58v5o6@4ax.com...
>> You guys are testing my gray matter today...
>> The question: Is it possible to detect an FM subcarrier without
>> receiving the base carrier?
>>
>> Perhaps another cup of coffee will help...
>>
>>
>
John Ferrell W8CCW

5213. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-27 23:37:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r3k1eg60doc4d@corp.supernews.com>
Source record: 66010

Richard Fry wrote:
> "Roy Lewallen" wrote
>
>> Richard Fry wrote:
>> You've described how it's commonly generated. But is the end result
>> any different than if it were generated instead by modulation of the
>> main carrier by an ideal modulation system not having the practical
>> problem of intermodulation distortion? That is, isn't the end result
>> identical to a subcarrier?
>
> ------------
>
> No, in that an aural subcarrier would disappear without a visual carrier
> to convey it. TV aural via a standalone r-f transmission system would not.

Sorry, I obviously failed to communicate my question. Let me try again.

With no information other than looking at the composite signal including video and audio, would you be able to tell if it was generated by two separate transmitters or by modulation of a single transmitter by the video and an audio subcarrier? That is, if you could do the modulation without generation of intermodulation products.

Roy Lewallen, W7EL

5214. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 00:50:59 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <6bo3r1d3cpu9a81illbs9np90n4sldib3j@4ax.com>
Source record: 66011

It is not a sub carrier in the rf spectrum, meaning it can be fully
seen with or without any other carrier (video), but when detected in
the TV receiver it becomes a sub carrier of 4.5 mhz in the TV's IF.
The audio carrier is mixed with the video carrier to produce the 4.5
mhz.
Without the video carrier the TV receiver will not see the 4.5 mhz.

As others have said the sound carrier is usually generated by a
separate transmitter at the sound carrier frequency. But it could also
be generated as a sub carrier of the main video carrier with the same
results. It would still be visible in the RF spectrum just the same as
it is when generated by a separate transmitter. The main carrier would
also have to be present at the same time of course.

However if the TV video signal was an FM modulated signal rather than
AM then the sound sub carrier would not be visible without the main
video carrier if it was generated as a sub carrier.

The same happens with an FM broadcast SCA sub carrier or the stereo
sub carrier on the main signal. The main signal must first be
demodulated in order to demodulate any sub carrier.

73
Gary K4FMX

On Tue, 27 Dec 2005 23:28:16 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>I like your answer best, probably because I understand how it works!
>
>On Tue, 27 Dec 2005 13:46:45 -0500, "Fred W4JLE" <w4jle@w4jle.com>
>wrote:
>
>>TV audio is not a sub-carrier. The audio is an independent transmitter from
>>the aural transmitter.
>>
>>They may have come up with some other way since I worked at WXEL in the
>>fifties, but as a fifty's TV set still works today, I suspect the result is
>>the same.
>>
>>"John Ferrell" <johnferrell@sprintmail.com> wrote in message
>>news:18j2r1htui6k0q8en625ouj51jft58v5o6@4ax.com...
>>> You guys are testing my gray matter today...
>>> The question: Is it possible to detect an FM subcarrier without
>>> receiving the base carrier?
>>>

>>> Perhaps another cup of coffee will help...
>>>
>>>
>>
>John Ferrell W8CCW

5215. Searching for circuit for active antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 01:43:56 UTC
From: Reinhard Zwirner <reinhard_zwirner@web.de>
Message-ID: <41e8qhF1dpu51U1@individual.net>
Source record: 66012

Dear experts

I'm searching for a simple but good-working and reliable circuit
for a 10 kHz - 30 MHz active antenna. It would be very nice if
someone showed me a link to such a circuit.

TIA and a happy new year

Reinhard

5216. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 02:06:59 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b1f288_1@newsfeed.slurp.net>
Source record: 66013

"Roy Lewallen" wrote:
> With no information other than looking at the composite signal including
> video and audio, would you be able to tell if it was generated by two
> separate transmitters or by modulation of a single transmitter by the
> video and an audio subcarrier? That is, if you could do the modulation
> without generation of intermodulation products.

Given all that, then no. But that isn't the reality.

RF

5217. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 02:53:54 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b1fd83_3@newsfeed.slurp.net>
Source record: 66014

"Gary Schafer" wrote
> However if the TV video signal was an FM modulated signal rather than
> AM then the sound sub carrier would not be visible without the main
> video carrier if it was generated as a sub carrier.
> The same happens with an FM broadcast SCA sub carrier or the stereo
> sub carrier on the main signal. The main signal must first be
> demodulated in order to demodulate any sub carrier.

The r-f spectra of TV aural signals and FM SCAs are standalone entities. Each may be fully demodulated by a suitable FM receiver capable of tuning to that r-f spectrum. No "main" carrier is needed. Given, this isn't the conventional practice -- however it would be possible to do.

Likewise, the L-R audio information of an FM stereo transmission is a standalone entity, and given a suitable r-f receiver and detector, it can be fully demodulated back to L-R without needing the main carrier. Not conventional or cost-effective, but possible. Of course, the L+R waveform conveyed by the main carrier is necessary to matrix with L-R to produce the L&R channels needed for stereo reproduction by the receiver system.

RF

5218. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 03:14:20 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <2j04r11j1lm76ngcpo5i3tpq3lo1gst2pi@4ax.com>
Source record: 66015

On Tue, 27 Dec 2005 10:52:54 -0600, "Charlie" <charlie@play.com>
wrote:

>Currently the top loop is at only 20ft but I am making many contacts. Soon
>however they will be placed off a sidearm on the tower.
> The top loop could then be as high as 80 ft.
>
>I have read and read about this topic. Does anyone have any first hand
>knowledge of 6M height above ground comparisons especially for stacked
>loops? Thanks....

You really want the lower of the two higher than 20ft.

It's really simple, higher is better. We are talking VHF and if there
is nothing going on propagation wise then height above average terrain
determines what your radio horizon will be. For that higher wins.

Simply put, 80ft will be much better than 20 and only slightly better
than 40.

Allison

5219. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 03:31:29 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <bj14r193j2vigo77et4ohq6ki077v339q6@4ax.com>
Source record: 66017

ORIGINAL MESSAGE:

On Tue, 27 Dec 2005 10:52:54 -0600, "Charlie" <charlie@play.com>
wrote:

>Currently the top loop is at only 20ft but I am making many contacts. Soon
>however they will be placed off a sidearm on the tower.
> The top loop could then be as high as 80 ft.
>
>I have read and read about this topic. Does anyone have any first hand
>knowledge of 6M height above ground comparisons especially for stacked
>loops? Thanks....

~~~~~~

I'm not that sure about loops, but for yagis working DX, the optimum
height seems to be about 35 feet. Higher is better for ground wave,
but for DX, 35 is best, believe it or not. This has been proven with
crank up towers many times. It may well be the same for loops.

73, Bill W6WRT
~~~~~~

5220. Re: Searching for circuit for active antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 03:39:55 UTC
From: LarryLurker <Larry@Lurker.net>
Message-ID: <3g14r1lbde70aqcvp1cq4qa8qo4of2q7vf@4ax.com>
Source record: 66016

try "active antenna" in Google.

On Wed, 28 Dec 2005 02:43:56 +0100, Reinhard Zwirner
<reinhard_zwirner@web.de> wrote:

>Dear experts
>
>I'm searching for a simple but good-working and reliable circuit
>for a 10 kHz - 30 MHz active antenna. It would be very nice if
>someone showed me a link to such a circuit.
>
>TIA and a happy new year
>
>Reinhard

5221. coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 04:05:37 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <mrmdnRrhheeJki_enZ2dnUVZ_tadnZ2d@comcast.com>
Source record: 66018

The program coaxpair does not seem to compute the reflection angle. Is this an error? Is the cause known?

Thanks - Dan

5222. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 05:12:54 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <2h74r1l7553gsr3o2j1rapa5rb9ugvci82@4ax.com>
Source record: 66019

On Tue, 27 Dec 2005 20:05:37 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>The program coaxpair does not seem to compute the reflection angle. Is this an
>error? Is the cause known?

Works allright for me (WAFM). (coaxpair.exe dated 5/10/98)

Reflection seem to be at the load end of the line, is that your issue?

>
>Thanks - Dan
--

5223. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 05:36:53 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <QpadndP6VtXluS_eRVn-vA@comcast.com>
Source record: 66020

Yes, that was the issue, I assumed it was at the source. Thanks - Dan

Owen Duffy wrote:
> On Tue, 27 Dec 2005 20:05:37 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>>The program coaxpair does not seem to compute the reflection angle. Is this an
>>error? Is the cause known?
>
>
> Works allright for me (WAFM). (coaxpair.exe dated 5/10/98)
>
> Reflection seem to be at the load end of the line, is that your issue?
>
>
>
>>Thanks - Dan
>
> --

5224. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 06:06:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dota10hmp1@nwrdmz01.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66021

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:mrmdnRrhheeJki_enZ2dnUVZ_tadnZ2d@comcast.com...
> The program coaxpair does not seem to compute the reflection angle.
Is this an
> error? Is the cause known?
>
> Thanks - Dan
==========

Dan, I don't know what you mean by "reflection angle".

The program DOES compute the angle of the reflection coefficient. The
answer is in the bottom left-hand corner of the screen.

When the terminating impedance, Rt+jXt, equals line impedance, Ro+jXo,
the magnitude of the reflection coefficient is zero.

But zero magnitude cannot have an angle. Its a mathematical
impossibility.

But when RC = zero the program is obliged to print something for the
angle, so it prints an indeterminate angle which can lie randomly
anywhere between +180 and -180 degrees.

Actually, you can't set the RC exactly to zero because the program
only works to 14 decimal places.

The randomly generated angle can't be used for anything because when
the RC is zero there's nowhere in an equation to insert it. Just
forget about it. It's meaningless.

And even for a very small magnitude of RC the value of the angle
doesn't matter very much. It has little effect on what is being
calculated.

Reg.

5225. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 06:36:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dotbp0$l3$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 66022

Roy, you'll just have to accept the fact that I'm peculiar. But no more peculiar than other frequenters of this newsgroup. I don't think I do much damage.

Reg.

5226. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 07:33:45 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <3brsf.52570$aS5.51008@bignews4.bellsouth.net>
Source record: 66023

"Charlie" <charlie@play.com> wrote in message
news:11r2sc828n5ri78@news.supernews.com...
> Currently the top loop is at only 20ft but I am making many contacts.
Soon
> however they will be placed off a sidearm on the tower.
> The top loop could then be as high as 80 ft.
>
> I have read and read about this topic. Does anyone have any first hand
> knowledge of 6M height above ground comparisons especially for stacked
> loops? Thanks....
>

6m is line-of-sight, so higher is better than lower.
If you have the opportunity to put it 80 ft high - do it.
why are you stacking loops? why not make a quad ?

5227. APRSPoint holiday special

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 08:42:23 UTC
From: "hxc98@yahoo.com" <hxc98@yahoo.com>
Message-ID: <1135759343.871730.257060@g47g2000cwa.googlegroups.com>
Source record: 66024

APRSPoint is a complete APRS package with integrated street-level maps.

We are offerring a holiday special. Now you can APRSPoint license
plus MapPoint 2004 for $69.95 instead of $92.95. Please visit
http://www.aprspoint.com/ for details. Thanks.

5228. Re: OT HX-50 schematic please.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 10:07:02 UTC
From: Paul P <paulREMOVE@REMOVEppinyotREMOVE.com>
Message-ID: <attsf.1733$yx.253@trndny01>
Source record: 66025

Gentlemen,
I found a schematic. Thanks,
Paul.

"Paul P" <paulREMOVE@REMOVEppinyotREMOVE.com> wrote in message
news:G76sf.1128$yx.703@trndny01...
>I am restoring a Hammarlund HX-50 for a fellow ham. The BAMA schematic
> is...quite bad. I am having trouble tracing and verifying the components
> of
> the unit. The rest of the manual is rather good in DjVu format. The
> owner
> has a reproduction manual on order and we hope it has a better schematic.
>
> In the mean time I would like to get started and order caps, resistors,
> etc.
> Could a kind soul please email me a copy of the schematic? Also my parts
> list resistor section starts with R165. There seems to be a missing BAMA
> page in between pages 43 and 44.
>
> Also, is there a better forum for such a request?
>
> Thanks to all,
> Paul
> www.ppinyot.com
>
> BTW - if you would like a stand alone (not plug in) DjVu application go
> to:
> http://www.tuberadio.it/utils.htm It is slick. I have combined many jpgs
> and gifs into a single file. The resolution is surprisingly good for the
> overall compressed file size.
>
>
>

5229. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 10:38:34 UTC
From: Charlie <charlie@play.com>
Message-ID: <11r4qqf8pc53e7e@news.supernews.com>
Source record: 65926

Thank you Allison.....

--

Charlie

<Allison-nospam@nouce.bellatlantic.net> wrote in message
news:2j04r11j1lm76ngcpo5i3tpq3lo1gst2pi@4ax.com...
> On Tue, 27 Dec 2005 10:52:54 -0600, "Charlie" <charlie@play.com>
> wrote:
>
>>Currently the top loop is at only 20ft but I am making many contacts.
>>Soon
>>however they will be placed off a sidearm on the tower.
>> The top loop could then be as high as 80 ft.
>>
>>I have read and read about this topic. Does anyone have any first hand
>>knowledge of 6M height above ground comparisons especially for stacked
>>loops? Thanks....
>
> You really want the lower of the two higher than 20ft.
>
> It's really simple, higher is better. We are talking VHF and if there
> is nothing going on propagation wise then height above average terrain
> determines what your radio horizon will be. For that higher wins.
>
> Simply put, 80ft will be much better than 20 and only slightly better
> than 40.
>
> Allison

5230. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 10:40:00 UTC
From: Charlie <charlie@play.com>
Message-ID: <11r4qt5p297c9c2@news.supernews.com>
Source record: 65927

Hi Bill...this is also what I have found to be the crux of my dilemma. If I should strive to optimize height for DX or terrestrial contacts.
I have need for both so I am going to need to compromise a bit. TY again for your input.

--

Charlie

"Bill Turner" <noway@nohow.com> wrote in message
news:bj14r193j2vigo77et4ohq6ki077v339q6@4ax.com...
>
> ORIGINAL MESSAGE:
>
> On Tue, 27 Dec 2005 10:52:54 -0600, "Charlie" <charlie@play.com>
> wrote:
>
>>Currently the top loop is at only 20ft but I am making many contacts.
>>Soon
>>however they will be placed off a sidearm on the tower.
>> The top loop could then be as high as 80 ft.
>>
>>I have read and read about this topic. Does anyone have any first hand
>>knowledge of 6M height above ground comparisons especially for stacked
>>loops? Thanks....
>
> ~~~~~~
>
> I'm not that sure about loops, but for yagis working DX, the optimum
> height seems to be about 35 feet. Higher is better for ground wave,
> but for DX, 35 is best, believe it or not. This has been proven with
> crank up towers many times. It may well be the same for loops.
>
> 73, Bill W6WRT

5231. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 11:56:58 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835 43B27D8A49@zetnet.co.uk>
Source record: 65930

> Currently the top loop is at only 20ft but I am making many contacts. Soon
> however they will be placed off a sidearm on the tower.
> The top loop could then be as high as 80 ft.

> I have read and read about this topic. Does anyone have any first hand
> knowledge of 6M height above ground comparisons especially for stacked
> loops? Thanks....

Charlie, Try asking these guys. WWW.uksmg.org 73's De Dave M1BTI

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

5232. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 12:22:26 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <ng05r1dhin6voisg7c7dm51eviii2pgofe@4ax.com>
Source record: 65928

On Wed, 28 Dec 2005 02:33:45 -0500, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>
>"Charlie" <charlie@play.com> wrote in message
>news:11r2sc828n5ri78@news.supernews.com...
>> Currently the top loop is at only 20ft but I am making many contacts.
>Soon
>> however they will be placed off a sidearm on the tower.
>> The top loop could then be as high as 80 ft.
>>
>> I have read and read about this topic. Does anyone have any first hand
>> knowledge of 6M height above ground comparisons especially for stacked
>> loops? Thanks....
>>
>
>6m is line-of-sight, so higher is better than lower.
>If you have the opportunity to put it 80 ft high - do it.
>why are you stacking loops? why not make a quad ?
>
>
I can answer for him. Stacked loops offer some amount of gain
but are omnidirectional. A 2 element quad, offers slightly more gain
but is directional. If both are on the SIDE of a tower, one has to
be turned and is expensive to do that.

Actually a single loop has better high angle when mounted high up
than a stacked pair.

After trying a lot of 6m antennas. Quads with wires thinner than 1/4"
are only ok but doo poorly with ice and high wind. I'd do a yagi of
4 or more elements for gain and F/B and a loop up high for local
nets(omni).

Allison

5233. Re: FA: Book: SPREAD SPECTRUM SYSTEMS: An Advanced Electronics/Math Book

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 12:42:04 UTC
From: "John E. Golden" <johnisgolden@NOSPAMsbcglobal.net>
Message-ID: <Xns973A4E5757398johnisgoldenNOSPAMsb@207.115.17.102>
Source record: 65929
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Auctions should be listed in [alt.marketplace.online.ebay]...NOT here!

5234. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 13:18:50 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373835 43B290BA48@zetnet.co.uk>
Source record: 65931

> The accident investigation crews here have a device that meters
> distances. I assume that in the UK, it is calibrated in metres.
> Do you guys call that device a "metre meter"?

Cecil, We'd call it a
1) Metre measuring device, indicating
a measurement solely in Metre Units
2) distance measurement meter. In
English terms your pronunciation of Metre Meter would
also be grammarmatically incorrect and not good
English, in speaking terms.

Much the same as 1) Tonne, a metric measurement of weight. IE,
a mass equal to 2,205 Lbs.
2) Ton, a unit of weight. IE,
an English Imperial unit equating to 2000Lbs. Also
3) Ton, a unit of weight. IE,
A weight of 2,240 Lbs, equal to 1.016 metric tons, known
as a long Ton.
And you though you were confused Eh!!!!! 73's De Dave LOVL

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

5235. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 14:25:18 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <frja83-vdj.ln1@p400bob.personal.cox.net>
Source record: 65932

Hi Charlie

I have read some of the responses you have received already. As you asked for first hand experience I hadnt commented initially.

I wonder if you have tried modelling your configuration with height variables and applying the resultant radiation pattern to propagation modes? I'd suggest ground conditions for your area also need to be entered. I seem to remember from my dim dark past that ground reflections (and hence undesirable skyward radiation - often not usually an issue on VHF) are more of a problem when using a lower gain antenna. Maybe the loop in that respect might be worse than a quad/yagi?

You'd be able to see the dB per foot height changes that occur and make a judgement from that.

I have never used horiz loops on 6m.

Cheers Bob W5/VK2YQA East Texas

Charlie wrote:
> I have read and read about this topic. Does anyone have any first hand
> knowledge of 6M height above ground comparisons especially for stacked
> loops? Thanks....

5236. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 16:00:51 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43B2B6B3.8040909@comcast.net>
Source record: 65933

Reg,

I am dealing only with the open circuit case and trying to determine the reflection angle of the reflected signal at the source. In those cases the angle was always zero.

However the angle calculated is the reflected angle at the termination. In the open circuit case that is zero.

After making an error here between the effects of odd versus even quarter waves at the source I am getting closer to being able to measure the impedance of a loaded vertical 'in the shack'. At the moment this is limited to a single frequency 'close' to a frequency of interest. But even that is a triumph.

Thanks for the reply. Dan

Reg Edwards wrote:
> "dansawyeror" <dansawyeror@comcast.net> wrote in message
> news:mrmdnRrhheeJki_enZ2dnUVZ_tadnZ2d@comcast.com...
>
>>The program coaxpair does not seem to compute the reflection angle.
>
> Is this an
>
>>error? Is the cause known?
>>
>>Thanks - Dan
>
> ====================================
>
> Dan, I don't know what you mean by "reflection angle".
>
> The program DOES compute the angle of the reflection coefficient. The
> answer is in the bottom left-hand corner of the screen.
>
> When the terminating impedance, Rt+jXt, equals line impedance, Ro+jXo,
> the magnitude of the reflection coefficient is zero.
>
> But zero magnitude cannot have an angle. Its a mathematical
> impossibility.
>
> But when RC = zero the program is obliged to print something for the
> angle, so it prints an indeterminate angle which can lie randomly
> anywhere between +180 and -180 degrees.
>
> Actually, you can't set the RC exactly to zero because the program

> only works to 14 decimal places.
>
> The randomly generated angle can't be used for anything because when
> the RC is zero there's nowhere in an equation to insert it. Just
> forget about it. It's meaningless.
>
> And even for a very small magnitude of RC the value of the angle
> doesn't matter very much. It has little effect on what is being
> calculated.
> ----
> Reg.
>
>

5237. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 16:04:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3lysf.47963$tV6.36131@newssvr27.news.prodigy.net>
Source record: 65934

Reg Edwards wrote:
> Roy, you'll just have to accept the fact that I'm peculiar. But no
> more peculiar than other frequenters of this newsgroup.

How's this for peculiar? :-)

"The movement of energy within the line is complex; in the
abbreviated analysis I've had time to do so far, it sloshes
back and forth in regions within the line."
--
73, Cecil http://www.qsl.net/w5dxp

5238. Re: Which Brand "Best" For Lightning Arrestor ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 16:17:20 UTC
From: Mike <km6ab@REMOVETHIS.pacbell.net>
Message-ID: <kUysf.47952$6e1.45345@newssvr14.news.prodigy.com>
Source record: 65935

Polyphasor stands out as a company that tests and evaluates their products with EMP lab testing and actual lightning strikes, not sure about the other brands. Iï¿½ve visited many commercial mountain top repeater sites and Polyphasor is the only brand that seems to be used. The only complaint I've heard is the VSWR may not be as advertised in the VHF and higher range. Unless you need to power something via the coax, use a DC blocked unit. I donï¿½t think a DC pass arrestor can roll off energy in the HF range to adequately protect your radio. The arrestor needs to be placed at the cable entry point to your house/shack and well grounded to do its job. You might want to read Polyphasorï¿½s book that will help you design a system that will have a chance of surviving a lightning strike. A poorly design system is probably worse than no arrestor due to the false sense of security it may give you.
I have absolutely no connection with Polyphasor, bla, bla bla.
Mike

Robert11 wrote:
> Hello:
>
> Anyone have any strong opinions regarding PolyPhaser, ICE, and Alpha Delta
> Lightning Arresters ?
>
> Would be for a receive only antenna.
>
> Do I want the dc blocked variety, or doesn't it matter for receive only (0.5
> to 30 MHz) ?
>
> Thanks,
> Bob
>
>

5239. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 16:18:25 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <lVysf.47965$tV6.10664@newssvr27.news.prodigy.net>
Source record: 65936

dansawyeror wrote:
> I am dealing only with the open circuit case and trying to determine the
> reflection angle of the reflected signal at the source. In those cases
> the angle was always zero.

If you are trying to make real-world measurements, a true
short-circuit (~zero) is actually easier to implement than
a true open-circuit (~infinity)
--
73, Cecil http://www.qsl.net/w5dxp

5240. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 17:00:28 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndr5h5c.fp4.bit-bucket@shell.config.com>
Source record: 65937

On Wed, 28 Dec 2005 02:33:45 -0500, Hal Rosser wrote:
>
> "Charlie" <charlie@play.com> wrote in message
> news:11r2sc828n5ri78@news.supernews.com...
>> Currently the top loop is at only 20ft but I am making many contacts.
> Soon
>> however they will be placed off a sidearm on the tower.
>> The top loop could then be as high as 80 ft.
>>
>> I have read and read about this topic. Does anyone have any first hand
>> knowledge of 6M height above ground comparisons especially for stacked
>> loops? Thanks....
>>
>
> 6m is line-of-sight, so higher is better than lower.

IT IS??? !!! Then, I guess my confirmed QSO's with Japan, Australia,
Greenland, Chile, and others -- plus all states except R.I. (sigh...)
from western Colorado (while running just 9.5 watts) simply never
happened.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

5241. Re: Thanks for antenna help.

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 17:38:35 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <3130303038373833543B2CD9B13@zetnet.co.uk>
Source record: 65939

As I replied to Cecils Question on Metres and Meter, 2,000Lbs is an
American equivelant of a Ton, 2,240Lbs is the equivelant of an English
Ton. Who said the French should be given credit? for what? Confusing me
for a start.
We spent hundreds of years fighting to keep them out, then built a
tunnel to let them through. LOL Dave

--
Amateur Radio Call Sign M1BTI, Located in Manchester England.
Locator square IO83TK
Chairman Of Trafford Radio Club. Club Call Signs G0TRG & M1BBP
Located at Umist, University Of Manchester Institute For Science And
Technology
Share What You Know, Learn What You Dont.

5242. SWL Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 17:42:45 UTC
From: Ben Sinclair <bensinc@gmail.com>
Message-ID: <1135791765.713949.172040@o13g2000cwo.googlegroups.com>
Source record: 65938

I have a new Icom R-75 and have some newbie antenna questions. I have a random length wire in the length my attic, and the receiver is located in the basement.

The R-75 has a two antenna inputs. One coax, and one for a wire with a ground input. I attached my random wire to the wire antenna input and it seems to work, but there is a high level of noise on everything, even WWV stations. Connecting the ground to my house's ground doesn't make any difference.

I'd think the problem is that I have an antenna that has to snake around the house, near electrical wires, computers, lights, etc. that are causing interference.

I think a solution is to connect the random wire to shielded coax and run that from the attic to the basement and hopefully that will reduce interference. I think I need to use an impedance matcher to connect the wire to the coax, like this one:
http://www.shortwavestore.com/sws/product.php?productid=465&cat=0&page=1

Does this all sound right, or is there a better way to do this? With the random wire connected directly to the receiver, I can pick up a lot, but it's very noisy.

Thanks!

5243. Tri-ex vs US Towers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 17:46:17 UTC
From: steve <lane17@llnl.gov>
Message-ID: <1135791976.986773.247810@g47g2000cwa.googlegroups.com>
Source record: 65940

Hi- I have a used Tri-ex W51 that I picked up in an auction. I need to get a base section to set in concrete. I have heard that US Towers makes a suitable base or Tash Towers also has one. Are there any advantages or disadvantages of going to either manufacurer? Thanks in advance. Steve K9SL

5244. Re: SWL Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 18:22:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bil5r1988bl5ghqb1jlchas7522pq2q8j3@4ax.com>
Source record: 65941

On 28 Dec 2005 09:42:45 -0800, "Ben Sinclair" <bensinc@gmail.com>
wrote:

>I think a solution is to connect the random wire to shielded coax and
>run that from the attic to the basement and hopefully that will reduce
>interference.

Hi Ben,

Sounds like the right answer, short of putting your antenna outside
(with the same shielded coax).

>I think I need to use an impedance matcher to connect the
>wire to the coax, like this one:
>http://www.shortwavestore.com/sws/product.php?productid=465&cat=0&page=1

Will do nothing for noise that you haven't already accomplished with
the coax. Further, it says nothing of what's inside, nor offers any
specifications - just marketing snake-oil.

You could also choose to "choke" the end of the coax by using ferrites
in any of several forms. Research W2DU style BalUns on google and pay
attention to the theory of their operation.

Also, obtaining a very cheap ham 3 knob antenna tuner (without meters)
will perform all the matching you could wish for AND it will eliminate
the most common form of desensing for SWL (front end overload from out
of band transmitters - your friendly neighborhood AM station being
most often the culprit).

73's
Richard Clark, KB7QHC

5245. Re: Tri-Ex vs US Towers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 18:47:28 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <8bedneexiqBYQC_eRVn-oQ@comcast.com>
Source record: 65942

"steve" <lane17@llnl.gov> wrote in message
news:1135791976.986773.247810@g47g2000cwa.googlegroups.com...
> Hi- I have a used Tri-ex W51 that I picked up in an auction. I need to
> get a base section to set in concrete. I have heard that US Towers
> makes a suitable base or Tash Towers also has one. Are there any
> advantages or disadvantages of going to either manufacurer? Thanks in
> advance. Steve K9SL
>
Steve -

My personnel preference would be to go with Tashjian.

Tashjian currently produces towers under the TriEx name and they acquired
the TriEx engineering drawings.

After a number of well publicized cellular tower accidents (e.g. collapse,
accidents) many municipalities and county government placed new laws for
building permits and insurance coverage.
This is one reasons that you see the service being offered by Karl K.
Tashjian for commercial usage of these towers.
http://www.tashtowers.com/engineering.html

You should request the engineering specifications from Tashjian on your W51
tower.
http://www.tashtowers.com/wt51.htm

Lastly, your tower becomes part of your overall property - which is one
reason that building and property inspectors are now largely involved.

gb

5246. converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 18:53:34 UTC
From: Ron J <bigschlong@gmail.com>
Message-ID: <1135796014.460289.248300@g49g2000cwa.googlegroups.com>
Source record: 65943

Hey all,

I'm still skeptical about this formula:

Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)

Is this valid? I saw this formula somewhere and jotted it down.

Thanks!

5247. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 19:04:24 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <a_ednSR8vvQzfC_enZ2dnUVZ_vmdnZ2d@web-ster.com>
Source record: 65944

Ron J wrote:
> Hey all,
>
> I'm still skeptical about this formula:
>
> Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>
> Is this valid? I saw this formula somewhere and jotted it down.
>
> Thanks!
>
dBm is a measure of power, and the field strength as a function of power is going to depend on antenna characteristics.

The equation you have is a pretty direct conversion between power in dBm to voltage, with a magic proportionality factor (the 107) buried in the exponent.

So I suspect it's a valid function, but only for one type of antenna.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

5248. Re: Tri-Ex vs US Towers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 19:26:31 UTC
From: steve <lane17@llnl.gov>
Message-ID: <1135797989.127934.42730@f14g2000cwb.googlegroups.com>
Source record: 65945

Thanks for your response. I live out in the country and own the property all around the tower site with the closest neighbors appoximately 1/2 mile away so I am not worried about the tower falling on somebody but I am concerned about the overall robustness of the mount. I looked at the different webites and it looked like us towers had a larger footprint for the concrete pad than was speched out at tashtowers. I just wonder if it is way overkill for my application since the are building these bases for their own (ustowers) design. Any thoughts?

5249. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 19:29:02 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <pkp5r11egb6rthm27586i0ef5q311bvbq4@4ax.com>
Source record: 65946

On 28 Dec 2005 17:00:28 GMT, Allodoxaphobia <bit-bucket@config.com>
wrote:

>On Wed, 28 Dec 2005 02:33:45 -0500, Hal Rosser wrote:
>>
>> "Charlie" <charlie@play.com> wrote in message
>> news:11r2sc828n5ri78@news.supernews.com...
>>> Currently the top loop is at only 20ft but I am making many contacts.
>> Soon
>>> however they will be placed off a sidearm on the tower.
>>> The top loop could then be as high as 80 ft.
>>>
>>> I have read and read about this topic. Does anyone have any first hand
>>> knowledge of 6M height above ground comparisons especially for stacked
>>> loops? Thanks....
>>>
>>
>> 6m is line-of-sight, so higher is better than lower.
>
>IT IS??? !!! Then, I guess my confirmed QSO's with Japan, Australia,
>Greenland, Chile, and others -- plus all states except R.I. (sigh...)
>from western Colorado (while running just 9.5 watts) simply never
>happened.
>
>Jonesy

It is if the propagation isn't there or the moon is not a good shot.
;)

Then again I only have 14 countries on under 20W in the last 3 years.
I need KH and Alaska for WAS. RI is next door for me being in MA.
Even with the off peak years there is a lot of propagation
that pops up at odd times.

Allison

5250. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 19:31:45 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <gtp5r1dfm40ekfhma285dcthtq45duh3e4@4ax.com>
Source record: 65947

On Wed, 28 Dec 2005 08:25:18 -0600, Bob Bob <bob3bob3@cox.net> wrote:

>Hi Charlie
>
>I have read some of the responses you have received already. As you
>asked for first hand experience I hadnt commented initially.
>
>I wonder if you have tried modelling your configuration with height
>variables and applying the resultant radiation pattern to propagation
>modes? I'd suggest ground conditions for your area also need to be
>entered. I seem to remember from my dim dark past that ground
>reflections (and hence undesirable skyward radiation - often not usually
>an issue on VHF) are more of a problem when using a lower gain antenna.
>Maybe the loop in that respect might be worse than a quad/yagi?
>
>You'd be able to see the dB per foot height changes that occur and make
>a judgement from that.

Real simple. He's so close to the ground he has a lot of high angle
gain. As he goes up that will go down and the low angle gain will
improve.

>I have never used horiz loops on 6m.

Handy for local stuff like a 100 ore more miles in all directions.
I use one for the listening as I miss stuff with beams.

Allison

5251. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 20:48:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r5uh8j9kdgpb9@corp.supernews.com>
Source record: 65948

There's not enough information to calculate field strength. There's a direct relationship between uV/m (field strength) and W/m^2 (power density), providing you're in the far field and you know the intrinsic impedance of the medium (about 377 ohms for free space). But you need a distance from the source and the antenna gain in order to know what the power density is for a given power (dBm). So at the very least, you have to specify the distance from the source and the antenna gain to calculate field strength from dBm. And then it's valid only in the far field.

Roy Lewallen, W7EL

Ron J wrote:
> Hey all,
>
> I'm still skeptical about this formula:
>
> Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>
> Is this valid? I saw this formula somewhere and jotted it down.
>
> Thanks!
>

5252. Re: Tri-Ex vs US Towers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 21:17:38 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <o6SdnUmnMILLnC7eRVn-gA@comcast.com>
Source record: 65949

"steve" <lane17@llnl.gov> wrote in message
news:1135797989.127934.42730@f14g2000cwb.googlegroups.com...
> Thanks for your response. I live out in the country and own the
> property all around the tower site with the closest neighbors
> appoximately 1/2 mile away so I am not worried about the tower falling
> on somebody but I am concerned about the overall robustness of the
> mount. I looked at the different webites and it looked like us towers
> had a larger footprint for the concrete pad than was speched out at
> tashtowers. I just wonder if it is way overkill for my application
> since the are building these bases for their own (ustowers) design. Any
> thoughts?
>

Each tower engineering design and recommendation is based upon a set of assumptions about soils, drainage, tower stresses and wind loads.

The "size of the concrete footprint" is the engineer's design based upon these assumptions ... I would not venture into guessing what these criteria were --
I would ASK each vendor.
I think you will find that their assumptions are different and all you are seeing is the physical changes required based upon those assumptions..

Also, I would ask US Tower, before purchase, about using their base on your TriEx Tower .... you are "mixing" designs.

I would desire to get a "sign-off' by their engineer for such a substitution.

I understand your rural, no neighbors situation - BUT it can fall on your house.
Towers are of little resale value without the supporting engineering paperwork.

gb

5253. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 21:20:34 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <rIudnWTjF6wZnC7enZ2dnUVZ_sadnZ2d@comcast.com>
Source record: 65950

"Charlie" <charlie@play.com> wrote in message
news:11r2sc828n5ri78@news.supernews.com...
> Currently the top loop is at only 20ft but I am making many contacts.
> Soon however they will be placed off a sidearm on the tower.
> The top loop could then be as high as 80 ft.
>
> I have read and read about this topic. Does anyone have any first hand
> knowledge of 6M height above ground comparisons especially for stacked
> loops? Thanks....
>
> --
>
> Charlie-AD5TH
>
>
>

First off, what do you mean by LOOP? A Halo kind of antenna, or a vertically mounted loop? I suspect you mean a Halo (or M2). I ran an EZNEC simulation on a stacked pair, and it was not great. Minimum stacking distance is a bout 13 feet, with a gain 2db less than a single 3 element beam. Get the bugger up to 80 feet. A friend of mine had bought 2 M2 loops. Never bothered to put up the second one when he realized that you can't just stack them 3 feet apart.

Remember, 20 feet is already a wavelength up. If you really want high angle radiation, it would have to be a lot lower than that. That will work for E skip, not very good for F2, or locals. Even at 80 feet, you will still have multiple lobes, with a good part of the energy going almost straight up.

Tam/WB2TT

5254. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 21:22:04 UTC
From: Ralf Ballis - DL2MRB <dl2mrb@arcor.de>
Message-ID: <43b30233_2@news.arcor-ip.de>
Source record: 65957

dBm significant the logarithm relation to Power (mW). In case of field strength or voltage (mV) you have to multiplication with 20.

Take a look at:

http://www.sengpielaudio.com/calculator-volt.htm
http://www.nobbi.com/conversion.htm

and very good:

http://en.wikipedia.org/wiki/Decibel

Regards,

Ralf
--
Vy 73 es 55 de Ralf, DL2MRB
E-Mail: dl2mrb@arcor.de
www.hamradioboard.de

5255. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 21:38:46 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ta16r1tf3mvi7p1q1rts0d76rh7o6oir13@4ax.com>
Source record: 65951

On 28 Dec 2005 10:53:34 -0800, "Ron J" <bigschlong@gmail.com> wrote:

>Hey all,
>
>I'm still skeptical about this formula:
>
>Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>
>Is this valid? I saw this formula somewhere and jotted it down.

Your expression does not apply in general, it is the unstated
assumptions that are the issue (freq, receiver R, antenna factor.
bandwidth).

The calculator at http://www.vk1od.net/sc/FS2RPCalc.htm my be of
interest.

Owen

>
>Thanks!
--

5256. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 22:04:40 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <fu16r1h0e98cqi2sda5nks510odoqur0fr@4ax.com>
Source record: 65952

On Wed, 28 Dec 2005 21:38:46 GMT, Owen Duffy <owen@no.where> wrote:

>On 28 Dec 2005 10:53:34 -0800, "Ron J" <bigschlong@gmail.com> wrote:
>
>>Hey all,
>>
>>I'm still skeptical about this formula:
>>
>>Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>>
>>Is this valid? I saw this formula somewhere and jotted it down.
>
>Your expression does not apply in general, it is the unstated
>assumptions that are the issue (freq, receiver R, antenna factor.
>bandwidth).

With an Antenna Factor of 0dB/m (eg 0dBi gain at 30.83... MHz), a rx power of 0dBm/Hz in a matched receiver, would be the result of a field strength of ~107dBuV/m/Hz. So, the lhs of your formulat is in units of dBuV/m, and assumes AF=0dB/m and 1Hz bandwidth. AF depends on antenna gain and frequency, and antenna / receiver R.

Owen

>
>The calculator at http://www.vk1od.net/sc/FS2RPCalc.htm my be of
>interest.
>
>Owen
>
>>
>>Thanks!
--

5257. Re: Tri-Ex vs US Towers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 22:18:45 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ko26r1t44nuobk9ivb73i0itmgdgco7vum@4ax.com>
Source record: 65953

I do understand the problems some folks have with needing to satisfy
the political establishment.

However, when I refurbished my crank up free standing mast (about 55
feet) I took the position that as near as I can tell in my rural world
if it don't spill over onto some else's property, I can do want ever I
am willing to risk.

When I was specifying the concrete I discovered that whatever I
ordered, the concrete company was going to charge me for a minimum of
5 yards. 3-4 would have done the job...

The hole was not a problem, I have a back hoe. The steel was not a
problem either, just make sure there is 50% more than anyone thinks
you need, they sell it by the pound!

The supporting gantry was designed the same way. If a 6" cross section
will do, go with 12", when you are buying from salvage yards you only
have to find enough material to do it one time!

Build it so it cannot fall down!

On 28 Dec 2005 11:26:31 -0800, "steve" <lane17@llnl.gov> wrote:

>Thanks for your response. I live out in the country and own the
>property all around the tower site with the closest neighbors
>appoximately 1/2 mile away so I am not worried about the tower falling
>on somebody but I am concerned about the overall robustness of the
>mount. I looked at the different webites and it looked like us towers
>had a larger footprint for the concrete pad than was speched out at
>tashtowers. I just wonder if it is way overkill for my application
>since the are building these bases for their own (ustowers) design. Any
>thoughts?
John Ferrell W8CCW

5258. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 22:34:33 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <wnEsf.27816$wq.2730@bignews7.bellsouth.net>
Source record: 65954

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrndr5h5c.fp4.bit-bucket@shell.config.com...
> On Wed, 28 Dec 2005 02:33:45 -0500, Hal Rosser wrote:
> >
> > "Charlie" <charlie@play.com> wrote in message
> > news:11r2sc828n5ri78@news.supernews.com...
> >> Currently the top loop is at only 20ft but I am making many contacts.
> > Soon
> >> however they will be placed off a sidearm on the tower.
> >> The top loop could then be as high as 80 ft.
> >>
> >> I have read and read about this topic. Does anyone have any first hand
> >> knowledge of 6M height above ground comparisons especially for stacked
> >> loops? Thanks....
> >>
> >
> > 6m is line-of-sight, so higher is better than lower.
>
> IT IS??? !!! Then, I guess my confirmed QSO's with Japan, Australia,
> Greenland, Chile, and others -- plus all states except R.I. (sigh...)
> from western Colorado (while running just 9.5 watts) simply never
> happened.
>
> Jonesy
> --
> Marvin L Jones | jonz | W3DHJ | linux
> Pueblo, Colorado | @ | Jonesy | OS/2 __
> 38.24N 104.55W | config.com | DM78rf | SK

OOPS! - sorry, I forgot about 50M DX - skip does happen at 50mhz sometimes
I hear its an enjoyable pass-time to attempt long-distance short-duration
contacts on 50mhz.
Does ducting also occur on 50 ?

5259. Re: FA: Book: SPREAD SPECTRUM SYSTEMS: An Advanced Electronics/Math Book

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-28 23:21:40 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <43B31EC2.3010601@nettally.com>
Source record: 65955
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment

THANKS FOR SPAMMING US WITH YOUR ANTI-SPAM!

John E. Golden wrote:

>Auctions should be listed in [alt.marketplace.online.ebay]...NOT here!
>
>

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"ï¿½

"Treason doth never prosper: what's the reason?
For if it prosper, none dare call it treason."

"Follow The Money" ;-P

5260. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 00:24:13 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <gba6r198uokjnkhkaa8c5vgpthbs4nllmp@4ax.com>
Source record: 65956

On Wed, 28 Dec 2005 08:00:51 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>After making an error here between the effects of odd versus even quarter waves
>at the source I am getting closer to being able to measure the impedance of a
>loaded vertical 'in the shack'. At the moment this is limited to a single
>frequency 'close' to a frequency of interest. But even that is a triumph.

Is that as hard as it looks?

Take an example:

You have an impedance meter to measure complex impedance at the
frequency of interest, being 3.6MHz for the sake of the example.

(This technique depends on the behaviour of the tranmission lines, you
would want to be sure that the transmission lines are in good
condition and work as characterised.)

You measure the impedance 40-j15 for example looking into a cascade of
5m of RG58 and 50m of 9913 connected to the unknown load.

The Z at the load end of the RG58 is 60.42-j20.13. That is the Z
looking into the 9913.

The Z at the load end of the 9913 is 41.94+j18.03.

Is this the kind of thing you are trying to do?

Bear in mind that you cannot know the characteristics of the lines etc
to support the precision shown above. You also need to keep in mind
the sensitivity of the results to changes in parameters to form a view
of the confidence limits of your measurements.

This took more time to write about than it did to find the results.

Owen
--

5261. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 02:28:04 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndr6idk.2g1l.bit-bucket@shell.config.com>
Source record: 65958

On Wed, 28 Dec 2005 17:34:33 -0500, Hal Rosser wrote:
>
> "Allodoxaphobia" <bit-bucket@config.com> wrote in message
> news:slrndr5h5c.fp4.bit-bucket@shell.config.com...
>> On Wed, 28 Dec 2005 02:33:45 -0500, Hal Rosser wrote:
>> >
>> > "Charlie" <charlie@play.com> wrote in message
>> > news:11r2sc828n5ri78@news.supernews.com...
>> >> Currently the top loop is at only 20ft but I am making many contacts.
>> > Soon
>> >> however they will be placed off a sidearm on the tower.
>> >> The top loop could then be as high as 80 ft.
>> >>
>> >> I have read and read about this topic. Does anyone have any first hand
>> >> knowledge of 6M height above ground comparisons especially for stacked
>> >> loops? Thanks....
>> >>
>> >
>> > 6m is line-of-sight, so higher is better than lower.
>>
>> IT IS??? !!! Then, I guess my confirmed QSO's with Japan, Australia,
>> Greenland, Chile, and others -- plus all states except R.I. (sigh...)
>> from western Colorado (while running just 9.5 watts) simply never
>> happened.
>
> OOPS! - sorry, I forgot about 50M DX - skip does happen at 50mhz sometimes

Propagation to Japan, Australia, Greenland, Chile... ain't skip.
It's F2 -- or Es-connected F2. Gets Real Crazy every 11 years or so.

> Does ducting also occur on 50 ?

There's little that doesn't occur on 50 MHz. I have completed QSO's by
Es, F2, Au, meteor, tropo ducting, and weird flavors and combinations
of more than one of'em. Fellers also do EME on 6M - tho' not I.

When the band is wide open on an Es opening -- maybe a 2X Es event --
you'll find the FB-OP-to-Jerk ratio Real High. It's one of the reasons
I've all but given up on the 'popular' HF bands.

And, to steer it back On Topic:
Fiddl'in with antennas on 6M is SO EASY.

73
Jonesy
--

Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

5262. Recommendation for 915MHz omni antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 02:29:14 UTC
From: David <webreply@orbitcoms.com>
Message-ID: <_RHsf.124838$V7.65294@news-server.bigpond.net.au>
Source record: 65959

Hi,

I am looking for recommendation for a design of antenna to operate
in the band 915-928 MHz.

The desired response is omni-directional with gain greater than or equal
to a 1/2 wave dipole, something that does not require a ground plane
and is reasonably straight forward to manufacture in-house.

So far I am considering a 1/2 wave vertical dipole with feed through
lower element, J-Pole and Collinear.

Thanks in advance for any ideas or link to a web site that might have
some homebrew versions I could replicate and try.

--

Kind Regards

David Huisman

5263. Re: Searching for circuit for active antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 03:06:27 UTC
From: EE123 <onyx49@juno.com>
Message-ID: <1135825587.702789.65130@g49g2000cwa.googlegroups.com>
Source record: 65960

Reinhard Zwirner wrote:
> Dear experts
>
> I'm searching for a simple but good-working and reliable circuit
> for a 10 kHz - 30 MHz active antenna. It would be very nice if
> someone showed me a link to such a circuit.
>
> TIA and a happy new year
>
> Reinhard

A guy named Salvati has several articles in EDN etc on using
active antennas. Add his name in the google search.
IIRC, he used J310 JFETs to add the active portion of the
circuit.

Good luck,
Dave

5264. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 05:37:05 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <KICdnVH4JqmZ6y7eRVn-og@comcast.com>
Source record: 65961

Owen,

Thanks for the example. I do not have an impedance meter. I do have a vector voltmeter that will read the phase and value of the reflected signal.

The core problem is: How to measure and improve the performance of a loaded vertical. The unknowns are the value of ground and antenna resonance.

Setting the coax to a 1/4 wave multiple was a way to remove its phase altering characteristics from the reflected signal at a frequency of interest. That seems to be working and is predictable to measure the 1/4 wave odd, open circuit, resonant points, etc. This simply proves consistent measurement and correct identification of the electrical cable length.

I am pretty confident about the coax measurements at this time. Now on the to antenna. I am not what the reflected angle is from the antenna. The coaxpair program predicts it can vary 180 degrees for a purely resistive load.

Thanks for your help - Dan

Owen Duffy wrote:
> On Wed, 28 Dec 2005 08:00:51 -0800, dansawyeror
> <dansawyeror@comcast.net> wrote:
>
>
>
>>After making an error here between the effects of odd versus even quarter waves
>>at the source I am getting closer to being able to measure the impedance of a
>>loaded vertical 'in the shack'. At the moment this is limited to a single
>>frequency 'close' to a frequency of interest. But even that is a triumph.
>
>
> Is that as hard as it looks?
>
> Take an example:
>
> You have an impedance meter to measure complex impedance at the
> frequency of interest, being 3.6MHz for the sake of the example.
>
> (This technique depends on the behaviour of the tranmission lines, you
> would want to be sure that the transmission lines are in good
> condition and work as characterised.)
>
> You measure the impedance 40-j15 for example looking into a cascade of
> 5m of RG58 and 50m of 9913 connected to the unknown load.
>

> The Z at the load end of the RG58 is 60.42-j20.13. That is the Z
> looking into the 9913.
>
> The Z at the load end of the 9913 is 41.94+j18.03.
>
> Is this the kind of thing you are trying to do?
>
> Bear in mind that you cannot know the characteristics of the lines etc
> to support the precision shown above. You also need to keep in mind
> the sensitivity of the results to changes in parameters to form a view
> of the confidence limits of your measurements.
>
> This took more time to write about than it did to find the results.
>
> Owen
> --

5265. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 06:20:38 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <bqu6r1ltrdj7d4hlk18j1rq9tm5opq2k2r@4ax.com>
Source record: 65962

On Wed, 28 Dec 2005 21:37:05 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Owen,
>
>Thanks for the example. I do not have an impedance meter. I do have a vector
>voltmeter that will read the phase and value of the reflected signal.

If you mean relative to the forward wave, then you can calculate Z
from that.

>
>The core problem is: How to measure and improve the performance of a loaded
>vertical. The unknowns are the value of ground and antenna resonance.
>
>Setting the coax to a 1/4 wave multiple was a way to remove its phase altering
>characteristics from the reflected signal at a frequency of interest. That seems
>to be working and is predictable to measure the 1/4 wave odd, open circuit,
>resonant points, etc. This simply proves consistent measurement and correct
>identification of the electrical cable length.

I don't know that that is necessary or helpful.

>
>I am pretty confident about the coax measurements at this time. Now on the to
>antenna. I am not what the reflected angle is from the antenna. The coaxpair
>program predicts it can vary 180 degrees for a purely resistive load.

Yes, the complex reflection coefficients for a 51+j0 ohm load and
49+j0 ohm load are both very small magnitude, and 180 deg different in
phase.

Don't worry about the reflection coefficient at the antenna, find what
it is at the instrument interface, calculate the Z, and use one of the
many calculators to work out what it is at the end of the line (they
use the input reflection coefficient and propagation constant to do
that, but they do it internally).

You know that Gamma=(Zl-Zo)/(Zl+Zo), rearrange the terms to find Zl
knowing Zo and Gamma, measure Gamma with your instrument, calculate
Zl... and the rest is easy.

Back to my worked example, if you instrument indicated Gamma was 0.195
< -117 in 50ohms, you would calculate Z to be 40-j15... and go from
there.

What more do you need?

Owen
>
>Thanks for your help - Dan
>
>
>
>Owen Duffy wrote:
>> On Wed, 28 Dec 2005 08:00:51 -0800, dansawyeror
>> <dansawyeror@comcast.net> wrote:
>>
>>
>>
>>>After making an error here between the effects of odd versus even quarter waves
>>>at the source I am getting closer to being able to measure the impedance of a
>>>loaded vertical 'in the shack'. At the moment this is limited to a single
>>>frequency 'close' to a frequency of interest. But even that is a triumph.
>>
>>
>> Is that as hard as it looks?
>>
>> Take an example:
>>
>> You have an impedance meter to measure complex impedance at the
>> frequency of interest, being 3.6MHz for the sake of the example.
>>
>> (This technique depends on the behaviour of the tranmission lines, you
>> would want to be sure that the transmission lines are in good
>> condition and work as characterised.)
>>
>> You measure the impedance 40-j15 for example looking into a cascade of
>> 5m of RG58 and 50m of 9913 connected to the unknown load.
>>
>> The Z at the load end of the RG58 is 60.42-j20.13. That is the Z
>> looking into the 9913.
>>
>> The Z at the load end of the 9913 is 41.94+j18.03.
>>
>> Is this the kind of thing you are trying to do?
>>
>> Bear in mind that you cannot know the characteristics of the lines etc
>> to support the precision shown above. You also need to keep in mind
>> the sensitivity of the results to changes in parameters to form a view
>> of the confidence limits of your measurements.
>>
>> This took more time to write about than it did to find the results.
>>
>> Owen
>> --
--

5266. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 06:39:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dp00b2$j20$1@nwrdmz03.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 65963

Richard, I thank you for your time and trouble expended in trying to educate me regarding the field strength from a 1 Kw transmitter at a distance of 1 Km.

Your efforts, of course, will not be wasted on other readers of this newsgroup. Very good stuff!

But you have misunderstood my attitude towards this discussion.

As I have said before, amateurs and professionals alike, all suffer from delusions of accuracy. The uncertainty in prediction of field strength of groundwaves can amount to 10 or 15 dB or even more at extreme distances.

When I say my program correctly predicts a field strength of 300 millivolts per metre at a distance of 1 Km from a 1 Kw transmitter, nobody can disprove it. Even the 'bibles' state it as a matter of fact. But we all know how much faith can be placed in 'bibles'.

To be of use, all measurements should be associated with an uncertainty. Only then can the originators be judged to understand what they are waffling about.

Thank you for your interest.

Reg, G4FGQ.

5267. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 07:13:20 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <2v27r1lf4hr0ql9g087fq0t2ht8oeoblgm@4ax.com>
Source record: 65964

On Thu, 29 Dec 2005 06:20:38 GMT, Owen Duffy <owen@no.where> wrote:

>You know that Gamma=(Zl-Zo)/(Zl+Zo), rearrange the terms to find Zl
>knowing Zo and Gamma, measure Gamma with your instrument, calculate
>Zl... and the rest is easy.

For avoidance of doubt, the Zl above is the z at the instrument
interface. 'The rest is easy' is the process of working out Z at the
antenna knowning z at the source end of a known transmission line.

>Back to my worked example, if you instrument indicated Gamma was 0.195
>< -117 in 50ohms, you would calculate Z to be 40-j15... and go from
>there.

Meaning the rest of my example which led to a antenna z of
41.94+j18.03

>
>What more do you need?
>
>Owen

--

5268. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 07:53:44 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <t537r11vc4a7engiciteduu2008b86ioui@4ax.com>
Source record: 65965

On Wed, 28 Dec 2005 21:37:05 -0800, dansawyeror
<dansawyeror@comcast.net> wrote:

>Owen,
>
>Thanks for the example. I do not have an impedance meter. I do have a vector
>voltmeter that will read the phase and value of the reflected signal.
>
>The core problem is: How to measure and improve the performance of a loaded
>vertical. The unknowns are the value of ground and antenna resonance.
>
>Setting the coax to a 1/4 wave multiple was a way to remove its phase altering
>characteristics from the reflected signal at a frequency of interest. That seems
>to be working and is predictable to measure the 1/4 wave odd, open circuit,
>resonant points, etc. This simply proves consistent measurement and correct
>identification of the electrical cable length.

You're making this way too complex (pun intended).. Why not just
connect the coax to the bridge and put your open-short-load standards
on the far end and do the calibration?

Or move the instrument out in the field?

For example:

http://users.triconet.org/wesandlinda/Field_8405_a.jpg

5269. Re: SWL Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 08:00:10 UTC
From: mike.e.worrall@abc.com
Message-ID: <1135843210.248284.12540@g44g2000cwa.googlegroups.com>
Source record: 65966

Ben: Welcome to the world of SWL'ing in the new Century...

It sometimes seems the whole world is a huge RF noise generator, and the more urban your listening location, the worse off you're likely to be. Too, just wait 'till 'BPL' (broadband over power lines) becomes a reality...

Known RF noise generators commonly found in the home:

Light Dimmers
Computers
Televisions
Fish Tank Heaters
Electric Blankets
Microwave Ovens
Cell phones

And if you're in a suburban neighborhood, these noise sources can be coming from any (or all) of your neighbors homes.

If you're attempting to hear the microwatt station from Micronesia, you'll need a well considered antenna system to improve the signal (good) - to - noise (bad) ratio.

Generally this means an antenna that is erected as high as possible, and at right angles to known noise sources.

An antenna tuner attempts to 'transform' the impedance of a random length wire to 50 ohms; useful in *transmitting* applications, but of little or no use in reducing electrical noise interference to a receiver.

A better bet would be a device that captures the same noise as your main receive antenna, then 'compares' this common noise signal and cancels it out. Search for the 'Timewave ANC-4 RF Filter', a somewhat fussy, but very effective "locally generated noise eliminator".

Good Luck.

MW

5270. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 10:15:50 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <q4d7r1p885j2vc4vi9lmegmbo8kkij082n@4ax.com>
Source record: 65967

On Thu, 29 Dec 2005 00:53:44 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>You're making this way too complex (pun intended).. Why not just
>connect the coax to the bridge and put your open-short-load standards
>on the far end and do the calibration?
>
>Or move the instrument out in the field?

Wes, I have been guessing that Dan wants to measure the antenna over a band of frequencies, and doesn't want to be popping up to the feedpoint for every frequency cal.

No doubt, the process you propose Wes is simpler and more accurate, if it is physically convenient.

Would calibration against a single s/c standard be accurate enough for the purpose at hand. Perhaps a coax relay at the antenna feedpoint to switch between a s/c port and the real load might be accurate enough for calibration, and a whole lot more convenient. IIRC there is only around 0.4dB of line loss from the shack (ie the desired VVM location) to the feedpoint.

Dan, I think you have gotten on a sidetrack about building the transmission line out to a tuned length. It is not necessary, or even desirable as far as I can see, but it has the downside of complicating the calcs and increasing scope for errors when you build out with a different line type.

Owen
--

5271. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 11:57:40 UTC
From: Bill <kc4pe@bellsouth.net>
Message-ID: <g8Qsf.3179$Nr6.32@bignews5.bellsouth.net>
Source record: 65968

Everything you need plus!!!!

http://www.sengpielaudio.com/Calculations03.htm

Bill
kc4pe@mindspring.com

"Ron J" <bigschlong@gmail.com> wrote in message
news:1135796014.460289.248300@g49g2000cwa.googlegroups.com...
> Hey all,
>
> I'm still skeptical about this formula:
>
> Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>
> Is this valid? I saw this formula somewhere and jotted it down.
>
> Thanks!
>

5272. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 12:47:41 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <7fm7r15e4ugtpf8do5ohk8l691jcmqaq6k@4ax.com>
Source record: 65969

>Propagation to Japan, Australia, Greenland, Chile... ain't skip.
>It's F2 -- or Es-connected F2. Gets Real Crazy every 11 years or so.

Worked GB from MA only 2 years ago well off the solar peak. During the
summer (2005) I got a few Carib stations and Brermuda.

>> Does ducting also occur on 50 ?
>
>There's little that doesn't occur on 50 MHz. I have completed QSO's by
>Es, F2, Au, meteor, tropo ducting, and weird flavors and combinations
>of more than one of'em. Fellers also do EME on 6M - tho' not I.

A local does the EME thing. I do low power (20W PEP max) off solar
power. But I like the band as it's easy for antennas and fun to
design radios for.

>When the band is wide open on an Es opening -- maybe a 2X Es event --
>you'll find the FB-OP-to-Jerk ratio Real High. It's one of the reasons
>I've all but given up on the 'popular' HF bands.

There have been times when it's like a 20m pileup.

>And, to steer it back On Topic:
>Fiddl'in with antennas on 6M is SO EASY.

;)

Allison
KB!GMX FN42HH

5273. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 14:23:46 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b3f0b7_2@newsfeed.slurp.net>
Source record: 65970

"Reg Edwards">
> When I say my program correctly predicts a field strength of 300
> millivolts per metre at a distance of 1 Km from a 1 Kw transmitter,
> nobody can disprove it. Even the 'bibles' state it as a matter of
> fact. But we all know how much faith can be placed in 'bibles'.
>
> To be of use, all measurements should be associated with an
> uncertainty. Only then can the originators be judged to understand
> what they are waffling about.

Interesting point of view, Reg.

The correct application of physical laws disproves your contention, and the equations that do it are not difficult. Here they are:

E = SQRT(49.2*P)/D

where E = Peak inverse (free-space) field from a self-resonant, 1/2-wave dipole (volts/meter)
D = Distance (meters)

As radiation from a vertical antenna with its base at ground level is confined to one hemisphere, field strength at that distance over a perfect, infinite, flat "ground" plane is E * SQRT(2).

This generates the value of the maximum possible field from a perfect 1/4-wave vertical radiator over a perfect ground plane, which has been proven and used for many decades in the broadcast industry. This is the groundwave field that then is subject to various propagation losses related to earth conductivity, diffraction etc over long paths, once the radiation has been launched. N.B. -- at a distance of 1 km, such losses are negligible for the typical broadcast vertical with its 120 buried radials, regardless of ground conductivity.

Why not use the formulae in your program that actually generates the correct value, instead of just saying it does, or implying that your approach is "good enough?"

RF

5274. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 15:09:15 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <spad83-8cm.ln1@p400bob.personal.cox.net>
Source record: 65876

And to complicate matters further the max antenna height being talked about being around 3-4 wavelengths off the ground is going to break the radiation pattern up into a number of lobes at various vertical angles.

For that reason alone I think it is still worth modelling. There will be specific heights where the horizontal radiated component is at a maximum and this is likely the most desirable. It will also give a good indication of what takeoff angles will be like for ionospheric propagation modes. You'd also see the spacing/height effect on undesirable straight upwards radiation.

Then again a crank up/down tower and maybe inter element spacing adjustment mght be a good empirical way to get the right data as well.

Bob VK2YQA

Allison-nospam@nouce.bellatlantic.net wrote:

> Real simple. He's so close to the ground he has a lot of high angle
> gain. As he goes up that will go down and the low angle gain will
> improve.

5275. Re: If the ideal lenght of an antenna is 1/4 Wave lenght then way are the Car Cellular antennas are longer then this ?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 15:31:21 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11r807srhnt22d8@corp.supernews.com>
Source record: 65971

As someone who is contemplating retirement from formal teaching duties after
42 years of teaching EE, Reg provides me an important bit of instruction
about retirement. All of my life, I have noted those I wish to emulate and
those who I wish not to emulate.
More experienced people (read: old folk) are able to contribute stories
of things to do and not to do. Reg and several others here have done just
that. Many important or practical parts of the art are not easy to find
even with the WEB. Knowledge should be cumulative.
On the other hand, tossing a stick of dynamite into the lake to see how
many fish come to the surface (this time) is in a different category.
73, Mac N8TT
P.S. Obviously, if the question were posed in law school, the best answer
would be to show that the "If" is not satisfied. Since the ideal length of
an antenna is not 0.25 WL, the remainder of the issue is moot.
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:11r3bhdh1gfja72@corp.supernews.com...
> Reg Edwards wrote:
> > Just to start an argument,
>
> Things are even duller than usual in Rowley Regis, I see.
>
> why is it that EZNEC shows zero gain for a
> > vertical antenna in the horizontal plane? Whereas, all your diagrams
> > show maximum gain along the horizontal.
>
> C'mon Reg, it's only been three months since you last asked this and got
> it answered(1). The time before that was four years earlier(2), and
> before that multiple times going back at least to 1998(3). At the rate
> you're going, you'll be asking it weekly before long. Getting tired of
> promoting "TLI"s, grumping at "Gurus" (while carefully excluding
> yourself, of course), grousing about Americans, and asking "Who's
> Kraus"? C'mon, be original. Surely you can think of a new topic to keep
> you awake on those long, boring evenings. I've got an idea -- maybe you
> can use your knowledge to actually help some of the folks who ask
> serious questions on this newsgroup.
>
> For anyone who wants an answer to Reg's perennial question, use
> groups.google.com to look up the following threads on this newsgroup,
> where Reg has asked the same question and where it's been answered:
>

> (1) "best HF antenna system next to a trailer?", Sept. 2005
> (2) "40M Delta Loop Advice Needed:", May 2001
> (3) "Raised V's burried ground systems." [sic], Feb. 2000
> "Ground Radial system comparisons", April 1999
> "Is there", Aug. 1998
> "Better for DXing: Beam or vertical?", Aug. 1998
>
> Roy Lewallen, W7EL

5276. Re: Recommendation for 915MHz omni antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 15:43:49 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <mqcd83-jdm.ln1@p400bob.personal.cox.net>
Source record: 65975

David

You are going to have to be more specific as to your intended use.

Assuming you are talking about being omnidirectional horizontally from the antenna, virtually any form of collinear construction would suit. This is provided the gain doesnt get so high and the vertical half power beamwidth doesnt get so narrow that your use of it drops out of the pattern. (These gain and beamwidth figures being inversely related)

For ease of manufacture I'd probably go for a centrally fed collinear array with a number of 1/4 wave phasing sections. I'd feed it at the centre phasing section in a similar manner to a jpole but with a 4:1 coaxial balun. You could make this antenna from (say) a single 3/16" copper pipe/wire length. This construction may not suit if you want to run it indoors but will be well suited to side tower mounting.

A "super" jpole or one with a phasing section and extra half wave on top might be another option. Part the way through this page;

http://www.cebik.com/vhf/jp4.html

Something I havent proven to myself so please take this with a grain of salt, when feeding a vertical collinear antenna from its base very good feedline decoupling is needed to reduce the effect of skying the pattern from the antenna . What is more of a problem though (and what I havent researched) is that without allowing for power loss (through phasing delays etc) from one element to the next means you have the same radiation skying effect, the lower elements radiating more than the upper. One trick here is to mount then antenna inverted or complicate the construction with a centered feedpoint.

I havent checked websites for 900MHz plans but I have heard that they are very popular. It may even be cheaper for you to purchase two medium gain commercial products (that required a groundplane) and arrange them like a dipole, feeding them through a 1/4 wave Q section. If an antenna is designed to be 50 ohms resistive over a ground it will be close to 100 ohms in dipole mode. (Making the Q section 75 ohms will do the trick)

Hope this is helpful

Cheers Bob VK2YQA

David wrote:
> The desired response is omni-directional with gain greater than or equal
> to a 1/2 wave dipole, something that does not require a ground plane
> and is reasonably straight forward to manufacture in-house.

5277. Re: Recommendation for 915MHz omni antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 15:47:53 UTC
From: Ralph E Lindberg <n7bsn@callsign.net>
Message-ID: <n7bsn-1FA488.07475329122005@individual.net>
Source record: 65972

In article <_RHsf.124838$V7.65294@news-server.bigpond.net.au>,
David <webreply@orbitcoms.com> wrote:

> Hi,
>
> I am looking for recommendation for a design of antenna to operate
> in the band 915-928 MHz.
>
> The desired response is omni-directional with gain greater than or equal
> to a 1/2 wave dipole, something that does not require a ground plane
> and is reasonably straight forward to manufacture in-house.
>
> So far I am considering a 1/2 wave vertical dipole with feed through
> lower element, J-Pole and Collinear.
>
> Thanks in advance for any ideas or link to a web site that might have
> some homebrew versions I could replicate and try.

While they are into commercial sales, you could look at what Hyperlink
is selling
http://www.hyperlinktech.com/web/antennas_900.php

--

Personal e-mail is the n7bsn but at amsat.org
This posting address is a spam-trap and seldom read
RV and Camping FAQ can be found at
http://www.ralphandellen.us/rv

5278. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 15:48:27 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndr81ab.2ae7.bit-bucket@shell.config.com>
Source record: 65973

How is that you have your Forte Free Agent set up that you do not do attributions?

On Thu, 29 Dec 2005 12:47:41 GMT, Allison-nospam@nouce.bellatlantic.net wrote:
>
>>When the band is wide open on an Es opening -- maybe a 2X Es event --
>>you'll find the FB-OP-to-Jerk ratio Real High. It's one of the reasons
>>I've all but given up on the 'popular' HF bands.
>
> There have been times when it's like a 20m pileup.

Ya, but... For the Greater Part, _everybody_ acts like Ladies And Gentlemen. You don't see that on 20M.

Jonesy W3DHJ

5279. Ideas for Inside 144/440 Mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 15:57:06 UTC
From: Gary KW4Z <kw4z@charter.net>
Message-ID: <BFD97182.A84E%kw4z@charter.net>
Source record: 65974

I am not looking to punch any holes in the walls or ceiling to get a coax from an outdoor 144/440 Mhz antenna. I'm setting up a mobile rig powered off an Astron Power Supply in order to allow my wife to communicate on some of the local repeaters so she can talk to and follow me into work.

The antenna can be simple as something that has a magnetic mount that sets on top of the power supply or something that might present some measure of gain. If any of you have eny experience with either building antennas or have one you purchased that you really like I would love to know what it is and consider it to fit my needs.

Thanks in advance

Gary

5280. Re: SWL Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 16:17:52 UTC
From: Ben Sinclair <bensinc@gmail.com>
Message-ID: <1135873072.438394.51080@o13g2000cwo.googlegroups.com>
Source record: 65877

Thanks for the replies! Yesterday I connected my random wire to the center of my coax and strung it down to the basement. It seems to work, but there is still some noise. I don't really have anything to compare it to though.

I'll research the noise filters and see what I can find. Is the W2DU balun something I should still consider? The "wire man" has several and they are fairly inexpensive, so I could at least try one.

I don't know a lot about how propagation works, but does it seem normal that In the early evening I could hear WWV on 10, but not 2.5, 5, or any other frequency, then late at night I couldn't even hear it on 10? This morning it was again coming in loud and clear on 10, but not any other frequency.

5281. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 16:34:33 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <teUsf.30580$x%2.16163@trnddc06>
Source record: 65878

"Owen Duffy" <owen@no.where> wrote in message
news:q4d7r1p885j2vc4vi9lmegmbo8kkij082n@4ax.com...
> On Thu, 29 Dec 2005 00:53:44 -0700, Wes Stewart <n7ws*@*yahoo.com>
> wrote:
>
>
>>You're making this way too complex (pun intended).. Why not just
>>connect the coax to the bridge and put your open-short-load standards
>>on the far end and do the calibration?
>>
>>Or move the instrument out in the field?
>
> Wes, I have been guessing that Dan wants to measure the antenna over a
> band of frequencies, and doesn't want to be popping up to the
> feedpoint for every frequency cal.
>
> No doubt, the process you propose Wes is simpler and more accurate, if
> it is physically convenient.
>
> Would calibration against a single s/c standard be accurate enough for
> the purpose at hand. Perhaps a coax relay at the antenna feedpoint to
> switch between a s/c port and the real load might be accurate enough
> for calibration, and a whole lot more convenient. IIRC there is only
> around 0.4dB of line loss from the shack (ie the desired VVM location)
> to the feedpoint.
>
> Dan, I think you have gotten on a sidetrack about building the
> transmission line out to a tuned length. It is not necessary, or even
> desirable as far as I can see, but it has the downside of complicating
> the calcs and increasing scope for errors when you build out with a
> different line type.
>
> Owen

Wes, and Owen, This problem of how to resolve the terminating impedance
seems so simple that I realize that I (again) must be missing something.
Wouldnt it be accurate enough for Dan to record the impedance at his coupler
for two conditions, 1) short circuit at the antenna end of the coax, and 2)
the antenna connected. Plot both impedances on a Smith Chart. Since the
impedance associated with the short is known to be zero, he needs only to
rotate *both* impedances thru the same angle needed to place the short ckt
impedance at zero on the smith Chart.

Jerry

5282. Re: Ideas for Inside 144/440 Mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 16:43:18 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <7agd83-ggm.ln1@p400bob.personal.cox.net>
Source record: 65880

Hi Gary

How about a extended double ZEPP made from aluminium foil stuck to the window.

I saw a design somewhere that was 5/8 over 5/8 on 70cm and kind of like a dipole on 2M. The hairpin section was kind of long (more than a 1/4 wave) It wasnt a foil on window variety but the design would still work.

It was on one of the VK PBBS's some time ago. If you cant find it on the web get back to me and I'll have a look.

Yes it is a dual band antenna 144/440.

Cheers Bob W5/VK2YQA

Gary KW4Z wrote:
> I'm setting up a mobile rig powered
> off an Astron Power Supply in order to allow my wife to communicate on some
> of the local repeaters so she can talk to and follow me into work.

5283. Re: SWL Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 16:51:17 UTC
From: mike.e.worrall@abc.com
Message-ID: <1135875077.805049.276510@f14g2000cwb.googlegroups.com>
Source record: 65879

>From the NIST WWV FAQ:

"Multiple frequencies are used because shortwave propagation varies with many factors, including time of year, time of day, geographical location, solar and geomagnetic activity, weather conditions, and antenna type and configuration. In general, the lower frequencies of 2.5 and 5 MHz are best during nighttime hours, the higher frequencies of 15 and 20 MHz are better during daytime hours, and 5 and 10 MHz are probably the best compromises overall. The 5, 10, and 15 MHz transmissions are at higher power than the other frequencies."

MW

5284. Re: SWL Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 17:41:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k968r1hc70c2q2lig8tv7hum0d3rb33ltg@4ax.com>
Source record: 65881

On 29 Dec 2005 08:17:52 -0800, "Ben Sinclair" <bensinc@gmail.com>
wrote:
>I'll research the noise filters and see what I can find.

Hi Ben,

They are nice toys suitable to sources of noise that are not easy to
fix, like a power pole arcing (or a neighbor's electric fence around
the horse pasture). Still, if you simply visit the neighbor and offer
to fix his problem (grass is too high, or a wire is drooping); or call
the utility (it is in their interest to fix their noisy poles); then
you've not only saved money, you don't have that noise anymore.

>Is the W2DU balun something I should still consider?

Like I said, research the theory behind it. You don't actually have
to buy anything if you coiled the far end of the coax - research the
properties of a transmission choke. Choking your transmission line
can push your home's contribution of noise down considerably.

>I don't know a lot about how propagation works, but does it seem normal
>that In the early evening I could hear WWV on 10, but not 2.5, 5, or
>any other frequency, then late at night I couldn't even hear it on 10?
>This morning it was again coming in loud and clear on 10, but not any
>other frequency.

This is one of the hallmarks of listening to WWV, WWVH, or CHU or any
number of time stations or beacons (CHU, located 15 km southwest of
Ottawa, transmits on 3330 kHz, 7335 kHz, and 14670 kHz). They give
you an indication of how well propagation is working from those
points, to you, on those bands at any particular time of day (which is
a significant factor). They are always there, and always at a known
power level. For example, this makes it quite simple to determine
that if you cannot hear WWV at 2.5MHz with 1KW, you are not going to
hear anyone else in Colorado on 2.5MHz unless they have substantially
more power. On the other hand, there is nothing in that region to
listen to anyway given this is an extinct marine band, and the seas
around Fort Collins evaporated millions of years ago.

73's
Richard Clark, KB7QHC

5285. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 17:53:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r88kl7otg63a7@corp.supernews.com>
Source record: 65882

Bob Bob wrote:
> And to complicate matters further the max antenna height being talked
> about being around 3-4 wavelengths off the ground is going to break the
> radiation pattern up into a number of lobes at various vertical angles.
>
> For that reason alone I think it is still worth modelling. There will be
> specific heights where the horizontal radiated component is at a maximum
> and this is likely the most desirable. . .

Modeling will show that at great distances from the antenna, the horizontally radiated field is zero from any horizontally polarized antenna over ground.

Roy Lewallen, W7EL

5286. OT: Where do I get a Tenescope?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 18:16:05 UTC
From: Rod Maupin <gridman@ywave.com>
Message-ID: <11r89v4lo7dll9f@corp.supernews.com>
Source record: 65884

This is off-topic, but I thought the old timers in this group might know about this.

I am involved in some scientific work and we have been trying to find information on a device that was around in the 1950s. It's called a Tenescope and it measured the number of lines (in two directions) in the Earth's magnetic field.

Is anyone familiar with this device? Thanks.

Rod KI7CQ

5287. Re: Ideas for Inside 144/440 Mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 18:16:58 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <R8SdnSgb98CTtSneRVn-tw@web-ster.com>
Source record: 65883

Gary KW4Z wrote:
> I am not looking to punch any holes in the walls or ceiling to get a coax
> from an outdoor 144/440 Mhz antenna. I'm setting up a mobile rig powered
> off an Astron Power Supply in order to allow my wife to communicate on some
> of the local repeaters so she can talk to and follow me into work.
>
> The antenna can be simple as something that has a magnetic mount that sets
> on top of the power supply or something that might present some measure of
> gain. If any of you have eny experience with either building antennas or
> have one you purchased that you really like I would love to know what it is
> and consider it to fit my needs.
>
> Thanks in advance
>
> Gary
>
I've had good success in the past with a mag mount on a pizza tin, set
on the highest cabinet that I could find. I've been considering a 1/4
wave ground plane hanging from a hook in the ceiling with a piece of
twine or some more attractive insulator to isolate it from the hook.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

5288. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 19:13:17 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <fe98r1tqofslaglom5s20emo66iq9l9fam@4ax.com>
Source record: 65885

On Thu, 29 Dec 2005 10:15:50 GMT, Owen Duffy <owen@no.where> wrote:

>On Thu, 29 Dec 2005 00:53:44 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>
>>You're making this way too complex (pun intended).. Why not just
>>connect the coax to the bridge and put your open-short-load standards
>>on the far end and do the calibration?
>>
>>Or move the instrument out in the field?
>
>Wes, I have been guessing that Dan wants to measure the antenna over a
>band of frequencies, and doesn't want to be popping up to the
>feedpoint for every frequency cal.

I've provided a spreadsheet that facilitates the calculations over a
range of frequencies.

www.qsl.net/n7ws/8405.zip

So a couple of trips to the end of the cable are all that are required
to calibrate the setup.

(I must confess, I haven't tried this program with a line much over a
few inches in length to determine whether my calibration functions can
handle it, but I think so.)

Without doubt, the chance of errors creeping in using a long cable is
increased, but the alternative of trying to "calibrate" a cable and
subtract its effects mathematically is equally suspect. In fact, the
one-step process is pretty much the same thing; the cable is being
characterized by the calibration process.

>
>No doubt, the process you propose Wes is simpler and more accurate, if
>it is physically convenient.
>
>Would calibration against a single s/c standard be accurate enough for
>the purpose at hand. Perhaps a coax relay at the antenna feedpoint to
>switch between a s/c port and the real load might be accurate enough
>for calibration, and a whole lot more convenient. IIRC there is only
>around 0.4dB of line loss from the shack (ie the desired VVM location)
>to the feedpoint.
>
>Dan, I think you have gotten on a sidetrack about building the

>transmission line out to a tuned length. It is not necessary, or even
>desirable as far as I can see, but it has the downside of complicating
>the calcs and increasing scope for errors when you build out with a
>different line type.
>
>Owen

5289. Re: Ideas for Inside 144/440 Mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 19:56:57 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <mnf8r11lfd9rejgt04ghcvhesp0qhqg27n@4ax.com>
Source record: 65886

On Thu, 29 Dec 2005 10:57:06 -0500, Gary KW4Z <kw4z@charter.net>
wrote:

>I am not looking to punch any holes in the walls or ceiling to get a coax
>from an outdoor 144/440 Mhz antenna. I'm setting up a mobile rig powered
>off an Astron Power Supply in order to allow my wife to communicate on some
>of the local repeaters so she can talk to and follow me into work.
>
>The antenna can be simple as something that has a magnetic mount that sets
>on top of the power supply or something that might present some measure of
>gain. If any of you have eny experience with either building antennas or
>have one you purchased that you really like I would love to know what it is
>and consider it to fit my needs.
>
>Thanks in advance
>
>Gary

A Larson dual bander whip, mag mount and metal serving platter,
sitting on the floor, works with reasonably close repeaters.

bob
k5qwg

5290. Re: Ideas for Inside 144/440 Mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 20:03:43 UTC
From: dplatt@radagast.org
Message-ID: <11r8g8v6rk3fqf0@corp.supernews.com>
Source record: 65887

In article <mnf8r11lfd9rejgt04ghcvhesp0qhqg27n@4ax.com>,
Bob Miller <NOSPAM@neosoft.com> wrote:

>>I am not looking to punch any holes in the walls or ceiling to get a coax
>>from an outdoor 144/440 Mhz antenna. I'm setting up a mobile rig powered
>>off an Astron Power Supply in order to allow my wife to communicate on some
>>of the local repeaters so she can talk to and follow me into work.

>>The antenna can be simple as something that has a magnetic mount that sets
>>on top of the power supply or something that might present some measure of
>>gain. If any of you have eny experience with either building antennas or
>>have one you purchased that you really like I would love to know what it is
>>and consider it to fit my needs.

>A Larson dual bander whip, mag mount and metal serving platter,
>sitting on the floor, works with reasonably close repeaters.

Certainly workable!

Another option is to build some sort of antenna right on one of the
windows, using either thin wire (hookup wire, or even Kynar-coated
wire-wrap wire) or adhesive-backed copper tape (can be found at stores
which sell stained-glass-construction supplies).

One configuration would be a J-pole-like antenna, with a matching stub.

Another would be a vanilla center-fed halfwave dipole.

A third would be a simple "slot" antenna.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

5291. Re: Ideas for Inside 144/440 Mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 20:27:35 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <FPWdnQAcZKwq2yneRVn-rg@comcast.com>
Source record: 65888

Mag mount on top of refrigerator

Gary KW4Z wrote:
> I am not looking to punch any holes in the walls or ceiling to get a coax
> from an outdoor 144/440 Mhz antenna. I'm setting up a mobile rig powered
> off an Astron Power Supply in order to allow my wife to communicate on some
> of the local repeaters so she can talk to and follow me into work.
>
> The antenna can be simple as something that has a magnetic mount that sets
> on top of the power supply or something that might present some measure of
> gain. If any of you have eny experience with either building antennas or
> have one you purchased that you really like I would love to know what it is
> and consider it to fit my needs.
>
> Thanks in advance
>
> Gary
>

5292. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 20:39:41 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <3bi8r1hbe2tiaoqbks47ka4nre50vqo2gv@4ax.com>
Source record: 65889

On 29 Dec 2005 15:48:27 GMT, Allodoxaphobia <bit-bucket@config.com>
wrote:

A fair amount of stuff turned off and..

Delete key. ;)

Allison

5293. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 21:22:33 UTC
From: Allison-nospam@nouce.bellatlantic.net
Message-ID: <pjk8r1p6k477chmi4angcab0qspraoehpt@4ax.com>
Source record: 65890

On Thu, 29 Dec 2005 09:53:21 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Bob Bob wrote:
>> And to complicate matters further the max antenna height being talked
>> about being around 3-4 wavelengths off the ground is going to break the
>> radiation pattern up into a number of lobes at various vertical angles.
>>
>> For that reason alone I think it is still worth modelling. There will be
>> specific heights where the horizontal radiated component is at a maximum
>> and this is likely the most desirable. . .
>
>Modeling will show that at great distances from the antenna, the
>horizontally radiated field is zero from any horizontally polarized
>antenna over ground.
>
>Roy Lewallen, W7EL

Please see http://www.cebik.com/vhf/ex6.html on the topic.

Near the end of the article he gets into the horizonatally polarized
less than 1WL interrupted loops typical of 6m (halos, squares and
triangles).

For more, he also has an article on HOHPLs (horizontally oriented
horizontally polarized loops 1WL and greater).

Worth reading and observing the models used.

Allison
Kb1GMX FN42HH

5294. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 21:34:39 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <fc1e83-tsn.ln1@p400bob.personal.cox.net>
Source record: 65891

True Roy

I should have said something like "approaches" the horizontal

Apologies for the mis-speak

I am also going to have to look into the theory of how much VHF
diffracts and bends so one can choose the right angles <grin>..

Cheers Bob

Roy Lewallen wrote:

> Modeling will show that at great distances from the antenna, the
> horizontally radiated field is zero from any horizontally polarized
> antenna over ground.
>
> Roy Lewallen, W7EL

5295. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 22:20:59 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b4608e_2@newsfeed.slurp.net>
Source record: 65892

>> Modeling will show that at great distances from the antenna, the
>> horizontally radiated field is zero from any horizontally polarized
>> antenna over ground.
>>
>> Roy Lewallen, W7EL

"Bob Bob" wrote
> True Roy. I should have said something like "approaches"
> the horizontal. Apologies for the mis-speak.

Pending some clarification from one of you (or anyone else) as to what is meant here, I point out that h-pol radiation directed toward an elevation at/near ground level has been, and still is the basis for very successful commercial broadcasting by FM and TV stations.

RF

5296. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 22:21:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r8oc77ik8ma4b@corp.supernews.com>
Source record: 65893

Roy Lewallen wrote:
>
> Modeling will show that at great distances from the antenna, the
> horizontally radiated field is zero from any horizontally polarized
> antenna over ground.

I need to clarify this. It's based on a theoretical model which doesn't apply in many practical cases. It assumes that the signal reaches the destination by two paths, direct and via reflection from the ground; that the ground is perfectly flat at the point of reflection; and the destination is very far from the source. The lower the elevation angle being observed, the farther the destination has to be for this effect to occur. For example, consider the field strength at an elevation angle of one degree from an FM transmitter whose antenna is 1000 feet above the average terrain. Neglecting Earth curvature (which probably shouldn't be neglected in this case), at a very distant point, the reflected signal which will interfere with the direct signal strikes the ground at a point about 11 miles from the transmitter. The receiver would have to be more than 22 miles away (and of course, higher in elevation than the transmitting antenna) for reasonable cancellation to occur. At a half degree elevation angle, the receiver would have to be twice that distance; at a quarter degree, four times, and so forth. Full cancellation at zero elevation angle would occur only at an infinite distance. In many practical situations, you can safely assume that the potentially interfering ground reflection takes place beyond the receiver, so a better estimation of received signal strength can be obtained by looking at the free space pattern.

Roy Lewallen, W7EL

5297. Fried eggs and yagi in the attic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 22:42:22 UTC
From: Bob Johnson <robjohn7@cox.net>
Message-ID: <IDZsf.35870$Mi5.22005@dukeread07>
Source record: 65894

Hi all:

Here's something I'm having trouble figuring out: My stereo FM receiver has a "fried egg" static that's almost strong enough to drown out the broadcast signal. I've tacked up a Radio Shack 300 ohm yagi in the attic over the garage and the static seems even worse.

Meanwhile the two cars in the garage below get the same signal very clearly. The yagi lead is coax all the way. The broadcast antenna is 15 miles to the west and the yagi is aligned north-south.

We'd appreciate any ideas, and Happy New Year!

Bob Johnson

5298. Re: Recommendation for 915MHz omni antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 22:47:14 UTC
From: David <webreply@orbitcoms.com>
Message-ID: <SHZsf.129540$V7.65639@news-server.bigpond.net.au>
Source record: 65895

Bob,

Thanks for the response.

The first is for a poultry house monitoring system that consists of
several "sheds" that may be several km away from the main house.
In addition to coms between the sheds and house, there are links between
sheds (hence require omni directional).

The antenna will be mounted no higher than 3km from the ground and
generally the ground between the antennas is flat.(some installations
may have mild undulations)

If I were to scale up the dimensions of the Super J-Pole shown on the
site, would I need to scale the element diameter too ? This would make
the element diameter less than 1mm at 915 MHz ?

Secondly, is it normal to make the 150MHz version and test it then scale
it up based on optimized dimensions from the lower frequency test ?

Regards

David Huisman

Bob Bob wrote:
> David
>
> You are going to have to be more specific as to your intended use.
>
> Assuming you are talking about being omnidirectional horizontally from
> the antenna, virtually any form of collinear construction would suit.
> This is provided the gain doesnt get so high and the vertical half power
> beamwidth doesnt get so narrow that your use of it drops out of the
> pattern. (These gain and beamwidth figures being inversely related)
>
> For ease of manufacture I'd probably go for a centrally fed collinear
> array with a number of 1/4 wave phasing sections. I'd feed it at the
> centre phasing section in a similar manner to a jpole but with a 4:1
> coaxial balun. You could make this antenna from (say) a single 3/16"
> copper pipe/wire length. This construction may not suit if you want to
> run it indoors but will be well suited to side tower mounting.
>
> A "super" jpole or one with a phasing section and extra half wave on top
> might be another option. Part the way through this page;
>
> http://www.cebik.com/vhf/jp4.html
>

> Something I havent proven to myself so please take this with a grain of
> salt, when feeding a vertical collinear antenna from its base very good
> feedline decoupling is needed to reduce the effect of skying the pattern
> from the antenna . What is more of a problem though (and what I havent
> researched) is that without allowing for power loss (through phasing
> delays etc) from one element to the next means you have the same
> radiation skying effect, the lower elements radiating more than the
> upper. One trick here is to mount then antenna inverted or complicate
> the construction with a centered feedpoint.
>
> I havent checked websites for 900MHz plans but I have heard that they
> are very popular. It may even be cheaper for you to purchase two medium
> gain commercial products (that required a groundplane) and arrange them
> like a dipole, feeding them through a 1/4 wave Q section. If an antenna
> is designed to be 50 ohms resistive over a ground it will be close to
> 100 ohms in dipole mode. (Making the Q section 75 ohms will do the trick)
>
> Hope this is helpful
>
> Cheers Bob VK2YQA
>
> David wrote:
>
>> The desired response is omni-directional with gain greater than or
>> equal to a 1/2 wave dipole, something that does not require a ground
>> plane
>> and is reasonably straight forward to manufacture in-house.

--

Kind Regards

David Huisman
General Manager

ORBIT COMMUNICATIONS Pty Ltd - Wireless Solutions that Work
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Fax : 61-2-4393-3685
Mobile: 61-413-715-986

5299. Re: Fried eggs and yagi in the attic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 23:09:49 UTC
From: Bob Johnson <robjohn7@cox.net>
Message-ID: <r1_sf.35872$Mi5.16114@dukeread07>
Source record: 65896

Bob Johnson wrote:
> Hi all:
>
> Here's something I'm having trouble figuring out: My stereo FM receiver
> has a "fried egg" static that's almost strong enough to drown out the
> broadcast signal. I've tacked up a Radio Shack 300 ohm yagi in the attic
> over the garage and the static seems even worse.
>
> Meanwhile the two cars in the garage below get the same signal very
> clearly. The yagi lead is coax all the way. The broadcast antenna is 15
> miles to the west and the yagi is aligned north-south.
>
> We'd appreciate any ideas, and Happy New Year!
>
> Bob Johnson

Sorry, meant to say "folded dipole" instaed of "yagi".

5300. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 23:32:42 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ies8r1hd0rssh7tudqh432sev85vqet2go@4ax.com>
Source record: 65897

On Thu, 29 Dec 2005 06:57:40 -0500, "Bill" <kc4pe@bellsouth.net>
wrote:

>Everything you need plus!!!!
>
>http://www.sengpielaudio.com/Calculations03.htm

A page full of calculators Bill, can you be more specific about a URL
for one that converts field strength to received power or vice-versa?

>
>
>Bill
>kc4pe@mindspring.com
>
>
>"Ron J" <bigschlong@gmail.com> wrote in message
>news:1135796014.460289.248300@g49g2000cwa.googlegroups.com...
>> Hey all,
>>
>> I'm still skeptical about this formula:
>>
>> Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>>
>> Is this valid? I saw this formula somewhere and jotted it down.
>>
>> Thanks!
>>
>
--

5301. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 23:34:02 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <dhs8r11rhuohbtuh04fqo8b2969469bhep@4ax.com>
Source record: 65898

On Wed, 28 Dec 2005 22:22:04 +0100, Ralf Ballis - DL2MRB
<dl2mrb@arcor.de> wrote:

>dBm significant the logarithm relation to Power (mW). In case of field
>strength or voltage (mV) you have to multiplication with 20.
>
>Take a look at:
>
>http://www.sengpielaudio.com/calculator-volt.htm
>http://www.nobbi.com/conversion.htm
>
>and very good:
>
>http://en.wikipedia.org/wiki/Decibel
>

Do any of these actually deal with field strength to receive power
conversion?

>Regards,
>
>Ralf
--

5302. Re: Recommendation for 915MHz omni antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 23:39:44 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <2n8e83-f3o.ln1@p400bob.personal.cox.net>
Source record: 65901

Hi David

Okay so you can afford to use a relatively high gain system. You also need to have the antennas high and clear as you can assume that 900MHz is line of sight. You could model the exact environment if you have non LOS paths. That will indicate whether it will work or not. Changes in antenna gain for an omni probably wont help much if the link is marginal when modelled. You could also establish whether you could (say) do the whole system with simple 1/4 wave whips! (A 6dB increase in power or combined antenna gain over an LOS path gives you twice the range)

If you are scaling an antenna yes you need to scale everything. I didnt suggest you scale the Cebik antenna, just wanted to show you the possibilities. It might however be more use to build an adjustable one and have some method of recording/measuring the field strength and changing dimensions for a maximum. I wouldnt call the super J pole an especially critical design for dimensions though. You could for example use 1/8" brazing rod for elements and make the length marginally shorter by the amount indicated in end effect tables. The more elements you have the more critical the dimensions and adjustment will become.

I would say it isnt normal to build at 150 for 900MHz. Too many variables to account for.

What is on 900MHZ? Is this a data network like 2.4GHz 802.11?? Will multipathing be an issue? (High data rates usually need directive antennas not only for a satisfactory S/N with gain, but also to reject any possble multipathing problem of a data bit arriving later than it should.)

Cheers Bob

David wrote:
> If I were to scale up the dimensions of the Super J-Pole shown on the
> site, would I need to scale the element diameter too ? This would make
> the element diameter less than 1mm at 915 MHz ?
>
> Secondly, is it normal to make the 150MHz version and test it then scale
> it up based on optimized dimensions from the lower frequency test ?
>

5303. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 23:40:50 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <rns8r1prrg73ud15mf5sbh8j9rip8jbmi3@4ax.com>
Source record: 65899

On Thu, 29 Dec 2005 12:13:17 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>I've provided a spreadsheet that facilitates the calculations over a
>range of frequencies.
>
>www.qsl.net/n7ws/8405.zip
>
>So a couple of trips to the end of the cable are all that are required
>to calibrate the setup.
>
>(I must confess, I haven't tried this program with a line much over a
>few inches in length to determine whether my calibration functions can
>handle it, but I think so.)

That's a good idea!

Wes, does it collect enough information to be able to correctly
calculate a phase constant on longer feedline. Some work for the next
version perhaps?

Owen

--

5304. Re: Fried eggs and yagi in the attic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-29 23:53:44 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <ah9e83-44o.ln1@p400bob.personal.cox.net>
Source record: 65900

A few comments;

Car FM radios tend to be far more sensitive than "Stereo's" that one sees in the home. They are also better shielded against noise.

I'd suggest your receiver has some major sensitivity issue (like a blown front end from a close lighting strike etc). Its unlikely but there could also be a local interferring source causing a problem. This would be very unusual on FM though. Can you hear other stations well?

As decribed the yagi is aligned at right angles to the station, where minimum signal will be! A check of connections and matching (you said 300 ohms then coax) will also be in order.

Cheers Bob Vk2YQA

Bob Johnson wrote:

>
> We'd appreciate any ideas, and Happy New Year!

5305. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 00:07:46 UTC
From: Ralf Ballis - DL2MRB <dl2mrb@arcor.de>
Message-ID: <43b47a8b_1@news.arcor-ip.de>
Source record: 65917

Owen Duffy wrote:

> Do any of these actually deal with field strength to receive power
> conversion?

At starting point I would say yes for those how know to use it.

Regards,

Ralf
--
Vy 73 es 55 de Ralf, DL2MRB
E-Mail: dl2mrb@arcor.de
www.hamradioboard.de

5306. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 00:10:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <dp1tt8$1tr$1@nwrdmz02.dmz.ncs.ea.ibs-infra.bt.com>
Source record: 65902

Roy, I prefer my radiation patterns to be functions of the antenna itself. After all, that's what it's all about.

To determine the field strength at a distance I prefer not to take any notice of Eznec's misleading ideas on the state of the ionosphere or groundwave loss and do my own calculations. Or I can follow up Eznec by using a program dedicated to either groundwave or ionospheric propagation.

I agree preferences will differ. But it is important to understand exactly what radiation patterns do or do not mean.

Please do not take this note as any criticism of Eznec. It is a valuable (and free) calculating resource. But, as you demonstrate, it is difficult to describe in a few words exactly what it does.

Please simplify!

Reg.

5307. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 01:50:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r94k79o5cr8ce@corp.supernews.com>
Source record: 65903

Owen Duffy wrote:
> On Thu, 29 Dec 2005 12:13:17 -0700, Wes Stewart <n7ws*@*yahoo.com>
> wrote:
>
>
>
>>I've provided a spreadsheet that facilitates the calculations over a
>>range of frequencies.
>>
>>www.qsl.net/n7ws/8405.zip
>>
>>So a couple of trips to the end of the cable are all that are required
>>to calibrate the setup.
>>
>>(I must confess, I haven't tried this program with a line much over a
>>few inches in length to determine whether my calibration functions can
>>handle it, but I think so.)
>
>
> That's a good idea!
>
> Wes, does it collect enough information to be able to correctly
> calculate a phase constant on longer feedline. Some work for the next
> version perhaps?

A potential problem is cable loss. When the line Z0 is close to the impedance being measured, loss doesn't have much effect. But if the two impedances are very different, a surprisingly small amount of loss can have a significant effect on the observed input impedance.

Of course, the short circuit measurement will give you the cable loss, which can then be used in the calibration process. It's just that you wouldn't be able to do the correction by the simple equivalent of a Smith chart rotation.

Roy Lewallen, W7EL

5308. Re: Fried eggs and yagi in the attic

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 02:01:43 UTC
From: mike.e.worrall@abc.com
Message-ID: <1135906796.350170.155080@g44g2000cwa.googlegroups.com>
Source record: 65904

How have you connected the 300 ohm dipole to the (assume) 75 ohm coax?
May I also assume you used a balun to properly make this transition?
Is your area served by more than one FM broadcast station? If so, are
the other stations also affected by the noise?

If so, you have a locally generated noise problem. Do this: Find a
small, portable, battery powered AM radio (like you'd take to the
ball-park to hear the play-by-play (!). Tune it to a very weak AM
radio station. Note: To do this, you may have to be some distance
away from you home, since we've already discovered it has RF noise
polution. As you approach you home, listen for the noise to increase,
while turning the receiver - that's turning with an 'r' - you're using
the receiver as a direction finder - listening for a peak in the noise.

In this way, you likely be able to pinpoint the noise source fairly
quickly.

Likely candidates include:

Light Dimmers
Fish Tank Heaters
Electric Blankets

MW

5309. Re: 6M stacked loops - best height above ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 02:12:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11r95tafkh00je5@corp.supernews.com>
Source record: 65905

Reg Edwards wrote:
> Roy, I prefer my radiation patterns to be functions of the antenna
> itself. After all, that's what it's all about.

That's just fine. All antenna modeling programs I know of allow selection of a free space environment, which gives you just what you want.

> To determine the field strength at a distance I prefer not to take any
> notice of Eznec's misleading ideas on the state of the ionosphere

EZNEC makes no assumptions about the state of the ionosphere, or even its existence.

or
> groundwave loss and do my own calculations.

The only assumption EZNEC makes in its far field analysis about ground wave loss is that at an infinite distance it's infinite. The professional EZNEC programs, which do directly report far field ground wave signal strength when requested, use the Norton approximations (implemented in NEC) which are widely accepted.

Or I can follow up Eznec
> by using a program dedicated to either groundwave or ionospheric
> propagation.
>
> I agree preferences will differ. But it is important to understand
> exactly what radiation patterns do or do not mean.

With that I agree wholeheartedly.

> Please do not take this note as any criticism of Eznec. It is a
> valuable (and free) calculating resource. But, as you demonstrate, it
> is difficult to describe in a few words exactly what it does.
>
> Please simplify!

First a note, EZNEC is not free. It's copyrighted, commercial software. Only the EZNEC demo program is free and can be copied and distributed freely.

Like other powerful tools, EZNEC requires some effort on the part of the user to understand its use. If you're not willing to make that effort, I suggest that you not use it, but find (or write) a program that suits you and your limited willingness to learn. [Give NEC-2 or MININEC a try!] All types of EZNEC, including the demo program, include a comprehensive and extensively indexed manual. I also recommend the ARRL

antenna modeling course, which numerous users have made positive comments about. But both of those are useful only to people who want more than to get a quick answer without taking any time to consider what the answer means.

I'll leave it to you and others to produce simple programs which do one specific, simple thing. There's a place for those, but also a place for more versatile programs like EZNEC which unavoidably require a bit more effort to fully use.

Roy Lewallen, W7EL

5310. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 02:50:52 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9479r1dhci3qoortqotfrd17g3l8hkqtvb@4ax.com>
Source record: 65906

On Thu, 29 Dec 2005 17:50:59 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Owen Duffy wrote:
>> On Thu, 29 Dec 2005 12:13:17 -0700, Wes Stewart <n7ws*@*yahoo.com>
>> wrote:
>>
>>
>>
>>>I've provided a spreadsheet that facilitates the calculations over a
>>>range of frequencies.
>>>
>>>www.qsl.net/n7ws/8405.zip
>>>
>>>So a couple of trips to the end of the cable are all that are required
>>>to calibrate the setup.
>>>
>>>(I must confess, I haven't tried this program with a line much over a
>>>few inches in length to determine whether my calibration functions can
>>>handle it, but I think so.)
>>
>>
>> That's a good idea!
>>
>> Wes, does it collect enough information to be able to correctly
>> calculate a phase constant on longer feedline. Some work for the next
>> version perhaps?
>
>A potential problem is cable loss. When the line Z0 is close to the
>impedance being measured, loss doesn't have much effect. But if the two
>impedances are very different, a surprisingly small amount of loss can
>have a significant effect on the observed input impedance.

Wes' procedure calibrates both loss and phase, but my suspicion is
that it does not calculate a correct phase constant for longer lines.
The loss constant is probably simple, assuming a straight line between
the two cal points, but that is probably adequate for the task given
the object being measured.

>
>Of course, the short circuit measurement will give you the cable loss,
>which can then be used in the calibration process. It's just that you
>wouldn't be able to do the correction by the simple equivalent of a
>Smith chart rotation.

Agreed, that was someone else's suggestion, and if the line on the Smith Chart was a lossless arc rather than a lossy spiral, some more error creeps in, and the error is larger as VSWR increases.

I knocked up a small spreadsheet solution myself, it uses the gamma (with a small g) figure returned by my line loss calculator at a frequency, and the line length to calculate the impedance transformation. (Gee Excel is ugly with complex numbers.)

A more general solution would be one that calculates the fundamental RLGC model from k1, k2, vf, and Zo, and can calculate the impedance transformation as a function of Gamma and freq. I have a Perl library that I use for such things, but it won't port to Excel very easily. (If only Microsoft would extend Excel's capabilities instead of renaming and relocating functions from version to version.)

It highlights the convenience of a direct reading impedance meter! Still, I can see the advantages of the VVM over an impedance bridge, and they are both in a different class to the MFJ.

Owen
--

5311. Re: Standing Waves (and Impedance)

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 03:48:31 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <5058r1l6srl6gav9thcsnapirfqb9ntam4@4ax.com>
Source record: 65907

On Tue, 27 Dec 2005 20:53:54 -0600, "Richard Fry" <rfry@adams.net>
wrote:

>"Gary Schafer" wrote
>> However if the TV video signal was an FM modulated signal rather than
>> AM then the sound sub carrier would not be visible without the main
>> video carrier if it was generated as a sub carrier.
>> The same happens with an FM broadcast SCA sub carrier or the stereo
>> sub carrier on the main signal. The main signal must first be
>> demodulated in order to demodulate any sub carrier.
>_____________
>
>The r-f spectra of TV aural signals and FM SCAs are standalone entities.
>Each may be fully demodulated by a suitable FM receiver capable of tuning to
>that r-f spectrum. No "main" carrier is needed. Given, this isn't the
>conventional practice -- however it would be possible to do.
>

It may be "visible" but it is not a standalone signal like a TV aural
signal is. With an SCA signal there is more than one side band on the
main carrier involved. With TV aural there is not.

73
Gary K4FMX

5312. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 03:56:20 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <nqb9r1l8sghh8hk41nqusfrq93hr6k333i@4ax.com>
Source record: 65908

On Thu, 29 Dec 2005 23:40:50 GMT, Owen Duffy <owen@no.where> wrote:

>On Thu, 29 Dec 2005 12:13:17 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>
>>I've provided a spreadsheet that facilitates the calculations over a
>>range of frequencies.
>>
>>www.qsl.net/n7ws/8405.zip
>>
>>So a couple of trips to the end of the cable are all that are required
>>to calibrate the setup.
>>
>>(I must confess, I haven't tried this program with a line much over a
>>few inches in length to determine whether my calibration functions can
>>handle it, but I think so.)
>
>That's a good idea!
>
>Wes, does it collect enough information to be able to correctly
>calculate a phase constant on longer feedline. Some work for the next
>version perhaps?

No next version. I've got an n2pk analyzer now. Much easier to use,
at least over its frequency range.

www.n2pk.com

5313. Re: coaxpair reflection coeff angle is 'zero'

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 04:19:24 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <1ic9r1h73fillr946ct77ab1868b5a9d2g@4ax.com>
Source record: 65909

On Fri, 30 Dec 2005 02:50:52 GMT, Owen Duffy <owen@no.where> wrote:

>On Thu, 29 Dec 2005 17:50:59 -0800, Roy Lewallen <w7el@eznec.com>
>wrote:
>
>>Owen Duffy wrote:
>>> On Thu, 29 Dec 2005 12:13:17 -0700, Wes Stewart <n7ws*@*yahoo.com>
>>> wrote:
>>>
>>>
>>>
>>>>I've provided a spreadsheet that facilitates the calculations over a
>>>>range of frequencies.
>>>>
>>>>www.qsl.net/n7ws/8405.zip
>>>>
>>>>So a couple of trips to the end of the cable are all that are required
>>>>to calibrate the setup.
>>>>
>>>>(I must confess, I haven't tried this program with a line much over a
>>>>few inches in length to determine whether my calibration functions can
>>>>handle it, but I think so.)
>>>
>>>
>>> That's a good idea!
>>>
>>> Wes, does it collect enough information to be able to correctly
>>> calculate a phase constant on longer feedline. Some work for the next
>>> version perhaps?
>>
>>A potential problem is cable loss. When the line Z0 is close to the
>>impedance being measured, loss doesn't have much effect. But if the two
>>impedances are very different, a surprisingly small amount of loss can
>>have a significant effect on the observed input impedance.
>
>Wes' procedure calibrates both loss and phase, but my suspicion is
>that it does not calculate a correct phase constant for longer lines.
>The loss constant is probably simple, assuming a straight line between
>the two cal points, but that is probably adequate for the task given
>the object being measured.
>
>>
>>Of course, the short circuit measurement will give you the cable loss,
>>which can then be used in the calibration process. It's just that you

>>wouldn't be able to do the correction by the simple equivalent of a
>>Smith chart rotation.
>
>Agreed, that was someone else's suggestion, and if the line on the
>Smith Chart was a lossless arc rather than a lossy spiral, some more
>error creeps in, and the error is larger as VSWR increases.
>
>I knocked up a small spreadsheet solution myself, it uses the gamma
>(with a small g) figure returned by my line loss calculator at a
>frequency, and the line length to calculate the impedance
>transformation. (Gee Excel is ugly with complex numbers.)
>
>A more general solution would be one that calculates the fundamental
>RLGC model from k1, k2, vf, and Zo, and can calculate the impedance
>transformation as a function of Gamma and freq. I have a Perl library
>that I use for such things, but it won't port to Excel very easily.
>(If only Microsoft would extend Excel's capabilities instead of
>renaming and relocating functions from version to version.)
>
>It highlights the convenience of a direct reading impedance meter!
>Still, I can see the advantages of the VVM over an impedance bridge,
>and they are both in a different class to the MFJ.

All good points and while not thinking too much about it (or at all really) the original problem was measuring the parameters of a loaded vertical. This sounds like a pretty narrowband problem. IF the line isn't too many wavelengths long and the frequency sweep isn't too wide, the phase rotation from one end of the frequency band to the other should be much less than one trip around the Smith chart and the loss variation should be minimal and for all intents linear.

5314. 2006 ARRL Antenna Handbook

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 04:22:51 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <vC2tf.54626$8d.23022@tornado.tampabay.rr.com>
Source record: 65910

Does anyone know when the 2006 ARRL Handbook & 2006 ARRL Antenna Handbook will be released? I understand that the 2005 had a major upgrade. I didn't buy it, thinking by now, I might as well wait for the 2006 issue. Thanks in advance.

west
AF4GC

5315. AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 04:31:59 UTC
From: Allan Jeal <allan_jeal@hotmail.com>
Message-ID: <43b4b83d$0$18201$afc38c87@news.optusnet.com.au>
Source record: 65911

Is it possible to get some fairly brief opinions without causing a war or even arguments ....
Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna" terminal is attached to one leg of a V (resonant at 14Mhz) and the earth terminal is connected to the other leg of the V (resonant at 7Mhz) without any additional grounding. Is there any reason to swap the legs around. Assume 100 watts max. It would be helpful if any opinions came from those who are familiar with the internals of the AH4. It would also be helpful if any repondents understood that others could have a differing opinion. de VK2DQC, Allan. tnx

5316. Re: 2006 ARRL Antenna Handbook

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 05:32:10 UTC
From: gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <c_udnSj7XMHCWynenZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 65912

"west" <westley@tampabay.rr.com> wrote in message
news:vC2tf.54626$8d.23022@tornado.tampabay.rr.com...
> Does anyone know when the 2006 ARRL Handbook & 2006 ARRL Antenna Handbook
> will be released? I understand that the 2005 had a major upgrade. I
> didn't
> buy it, thinking by now, I might as well wait for the 2006 issue. Thanks
> in
> advance.
>
> west
> AF4GC
>
Both the 2006 ARRL Handbook and the 20th edition (2006) Antenna Handbook are
sitting in my book shelf.

These have been advertised in QST in the last 2 issues.
I get a flyer for availability of ARRL publications about 4 times a year
(membership perk?) Ordered mine via ARRL Store web site the 2nd week of
December.
All arrived 1 week before Christmas.
http://www.arrl.org/catalog/

w9gb

5317. Antenna spacing

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 05:49:27 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <IT3tf.45644$ih5.19066@dukeread11>
Source record: 65913

I want to put a short 2 meter yagi and a long 70cm yagi on the same vertical mast. The 70cm will be a horizontally polarized, center mounted 17' boom and the 2 meter will be a vertically polarized, end mounted 6 foot boom. How far apart do they need to be? I will only be transmitting with one at a time but one could be receiving and the other transmitting, the 70cm will be for ATV receive only for now.

--
Chris W
KE5GIX

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5318. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 12:08:17 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <43b52275_1@newsfeed.slurp.net>
Source record: 65914

"Ron J" wrote
> I'm still skeptical about this formula:
> Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
> Is this valid? I saw this formula somewhere and jotted it down.

---

uV/m = 10^[(dBm - G + 20*log(F) + L +75)/20]

where

dBm = signal level at receiver input in dB with respect to 1 mW
G = receiving antenna gain in dBd
L = line loss in decibels
F = Frequency in MHz

RF

5319. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 13:29:35 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <addar1ho6e6vurkmn64ldp0aa3dkjrqpq8@4ax.com>
Source record: 65915

On Fri, 30 Dec 2005 15:31:59 +1100, "Allan Jeal"
<allan_jeal@hotmail.com> wrote:

>Is it possible to get some fairly brief opinions without causing a war or
>even arguments ....
>Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna"
>terminal is attached to one leg of a V (resonant at 14Mhz) and the earth
>terminal is connected to the other leg of the V (resonant at 7Mhz) without
>any additional grounding. Is there any reason to swap the legs around.
>Assume 100 watts max. It would be helpful if any opinions came from those
>who are familiar with the internals of the AH4. It would also be helpful if
>any repondents understood that others could have a differing opinion. de
>VK2DQC, Allan. tnx
>

If you do a Google search for the AH-4 -- there used to be someone
with a page that showed it hooked up to a dipole, using the ground lug
for one of the dipole elements.

bob
k5qwg

5320. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 14:33:26 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Wybtf.38937$dO2.11@newssvr29.news.prodigy.net>
Source record: 65916

Allan Jeal wrote:

> Is it possible to get some fairly brief opinions without causing a war or
> even arguments ....
> Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna"
> terminal is attached to one leg of a V (resonant at 14Mhz) and the earth
> terminal is connected to the other leg of the V (resonant at 7Mhz) without
> any additional grounding. Is there any reason to swap the legs around.
> Assume 100 watts max. It would be helpful if any opinions came from those
> who are familiar with the internals of the AH4. It would also be helpful if
> any repondents understood that others could have a differing opinion. de
> VK2DQC, Allan. tnx

Is it a 48 ft. dipole off-center-fed 16 ft. from the end?
If so, what do you seek to gain by off-center-feeding it?
--
73, Cecil http://www.qsl.net/w5dxp

5321. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 18:47:07 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-E1B2D9.09481230122005@netnews.worldnet.att.net>
Source record: 65918

In article <addar1ho6e6vurkmn64ldp0aa3dkjrqpq8@4ax.com>,
Bob Miller <NOSPAM@neosoft.com> wrote:

> On Fri, 30 Dec 2005 15:31:59 +1100, "Allan Jeal"
> <allan_jeal@hotmail.com> wrote:
>
> >Is it possible to get some fairly brief opinions without causing a war or
> >even arguments ....
> >Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna"
> >terminal is attached to one leg of a V (resonant at 14Mhz) and the earth
> >terminal is connected to the other leg of the V (resonant at 7Mhz) without
> >any additional grounding. Is there any reason to swap the legs around.
> >Assume 100 watts max. It would be helpful if any opinions came from those
> >who are familiar with the internals of the AH4. It would also be helpful if
> >any repondents understood that others could have a differing opinion. de
> >VK2DQC, Allan. tnx
> >
>
> If you do a Google search for the AH-4 -- there used to be someone
> with a page that showed it hooked up to a dipole, using the ground lug
> for one of the dipole elements.
>
> bob
> k5qwg
>

I have used similar setups in commercial service all over alaska.
We used SEA1612B Autotuners feeding twin Morad 2600 Loaded whips
in a dipole configuration. The only caviate that I would put out
is, that you might think about decoupling the Coax Feedline and
Power Leads by wrapping them in bifilar fashion on a suitable
torriod core. The above systems are still in use 15 years later,
and doing just fine on frequencies from 2.0 Mhz all the way up to
26 Mhz. the other thng that you must figure on, it that these type
of antenna tuners can't tune the 1/2 Wave Resonante Frequency of the
connected antenna. So, one must carefully consider just where the
1/2 Wavelength Resonance Point is, and place it in a portion of the
spectrum that your not going to want to transmit.

Bruce in alaska (AL7AQ)
--
add a <2> before @

5322. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 19:12:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <680br1972hkmalp1a4oh9gh3l6gj2vgn44@4ax.com>
Source record: 65919

On 28 Dec 2005 10:53:34 -0800, "Ron J" <bigschlong@gmail.com> wrote:

>Hey all,
>
>I'm still skeptical about this formula:
>
>Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>
>Is this valid? I saw this formula somewhere and jotted it down.

Hi Ron,

To answer your question - No.

For one its units do not balance. It is not finding ï¿½V/m it is simply
and incorrectly converting to ï¿½V. There is no meters to be found on
the right hand side of the equation. The 107, as has been pointed
out, is simply the number of dB below 1mW to a 1ï¿½V signal across 50
Ohms. Even here the formula is in error as the sign would be wrong
(the dBm must be presumptively loss expressed as a positive number).
To complicate it further is the artificially forced absolute value
which invalidates any Field Strength (sic) greater than one milliwatt.

You were right to be skeptical, it is nonsense.

73's
Richard Clark, KB7QHC

5323. FM transmitter in a vehicle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 21:04:13 UTC
From: Ron J <bigschlong@gmail.com>
Message-ID: <1135976653.858893.150990@g43g2000cwa.googlegroups.com>
Source record: 65920

Happy New Year!

If I have an FM transmitter in a vehicle, do I need to worry about the vibration frequency? Is there such a thing as intermodulation from vibrating objects attached to an FM transmitter?

I'm curious.

5324. Re: FM transmitter in a vehicle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 21:37:19 UTC
From: Antey <antey@o2.pl>
Message-ID: <dp49c2$5uv$2@nemesis.news.tpi.pl>
Source record: 65921

> Is there such a thing as intermodulation from
> vibrating objects attached to an FM transmitter?

Well, in case you have faulty coils inside the transmitter
- you may expirience something what one of my friends called
"microphoning" :) - their inductance may slightly change according
to the vibrations, which may lead to somewhat unruly behaviour
of the device.

Best Regards,
Peter

5325. Re: FM transmitter in a vehicle

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 22:14:04 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndrbc9c.1hkp.bit-bucket@shell.config.com>
Source record: 65922

```
On Fri, 30 Dec 2005 22:37:19 +0100, Antey wrote:
> > Is there such a thing as intermodulation from
>> vibrating objects attached to an FM transmitter?
>
> Well, in case you have faulty coils inside the transmitter
> - you may expirience something what one of my friends called
> "microphoning" :) - their inductance may slightly change according
> to the vibrations, which may lead to somewhat unruly behaviour
> of the device.

Your biggest problems might be microphonic tubes in the
mic-preamp and/or oscillator circuit. HI!HI!

HNY es 73
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK
```

5326. Access to archive

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 22:51:48 UTC
From: jawod <jawod@fuse.net>
Message-ID: <64c77$43b5ba04$42a1bfc2$28932@FUSE.NET>
Source record: 65923

I finally was able to get my newsreader to identify your group. I have
several questions about antennae (antennas?). Just getting back into
ham radio after nearly 30 year gap. Can someone direct me to your archives?

Thanks

John
formerly WB8FXM

5327. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 23:22:30 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o7gbr11h8ffh3br65941e9e43diiboc0rr@4ax.com>
Source record: 65924

On Fri, 30 Dec 2005 01:07:46 +0100, Ralf Ballis - DL2MRB
<dl2mrb@arcor.de> wrote:

>Owen Duffy wrote:
>
>> Do any of these actually deal with field strength to receive power
>> conversion?
>
>At starting point I would say yes for those how know to use it.

Perhaps you know how to use it and can explain how... it isn't self
evident.

>
>Regards,
>
>Ralf
--

5328. Re: Access to archive

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 23:23:17 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrndrbgb5.2j9d.bit-bucket@shell.config.com>
Source record: 65925

On Fri, 30 Dec 2005 17:51:48 -0500, jawod wrote:
> I finally was able to get my newsreader to identify your group. I have
> several questions about antennae (antennas?). Just getting back into
> ham radio after nearly 30 year gap. Can someone direct me to your archives?

http://groups.google.com/group/rec.radio.amateur.antenna?hl=en

HNY es 73
Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
Pueblo, Colorado | @ | Jonesy | OS/2 __
38.24N 104.55W | config.com | DM78rf | SK

5329. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 23:25:15 UTC
From: Allan Jeal <allan_jeal@hotmail.com>
Message-ID: <43b5c1dd$0$8451$afc38c87@news.optusnet.com.au>
Source record: 65776

Greetings Cecil, many thanks for your interest. (Hope you have a very exciting New Year riding around on your magnificent Harley)

The reasons for the particular configuration that I am playing with were originally clear but have become a little fuzzy over time. My aims are to make an antenna that is 1) transportable 2) light weight 3) ground independant 4) to be erected on a caravan in various caravan parks without upsetting everybody 5) quick to set up and pull down 6) gives me a few bands to play with 7) possibly even work to some degree !

After trying verticals, loops and dipoles I was ready to give up. Then I remembered a thing called a Vipole that was lying on the garage rafters. I paid hundreds of dollars for it but I could never make it work. It is a V with two lightweight fiberglass whips that each have an inductance coil half way along their length. They are marked 7Mhz (12' roughly) and 14Mhz (9'6" roughly). (((The original design stipulated that the whips feed into a Balun and then an UnUn transformer, and then use coax down to the rig))).

Anyway, I guessed that I could use the two lightweight whips - still in a Vee configuration. I decided to dump the Balun and the transformer and replace them with an auto tuner that I had lying around. So, now I have the first five criteria - all I have to do is make it ring on a few bands without smoke signals. So far it appears to receive well but I have serious doubts about its radiation properties (if any) - time will tell.

Allan

"Cecil Moore" <mycall@arrl.net> wrote in message
news:Wybtf.38937$dO2.11@newssvr29.news.prodigy.net...
> Allan Jeal wrote:
>
>> Is it possible to get some fairly brief opinions without causing a war or
>> even arguments ....
>> Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna"
>> terminal is attached to one leg of a V (resonant at 14Mhz) and the earth
>> terminal is connected to the other leg of the V (resonant at 7Mhz)
>> without any additional grounding. Is there any reason to swap the legs
>> around. Assume 100 watts max. It would be helpful if any opinions came
>> from those who are familiar with the internals of the AH4. It would also
>> be helpful if any repondents understood that others could have a
>> differing opinion. de VK2DQC, Allan. tnx
>
> Is it a 48 ft. dipole off-center-fed 16 ft. from the end?
> If so, what do you seek to gain by off-center-feeding it?
> --
> 73, Cecil http://www.qsl.net/w5dxp

5330. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 23:38:37 UTC
From: Allan Jeal <allan_jeal@hotmail.com>
Message-ID: <43b5c4fc$0$8451$afc38c87@news.optusnet.com.au>
Source record: 65777

Many thanks for your reply Bruce, your comments are very encouraging. I'm glad that you made the point -

> of antenna tuners can't tune the 1/2 Wave Resonante Frequency of the
> connected antenna. So, one must carefully consider just where the
> 1/2 Wavelength Resonance Point is, and place it in a portion of the
> spectrum that your not going to want to transmit.

I beleive that this same note is made in the AH4 documentation, thanks for the reminder, I'll look back at this. I'll also consider your thoughts re decoupling. And thanks for the tip on the Google search. I have actually tried the search on Google but may have been too quick to give up. Will do it again.

Cheers and have a great New Year
Allan

"Bruce in Alaska" <bruceg@btpost.net> wrote in message
news:bruceg-E1B2D9.09481230122005@netnews.worldnet.att.net...
> In article <addar1ho6e6vurkmn64ldp0aa3dkjrqpq8@4ax.com>,
> Bob Miller <NOSPAM@neosoft.com> wrote:
>
>> On Fri, 30 Dec 2005 15:31:59 +1100, "Allan Jeal"
>> <allan_jeal@hotmail.com> wrote:
>>
>> >Is it possible to get some fairly brief opinions without causing a war
>> >or
>> >even arguments ....
>> >Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna"
>> >terminal is attached to one leg of a V (resonant at 14Mhz) and the earth
>> >terminal is connected to the other leg of the V (resonant at 7Mhz)
>> >without
>> >any additional grounding. Is there any reason to swap the legs around.
>> >Assume 100 watts max. It would be helpful if any opinions came from
>> >those
>> >who are familiar with the internals of the AH4. It would also be helpful
>> >if
>> >any repondents understood that others could have a differing opinion. de
>> >VK2DQC, Allan. tnx
>> >
>>
>> If you do a Google search for the AH-4 -- there used to be someone
>> with a page that showed it hooked up to a dipole, using the ground lug
>> for one of the dipole elements.
>>

>> bob
>> k5qwg
>>
>
> I have used similar setups in commercial service all over alaska.
> We used SEA1612B Autotuners feeding twin Morad 2600 Loaded whips
> in a dipole configuration. The only caviate that I would put out
> is, that you might think about decoupling the Coax Feedline and
> Power Leads by wrapping them in bifilar fashion on a suitable
> torriod core. The above systems are still in use 15 years later,
> and doing just fine on frequencies from 2.0 Mhz all the way up to
> 26 Mhz. the other thng that you must figure on, it that these type
> of antenna tuners can't tune the 1/2 Wave Resonante Frequency of the
> connected antenna. So, one must carefully consider just where the
> 1/2 Wavelength Resonance Point is, and place it in a portion of the
> spectrum that your not going to want to transmit.
>
>
> Bruce in alaska (AL7AQ)
> --
> add a <2> before @

5331. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-30 23:56:20 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <dmgbr11ssdvcpu7mk18c0sptmlgjaqb4mf@4ax.com>
Source record: 65778

On Wed, 28 Dec 2005 22:04:40 GMT, Owen Duffy <owen@no.where> wrote:

> So, the lhs of your formulat is in units of
>dBuV/m, and assumes AF=0dB/m and 1Hz bandwidth. AF depends on antenna
>gain and frequency, and antenna / receiver R.

Sorry, whilst looking into the rhs I overlooked the 10^x/20... the lhs is in uV/m... but the formula does assume an Antenna Factor of 0db/m (and 1Hz bandwidth if talking about power densities).

Trying to find the minimal correction to your formula to make it work:

Field Strength (uV/m) = 10 ^ ((107 + RxPwr + AF) / 20)

Where:
o RxPwr is in dBm
o AF (=FS/Vin) includes matching effects and is in dB (1/m) (or dB/m for short)
o same bandwidth applies to both sides for continuous spectra

For a matched antenna in a 50 ohm system under plane wave conditions:

AF=20*log(9.73/lambda/gain^0.5)

Owen
--

5332. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 00:36:26 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5mjbr1lupob7ho09guihfkpalqhkd4vkoj@4ax.com>
Source record: 65779

On Fri, 30 Dec 2005 15:31:59 +1100, "Allan Jeal"
<allan_jeal@hotmail.com> wrote:

...
>Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna"
>terminal is attached to one leg of a V (resonant at 14Mhz) and the earth
>terminal is connected to the other leg of the V (resonant at 7Mhz) without
>any additional grounding. Is there any reason to swap the legs around.

What you intend doing will connect the "ground" rail of you tuner to
one side of the antenna, and unless you take other steps, the "ground"
rail of the tuner will be connected to the radio chassis via the coax
outer and the control cable. Perhaps the radio will be connected to
ground directly or indirectly.

This is not a lot different to feeding a dipole without a balun
(whether by coax or open wire line).

You might be concerned about whether the likely RF common mode
currents will disrupt or damage the control interface at the radio or
tuner.

There have been lots of reports of people doing what you propose, some
choke common mode currents below the tuner, sometimes with separate
chokes on the coax and control cable, some choke common mode currents
above the tuner, sometimes providing a local ground to the tuner, and
some do nothing.

I favour a choke above the ground mounted tuner, and a local ground on
the tuner to help to reduce the rf currents flowing on the coax and
control cables into the shack. I have done this with open wire feed
above the tuner to the dipole feedpoint and it worked fine without
noticeable "RF in the shack" problems.

I note that SGC is now producing an auto-tuner with balanced output,
but have no experience of its performance.

The main issue that I see with these tuners is the difficulty of
diagnosing faults and identifying faulty components for replacement,
and it makes me think twice about investing in them.

Owen
--

5333. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 00:43:06 UTC
From: Ralf Ballis - DL2MRB <dl2mrb@arcor.de>
Message-ID: <43b5d455_1@news.arcor-ip.de>
Source record: 65780

Owen Duffy wrote:

> Perhaps you know how to use it and can explain how... it isn't self
> evident.

Perhaps I can explain but it isn't necessary because you got the answer in
your last writing.

Regards,

Ralf
--
Vy 73 es 55 de Ralf, DL2MRB
E-Mail: dl2mrb@arcor.de

5334. Philystran Life?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 03:13:17 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <hHmtf.136$ZA2.87@newsread1.news.atl.earthlink.net>
Source record: 65781

How long does philystran last in use outdoors?

Doug

N4IJ

5335. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 03:23:31 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <TQmtf.40378$7h7.18447@newssvr21.news.prodigy.com>
Source record: 65782

Allan Jeal wrote:
> After trying verticals, loops and dipoles I was ready to give up. Then I
> remembered a thing called a Vipole that was lying on the garage rafters. I
> paid hundreds of dollars for it but I could never make it work. It is a V
> with two lightweight fiberglass whips that each have an inductance coil half
> way along their length. They are marked 7Mhz (12' roughly) and 14Mhz (9'6"
> roughly). (((The original design stipulated that the whips feed into a Balun
> and then an UnUn transformer, and then use coax down to the rig))).

OK, I think I've got it. Although the autotuner will probably
tune the system, the 20m element will probably be an inadequate
counterpoise on 40m and the 40m element may develop a lossy
self-resonance below 14 MHz. A 40 ft. dipole with the tuner
in the middle would probably outperform what you have in mind.
But that's just my opinion which is what you asked for. Don't
let me discourage you from experimenting.
--
73, Cecil http://www.qsl.net/w5dxp

5336. Re: Philystran Life?

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 04:58:45 UTC
From: Crazy George <gfm99@attglobal.net>
Message-ID: <43b61075@kcnews01>
Source record: 65783

Almost as long as the galvanizing will last on steel cable. Check their website www.phillystran.com/contact.htm , as I seem to recall it has service life data. Notice you misspelled it, as many do, it has 2 Ls.

--
Crazy George
W5VPQ
My real address is my ham call <at>ARRL.NET The ATTGlobal is a SPAM trap.
"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
news:hHmtf.136$ZA2.87@newsread1.news.atl.earthlink.net...
> How long does philystran last in use outdoors?
>
> Doug
>
> N4IJ
>
>

5337. Beautiful woman want to be your wife

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 05:09:00 UTC
From: wdluntan@gmail.com
Message-ID: <1136005740.400545.39500@f14g2000cwb.googlegroups.com>
Source record: 65784

Beautiful woman want to be your wife
http://groups.google.com/group/marrywithbeauty
Free to browse and subscribe photos and information of the beautiful
women,easy to create direct contact with them.Female can find good man
here too.

5338. Schematic for HP8405A Vector Voltmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 05:13:23 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Trotf.786$yW1.88@trnddc05>
Source record: 65785

Can anyone tell me where I can get a schematic of the probe for the HP 8405 Vector Voltmeter?

Thanks
Jerry

5339. Re: Schematic for HP8405A Vector Voltmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 05:59:01 UTC
From: dplatt@radagast.org
Message-ID: <11rc7h5h2pd6pea@corp.supernews.com>
Source record: 65786

> Can anyone tell me where I can get a schematic of the probe for the HP
>8405 Vector Voltmeter?

It can be found in the scanned copy of the ops-and-service manual for the 8405, which is in the HP section of the Boat Anchor Manual Archive site and its mirror.

Look for the 8405_service_6.pdf manual. The quality isn't great (a somewhat fuzzy scan of the Army-depot version of the HP manual, partially optical-character-converted into DejaVu and then turned into PDF) but it's probably usable.

From what I've read (I just bought one of these and am starting the test-and-refurbish process) the matched diodes are the most vulnerable components in the probes. The original parts are HP house-numbered and I assume they're no longer available. Some people have substituted 1N5711 Schottky diodes (easily available), others suggest 1N270 (gold-doped RF germanium diodes, still available), one gent suggested the HP/Agilent 5082-2815 which seems to be a matched-quad set of 5082-2811 Schottky diodes. The latter are probably the most sensitive but I'm a bit concerned about their low breakdown voltage. The 1N5711s have a higher threshold voltage but are a lot more rugged, I expect... don't know if they'll perform as well at high frequencies as the originals (whatever they are) or the alternatives. Other high-speed, low-threshold diodes (e.g. those intended for RF mixer and detector applications) could probably be used. No matter what you use, hand-matching pairs or quads would probably be a good idea.

The P-channel JFET in the probe was reported by one writer to be a 2N3379 but I don't know if that's correct. Possibly something like a MMBF546x part might be substituted?

The input capacitor is also sometimes damaged by overvoltage, I gather, and may need to be replaced as well.

There's a guy on eBay who sells a probe-repair kit... 8 diodes, 2 FETs, and instructions on doing the repair.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

5340. Re: Schematic for HP8405A Vector Voltmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 07:16:03 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <ntbcr15ij36puvcs8fopijtnkmosnviuq3@4ax.com>
Source record: 65787

On Sat, 31 Dec 2005 05:13:23 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

> Can anyone tell me where I can get a schematic of the probe for the HP
>8405 Vector Voltmeter?

www.qsl.net/n7ws/8405_Probe.pdf

5341. Re: Tri-Ex vs US Towers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 11:13:23 UTC
From: steve <lane17@llnl.gov>
Message-ID: <1136027603.607064.167280@g43g2000cwa.googlegroups.com>
Source record: 65788

Any more suggestions? I amlooking for folks with real world experience
with this tower. Thanks
Steve K9SL

5342. Re: Schematic for HP8405A Vector Voltmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 12:43:36 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Y1vtf.1925$zJ3.686@trnddc04>
Source record: 65789

Thanks Dave, I really appreciate your info about choosing the components
for these probes. I dont have the skills needed to build something like
this. I depend on being fed information from guys like you, and I
appreciate your input.
I did download a manual from BAMA. I thought I'd read it, but must have
missed the probe schematic.

Thanks again
Jerry

"Dave Platt" <dplatt@radagast.org> wrote in message
news:11rc7h5h2pd6pea@corp.supernews.com...
>> Can anyone tell me where I can get a schematic of the probe for the HP
>>8405 Vector Voltmeter?
>
> It can be found in the scanned copy of the ops-and-service manual for
> the 8405, which is in the HP section of the Boat Anchor Manual Archive
> site and its mirror.
>
> Look for the 8405_service_6.pdf manual. The quality isn't great (a
> somewhat fuzzy scan of the Army-depot version of the HP manual,
> partially optical-character-converted into DejaVu and then turned into
> PDF) but it's probably usable.
>
> From what I've read (I just bought one of these and am starting the
> test-and-refurbish process) the matched diodes are the most vulnerable
> components in the probes. The original parts are HP house-numbered
> and I assume they're no longer available. Some people have
> substituted 1N5711 Schottky diodes (easily available), others suggest
> 1N270 (gold-doped RF germanium diodes, still available), one gent
> suggested the HP/Agilent 5082-2815 which seems to be a matched-quad
> set of 5082-2811 Schottky diodes. The latter are probably the most
> sensitive but I'm a bit concerned about their low breakdown voltage.
> The 1N5711s have a higher threshold voltage but are a lot more rugged,
> I expect... don't know if they'll perform as well at high frequencies
> as the originals (whatever they are) or the alternatives. Other
> high-speed, low-threshold diodes (e.g. those intended for RF mixer and
> detector applications) could probably be used. No matter what you
> use, hand-matching pairs or quads would probably be a good idea.
>
> The P-channel JFET in the probe was reported by one writer to be a
> 2N3379 but I don't know if that's correct. Possibly something like a
> MMBF546x part might be substituted?
>
> The input capacitor is also sometimes damaged by overvoltage, I

> gather, and may need to be replaced as well.
>
> There's a guy on eBay who sells a probe-repair kit... 8 diodes, 2
> FETs, and instructions on doing the repair.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

5343. Re: Tri-Ex vs US Towers

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 12:45:14 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <11rcv8beo3n8e7f@corp.supernews.com>
Source record: 65790

Dear Steve K9SL:
Assuming that you wish the installation to be performed with reasonable (or larger) safety factors, you need the services of a professional engineer licensed in your state who has experience with towers and tower foundations. He or she will need engineering data from the manufacturer of the tower and from the possible suppliers of the new bottom section. He or she will need to know if there are exceptional facts about your site. They include wind experience, soil type, and expected antenna loads.

"Real world experience with" your tower, I submit, is of little value to the goal of having the tower installed with reasonable safety factors. Almost anything for a tower "bottom" will "work" for a while.

In lieu of professional assistance, the advice of Mr. Ferrell is of value.

It sounds as if you do not need to use anywhere near the safety factor I used in a recent tower installation that is in a populated area that is not too far from a several story building. The building can cause extra wind pressure. The top many feet of soil was just fill. Severe damage and risk to life could result from a failure. The resulting foundation removed all of the soil down to a hard-pan, built up the base a little with manufactured and well compacted soil, and then used enough reinforced concrete to counter-balance the tower even if there had been no soil on the sides of the foundation. I do not use such extreme measures with towers out in the country and well away from houses or people. However, my experience is that the wind loads under those circumstances are significantly above those specified by building codes. The building codes seem not to assume open spaces.

Good luck. Mac (and a P.E.) N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"steve" <lane17@llnl.gov> wrote in message
news:1136027603.607064.167280@g43g2000cwa.googlegroups.com...
> Any more suggestions? I amlooking for folks with real world experience
> with this tower. Thanks
> Steve K9SL
>

5344. Re: Schematic for HP8405A Vector Voltmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 12:48:47 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <P6vtf.1927$zJ3.29@trnddc04>
Source record: 65791

"Wes Stewart" <n7ws*@*yahoo.com> wrote in message
news:ntbcr15ij36puvcs8fopijtnkmosnviuq3@4ax.com...
> On Sat, 31 Dec 2005 05:13:23 GMT, "Jerry Martes"
> <j.jmartes@verizon.net> wrote:
>
>> Can anyone tell me where I can get a schematic of the probe for the HP
>>8405 Vector Voltmeter?
>
> www.qsl.net/n7ws/8405_Probe.pdf

Thanks alot Wes
I appreciate your having taken the time to send the probe schematic.

Jerry

5345. Re: Searching for circuit for active antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 15:10:28 UTC
From: yodar <strainster@gmail.com>
Message-ID: <1136041827.952039.23490@g43g2000cwa.googlegroups.com>
Source record: 65792

Save the effort and fuss, this one is an excellent KIT for less than
$50.00

Mine is in service and for SWL is sensational!

http://www.northcountryradio.com/Published/actant_0896/page1.htm

yodar

5346. Re: Searching for circuit for active antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 15:11:10 UTC
From: yodar <strainster@gmail.com>
Message-ID: <1136041870.401466.159430@g49g2000cwa.googlegroups.com>
Source record: 65793

Save the effort and fuss, this one is an excellent KIT for less than
$50.00

Mine is in service and for SWL is sensational!

http://www.northcountryradio.com/Published/actant_0896/page1.htm

yodar

5347. 2nd Floor grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 15:16:19 UTC
From: jawod <jawod@fuse.net>
Message-ID: <d7b53$43b6a0c4$42a1bfc2$17580@FUSE.NET>
Source record: 65794

After reading the archive regarding 2nd floor grounding, a couple of questions.

Outside of sufficiently thick gauge wire and proper depth to grounding rod. Are there any ELECTRICAL (nonRF) issues left to resolve for a 2nd floor ground?

Several articles referred to long grounding lines being close to 1/4 wavelength as being a problem. Is this eliminated with balanced feedline?

Thanks,

john

5348. Re: Schematic for HP8405A Vector Voltmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 15:20:25 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <43B6A1B9.3010804@comcast.net>
Source record: 65795

Jerry,

I have just completed bringing an 8405a back on line. The BAMA copy is mostly readable and certainly useable. My unit had a bad probe and a bad pulse amplifier. Otherwise it aligned very well.

The probes are managable to work. I ended up buying an .024 PC bit to clean the solder holes. This allowed placing the diodes directly and then soldering them.

The detected phase angle appears to be dependent on having a matched sampling efficiency between the probes. This is certainly level sensitive and may be frequency dependent. I have tried several diodes including the origenal HP diodes.

I use a DVM to measure diode forward voltage drop. The origenal diodes measure about 390 mv. NTE584s measure about 420 mv and can be tuned to match at about 98%. This in practice is usable. 1n5711s measured about 440 mv and can be tuned to match to about 90%. The instrument will appear work but the phase angles are incorrect due to the sampling errors. I am still looking for a better choice then the NTE584s.

Let us know what you find out. - Dan

Jerry Martes wrote:
> Can anyone tell me where I can get a schematic of the probe for the HP
> 8405 Vector Voltmeter?
>
> Thanks
> Jerry
>
>

5349. Re: 2nd Floor grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 15:51:45 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <52adr190uivec9du680b4hd7olru6rqbl6@4ax.com>
Source record: 65797

ORIGINAL MESSAGE:

On Sat, 31 Dec 2005 10:16:19 -0500, jawod <jawod@fuse.net> wrote:

>Several articles referred to long grounding lines being close to 1/4
>wavelength as being a problem. Is this eliminated with balanced feedline?
>
>Thanks,
>
>john

~~~~~~

No. You can not "ground" your station for RF, at least not in the
sense of running a wire to ground. Don't bother because it isn't
necessary anyway. You do need two kinds of ground, one for the AC
mains for safety, and one for lightning.

RF energy is expensive to generate. Don't waste it by running part of
it into a lossy "ground". Keep it up in the air where it belongs.
Baluns are your friend.

73, Bill W6WRT
~~~~~~

5350. Re: 2nd Floor grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 16:07:42 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <oN-dnSVOmoBTMSveRVn-vA@comcast.com>
Source record: 65796

jawod wrote:
> After reading the archive regarding 2nd floor grounding, a couple of
> questions.
>
> Outside of sufficiently thick gauge wire and proper depth to grounding
> rod. Are there any ELECTRICAL (nonRF) issues left to resolve for a 2nd
> floor ground?
>
> Several articles referred to long grounding lines being close to 1/4
> wavelength as being a problem. Is this eliminated with balanced feedline?
>
> SNIPPED

NO NO NO !!!

5351. Re: 2nd Floor grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 17:14:38 UTC
From: Amos Keag <A.K01@comcast.net>
Message-ID: <g66dnXmPTYXiISvenZ2dnUVZ_tudnZ2d@comcast.com>
Source record: 65798

jawod wrote:
> After reading the archive regarding 2nd floor grounding, a couple of
> questions.
>
> Outside of sufficiently thick gauge wire and proper depth to grounding
> rod. Are there any ELECTRICAL (nonRF) issues left to resolve for a 2nd
> floor ground?
>
> Several articles referred to long grounding lines being close to 1/4
> wavelength as being a problem. Is this eliminated with balanced feedline?
>
> Thanks,
>
> john

1) Make sure you have a good connection from equipment cases to AC Power main ground/earth. I use a 1/2 inch copper pipe on the table where my station is mounted. Each piece of equipment on the table, transceivers, amplifiers, power supplies, computer, are individually bonded to this copper pipe. This 1/2 inch copper pipe is then connected to earth ground by a #6 AWG wire run directly to the electrical service panel where it is connected to the earth connection.

2) If you use a 1/4 wavelength, or equivalent, vertical antenna you need a counterpoise, often called 'ground', at the base of the antenna.

3) A balanced feedline is used for a balanced antenna, e.g. dipole etc., to minimize RF coupling to the transmission line. The balanced line needs to run away from the antenna for a minimum of 1/4 wavelength at right angles to be effective. A dipole fed with coax cable needs a balun to produce a balanced signal to the antenna. The coax should also run away from the antenna at right angles for 1/4 wavelength to be effective in minimizin current on the coax. If you need to run from the antenna at less than 1/4 wavelength then a series of chokes or ferrites should be used to keep RF out of the house. These chokes/ferrites should be mounted at least 1/4 wavelength from the antenna.

5352. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 17:44:45 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <3aaaf$43b6c388$42512937$9681@DIALUPUSA.NET>
Source record: 65799

It is a little like asking how to convert giraffes to file cabinets. THere is no conversion factor from dBm to microvolts/meter. One is a power. One is a field strength.

Jim

> On 28 Dec 2005 10:53:34 -0800, "Ron J" <bigschlong@gmail.com> wrote:
>
>>Hey all,
>>
>>I'm still skeptical about this formula:
>>
>>Field Strength (uV/m) = 10 ^ ((107 - |dBm|) / 20)
>>
>>Is this valid? I saw this formula somewhere and jotted it down.

5353. Re: 2nd Floor grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 17:54:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <11rdheq3756jh85@corp.supernews.com>
Source record: 65800

Amos Keag wrote:
> . . .
> 3) A balanced feedline is used for a balanced antenna, e.g. dipole etc.,
> to minimize RF coupling to the transmission line. The balanced line
> needs to run away from the antenna for a minimum of 1/4 wavelength at
> right angles to be effective. A dipole fed with coax cable needs a balun
> to produce a balanced signal to the antenna. The coax should also run
> away from the antenna at right angles for 1/4 wavelength to be effective
> in minimizin current on the coax. If you need to run from the antenna at
> less than 1/4 wavelength then a series of chokes or ferrites should be
> used to keep RF out of the house. These chokes/ferrites should be
> mounted at least 1/4 wavelength from the antenna.

A symmetrical feedline is no guarantee of balance. Balance is achieved only when the two conductors carry equal and opposite currents, and that can be achieved with either coax or symmetrical feedline. Likewise, imbalance can occur with either type of feedline. You can learn more about the issue at http://eznec.com/Amateur/Articles/Baluns.pdf. That article doesn't mention imbalance caused by coupling to the antenna, which can occur if a dipole isn't symmetrical or if either type of feedline is asymmetrically placed relative to the antenna.

Roy Lewallen, W7EL

5354. Re: converting dBm to uV/m

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 19:21:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1hjdr1ta0t4bnu9pprsqmh0itgq03nb6k3@4ax.com>
Source record: 65801

On Sat, 31 Dec 2005 09:44:45 -0800, "RST Engineering"
<jim@rstengineering.com> wrote:

>It is a little like asking how to convert giraffes to file cabinets. THere
>is no conversion factor from dBm to microvolts/meter. One is a power. One
>is a field strength.

Hi Jim,

I would have to disagree with that. Field Strength is naturally
assumed to be a constituent of Free Space, or at least in a path
largely defined with an impedance of 120 ï¿½ pi Ohms. Volts and Current
are convertible through this. dBm is likewise related to an
impedance. It is classically 50, 75, 200, 600, or 1000 Ohms depending
upon industry usage. Without this understanding (often implicit
within those industrial applications) the comparisons of dBm citations
would become quite strained (for instance, computing gain/loss).

If posed this same query of translating dBm to Field Strength, I would
presume the underlying basis of comparison would be that same 120 ï¿½ pi
Ohms. This is hardly a stretch given Field Strength can also be
described in units of power and area. The proper usage in Field
Strength context would be
dB(re 1mW/mï¿½)
where dBm is frequently a short-hand for
dB(re 1mW into 600 Ohms)
or
dBm(600)
where, perhaps the user actually meant
dBm(50)
Hence, a bald citation of dBm carries a lot of implicit baggage.

Suffice it to say that there are a world of dB conventions for
expressing relationships.

The simple lesson learned from the original question is that when both
sides of the equation do not balance in their units; then that
equation is incorrect. There were more errors than that, but the lack
of balance was sufficient to condemn its usage.

73's
Richard Clark, KB7QHC

5355. Re: Schematic for HP8405A Vector Voltmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 19:48:06 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <WfBtf.6024$7x.4928@trnddc03>
Source record: 65802

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:43B6A1B9.3010804@comcast.net...
> Jerry,
>
> I have just completed bringing an 8405a back on line. The BAMA copy is
> mostly readable and certainly useable. My unit had a bad probe and a bad
> pulse amplifier. Otherwise it aligned very well.
>
> The probes are managable to work. I ended up buying an .024 PC bit to
> clean the solder holes. This allowed placing the diodes directly and then
> soldering them.
>
> The detected phase angle appears to be dependent on having a matched
> sampling efficiency between the probes. This is certainly level sensitive
> and may be frequency dependent. I have tried several diodes including the
> origenal HP diodes.
>
> I use a DVM to measure diode forward voltage drop. The origenal diodes
> measure about 390 mv. NTE584s measure about 420 mv and can be tuned to
> match at about 98%. This in practice is usable. 1n5711s measured about 440
> mv and can be tuned to match to about 90%. The instrument will appear work
> but the phase angles are incorrect due to the sampling errors. I am still
> looking for a better choice then the NTE584s.
>
> Let us know what you find out. - Dan

Hi Dan
I picked the 8405 out of a dumpster at a mil surplus place. Actually I
picked out two HP 8405A Vector Voltmeters. One is complete. The other had
one of its probes severed and I couldnt find that probe. I will try to
build two probes on boards with a BNC in place of the pointed probe.
I dont anticipate being able to make this Voltmeter an accurate
instrument. So, I wont be able to offer any data that anyone else would
want.

Jerry
>>

5356. Free Competition - Last few days!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 20:51:59 UTC
From: Richard g4tut <g4tut@southgatearc.org>
Message-ID: <iqrdr1p3s183a00143jupisfl1dml6lvss@4ax.com>
Source record: 65803

Free Competition - Last few days!

Our free competition to win an Icom IC-V82 handheld transceiver,
closes at midnight on the 4th of January, 2006.
So, you only have a few days left to get your entries in.
Remember, 'You've got to be in it to win it'

So go to http://www.southgatearc.org/competitions/ic-v82.htm
for your last chance of winning this fabulous prize.

Good Luck!

May I also take this opportunity to wish all readers a
Happy and Prosperous New Year

5357. Free Competition - Last few days!

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 20:57:04 UTC
From: Richard g4tut <g4tut@southgatearc.org>
Message-ID: <r3sdr19equ9u3lqm802ghg6taalb2nfufb@4ax.com>
Source record: 65804

Free Competition - Last few days!

Our free competition to win an Icom IC-V82 handheld transceiver,
closes at midnight on the 4th of January, 2006.
So, you only have a few days left to get your entries in.
Remember, 'You've got to be in it to win it'

So go to http://www.southgatearc.org/competitions/ic-v82.htm
for your last chance of winning this fabulous prize.

Good Luck!

May I also take this opportunity to wish all readers a
Happy and Prosperous New Year

5358. An Antenna for the FT-857D

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 21:09:53 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <BsCtf.38$bd.21@tornado.tampabay.rr.com>
Source record: 65808

Been away from Ham Radio for over 20 years and am ready to buy a Yaesu FT-857D (160-6 & 2; .7m, also 60m). I have a relatively small lot and was wondering with all those bands, what am I going to use for a good DX antenna(s). I have a dear friend in Australia that it would be great if I could hook up with him. Any thoughts? Thank you.

Cordially,
west
AF4GC (Tampa Bay, Florida)

5359. Re: 2nd Floor grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 21:16:30 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <j4tdr1dvgl0uf12eno2obpsoenm6kcmt8j@4ax.com>
Source record: 65806

ORIGINAL MESSAGE:

On Sat, 31 Dec 2005 12:14:38 -0500, Amos Keag <A.K01@comcast.net>
wrote:

>The balanced line
>needs to run away from the antenna for a minimum of 1/4 wavelength at
>right angles to be effective.

~~~~~~

Nonsense.

An unbalanced antenna and/or feedline can be VERY effective. Hams have
used them since the days of spark. All the unbalance does is change
the antenna pattern, not the effectiveness. It will be better in some
directions, worse in others.

73, Bill W6WRT
~~~~~~

5360. Re: 2nd Floor grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 21:16:38 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <s1tdr1h0e9raal8o80ajk60q92mes739u6@4ax.com>
Source record: 65807

ORIGINAL MESSAGE:

On Sat, 31 Dec 2005 12:14:38 -0500, Amos Keag <A.K01@comcast.net>
wrote:

>1) Make sure you have a good connection from equipment cases to AC Power
>main ground/earth. I use a 1/2 inch copper pipe on the table where my
>station is mounted. Each piece of equipment on the table, transceivers,
>amplifiers, power supplies, computer, are individually bonded to this
>copper pipe. This 1/2 inch copper pipe is then connected to earth ground
>by a #6 AWG wire run directly to the electrical service panel where it
>is connected to the earth connection.

~~~~~~

Why?

73, Bill W6WRT
~~~~~~

5361. Re: Ideas for Inside 144/440 Mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 21:19:10 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <11rdteenct18p09@corp.supernews.com>
Source record: 65805

I have a dualbander with a magmount stuck to the rig itself. It works
just fine.

KF5DE

Gary KW4Z wrote:
> I am not looking to punch any holes in the walls or ceiling to get a coax
> from an outdoor 144/440 Mhz antenna. I'm setting up a mobile rig powered
> off an Astron Power Supply in order to allow my wife to communicate on some
> of the local repeaters so she can talk to and follow me into work.
>
> The antenna can be simple as something that has a magnetic mount that sets
> on top of the power supply or something that might present some measure of
> gain. If any of you have eny experience with either building antennas or
> have one you purchased that you really like I would love to know what it is
> and consider it to fit my needs.
>
> Thanks in advance
>
> Gary
>

5362. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 22:23:15 UTC
From: Allan Jeal <allan_jeal@hotmail.com>
Message-ID: <43b704d1$0$26304$afc38c87@news.optusnet.com.au>
Source record: 65809

Yes Cecil, it is a "billy cart" antenna, and I guess that lots of antenna would outperform it - but I have to keep it within the criteria:
1) transportable 2) light weight 3) ground independant 4) to be erected on a caravan in various caravan parks without upsetting everybody 5) quick to set up and pull down 6) gives me a few bands to play with 7) possibly even work to some degree :-)
I will take Owen Duffy's advice to reduce RF getting back to "the caravan shack", then continue to experiment. At this stage it seems to receive very well, but waiting to get answers to my CQDX.

73 de VK2DQC "portable anywhere in Aus."

"Cecil Moore" <mycall@arrl.net> wrote in message
news:TQmtf.40378$7h7.18447@newssvr21.news.prodigy.com...
> Allan Jeal wrote:
>> After trying verticals, loops and dipoles I was ready to give up. Then I
>> remembered a thing called a Vipole that was lying on the garage rafters.
>> I paid hundreds of dollars for it but I could never make it work. It is a
>> V with two lightweight fiberglass whips that each have an inductance coil
>> half way along their length. They are marked 7Mhz (12' roughly) and 14Mhz
>> (9'6" roughly). (((The original design stipulated that the whips feed
>> into a Balun and then an UnUn transformer, and then use coax down to the
>> rig))).
>
> OK, I think I've got it. Although the autotuner will probably
> tune the system, the 20m element will probably be an inadequate
> counterpoise on 40m and the 40m element may develop a lossy
> self-resonance below 14 MHz. A 40 ft. dipole with the tuner
> in the middle would probably outperform what you have in mind.
> But that's just my opinion which is what you asked for. Don't
> let me discourage you from experimenting.
> --
> 73, Cecil http://www.qsl.net/w5dxp

5363. Re: AH4 tuner in the middle of an offset fed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 22:40:05 UTC
From: Allan Jeal <allan_jeal@hotmail.com>
Message-ID: <43b708c4$0$637$afc38c87@news.optusnet.com.au>
Source record: 65810

Many thanks for your input there Bruce, and have a great New Year.

VK2DQC

"Bruce in Alaska" <bruceg@btpost.net> wrote in message
news:bruceg-E1B2D9.09481230122005@netnews.worldnet.att.net...
> In article <addar1ho6e6vurkmn64ldp0aa3dkjrqpq8@4ax.com>,
> Bob Miller <NOSPAM@neosoft.com> wrote:
>
>> On Fri, 30 Dec 2005 15:31:59 +1100, "Allan Jeal"
>> <allan_jeal@hotmail.com> wrote:
>>
>> >Is it possible to get some fairly brief opinions without causing a war
>> >or
>> >even arguments ....
>> >Is it likely to damage an Icom AH4 auto antenna tuner if the "antenna"
>> >terminal is attached to one leg of a V (resonant at 14Mhz) and the earth
>> >terminal is connected to the other leg of the V (resonant at 7Mhz)
>> >without
>> >any additional grounding. Is there any reason to swap the legs around.
>> >Assume 100 watts max. It would be helpful if any opinions came from
>> >those
>> >who are familiar with the internals of the AH4. It would also be helpful
>> >if
>> >any repondents understood that others could have a differing opinion. de
>> >VK2DQC, Allan. tnx
>> >
>>
>> If you do a Google search for the AH-4 -- there used to be someone
>> with a page that showed it hooked up to a dipole, using the ground lug
>> for one of the dipole elements.
>>
>> bob
>> k5qwg
>>
>
> I have used similar setups in commercial service all over alaska.
> We used SEA1612B Autotuners feeding twin Morad 2600 Loaded whips
> in a dipole configuration. The only caviate that I would put out
> is, that you might think about decoupling the Coax Feedline and
> Power Leads by wrapping them in bifilar fashion on a suitable
> torriod core. The above systems are still in use 15 years later,
> and doing just fine on frequencies from 2.0 Mhz all the way up to
> 26 Mhz. the other thng that you must figure on, it that these type
> of antenna tuners can't tune the 1/2 Wave Resonante Frequency of the

> connected antenna. So, one must carefully consider just where the
> 1/2 Wavelength Resonance Point is, and place it in a portion of the
> spectrum that your not going to want to transmit.
>
>
> Bruce in alaska (AL7AQ)
> --
> add a <2> before @

5364. Re: 2006 ARRL Antenna Handbook

Newsgroup: rec.radio.amateur.antenna
Date: 2005-12-31 23:42:47 UTC
From: w1rfi@arrl.org
Message-ID: <1136072567.144309.145550@z14g2000cwz.googlegroups.com>
Source record: 65811

> "west" <westley@tampabay.rr.com> wrote in message
> news:vC2tf.54626$8d.23022@tornado.tampabay.rr.com...

> Does anyone know when the 2006 ARRL Handbook & 2006 ARRL Antenna Handbook
> will be released? I understand that the 2005 had a major upgrade. I
> didn't buy it, thinking by now, I might as well wait for the 2006 issue. Thanks
> in advance.
>
> west
> AF4GC

The ARRL Antenna Book goes through a major revision every few years.
The 20th Edition is the current edition. I have every edition of the
Antenna Book and each has a unique presentation of enough of its
material to warrant the purchase, IMHO.

ARRL does some degree of revision to the Handbook every year, with the
2006 being a pretty heavy revision. What I suggest hams do is to watch
the ads and note which chapters were given major revisions. When you
see chapters whose subject topic interests you, it is probably worth
buying the Handbook that year.

Ed